

## **PERSPECTIVES OF THE BELT AND ROAD INITIATIVE FOR STRENGTHENING REGIONAL ECONOMIES IN BRAZIL: THE CASE OF GOIÁS**

Aline Regina Alves Martins\*, Kaillany Azevedo Batista\*\* & Letícia Miyashiro Cazorla Barbosa\*\*\*

**ABSTRACT:** This article aims to analyze the extent to which Brazil's formal participation in the Belt and Road Initiative contributes to the enhancement of the agricultural sector in Goiás, the third largest grain producer and a major exporter in Brazil. Situated in the heart of the country, Goiás ranks eighth among Brazilian exporters and holds the second position in soybean exports. The majority of Goiás' Gross Domestic Product is derived from agribusiness, with China serving as its primary market for agricultural products, accounting for 46.28% of Goiás' total exports in 2021. Considering Brazil's status as the primary recipient of Chinese investments in Latin America, the Belt and Road Initiative presents a significant opportunity for Goiás to bolster its infrastructure, logistics, and technological capabilities for the production and distribution of its products. Furthermore, it provides a platform for diversifying the range of products exported to China, aligning with Goiás' internal economic strategy. The research will employ documentary and bibliographical analysis, supplemented by primary data extracted from ComexStat—a ministerial system for consulting data on Brazilian foreign trade.

**KEYWORDS:** Brazil and China economic relations – Belt and Road Initiative – Goiás economy

### **INTRODUCTION**

This paper aims to contribute to the discussion about Brazil's potential formal engagement in the Belt and Road Initiative within the agricultural sector of Goiás. Goiás is the country's third-largest grain producer and a significant exporter. Located at the geographical center of Brazil, Goiás ranks eighth among the nation's exporters and second in soybean exports. The majority of Goiás' Gross Domestic Product originates from agribusiness, and China plays a pivotal role as the primary market for its agricultural products, representing 46.28% of Goiás' total exports in 2021. Its exports contribute to over 10% of Brazil's positive trade balance (CREAGO, 2023).

Brazil is the primary recipient of Chinese investments in Latin America. From 2005 to 2020, Brazil received 47% of Chinese investments destined for Latin America. Between 2007 and

---

\* Adjunct professor of undergraduate and postgraduate courses in International Relations. Specialist in International Political Economy. Ph.D. in Political Science.

\*\* International Relations undergraduate student at the Federal University of Goiás. Assistant researcher at the National Institute for the Study of the United States (INCT - INEU) and the Global Studies Center at the Federal University of Goiás (NEG).

\*\*\* International Relations undergraduate student at the Federal University of Goiás. Assistant researcher at the National Institute for the Study of the United States (INCT - INEU) and the Global Studies Center at the Federal University of Goiás (NEG).

2020, 48% of the total confirmed investment stock was allocated to the electric power sector. This sector attracted 97% of the confirmed Chinese investments in 2020 (Cariello, 2021).

In this context, the Belt and Road Initiative presents a significant opportunity for Goiás to enhance its infrastructure, logistics, and technological capabilities for the production and distribution of its products. Furthermore, it provides a platform for diversifying the range of products exported to China, aligning with Goiás' internal economic strategy. The administration in Goiás has outlined initiatives to add more complexity to the state's agricultural and livestock production. There is a deliberate effort to promote advanced processing of grains and beef production geared towards exports (Lavoratti, 2020). Such measures have the potential to inject greater dynamism into the state's economy, diversify it, and foster technological advancements in the region.

This paper is organized as follows: In section I, we describe the strategic importance of Goiás' agribusiness to Brazil. Afterward, we provide a brief overview of the history of trade and the relationship between China and Brazil (section II), focusing on qualitative analysis that explains the differing characteristics of Brazilian and Chinese export and import patterns. We also emphasize the lower dynamization of the Brazilian economy and its increased reliance on China for foreign trade. Moreover, we discuss the need to expand the variety of goods exported from Brazil to China, which presents an excellent opportunity to strengthen Goiás' regional economy. In section III, we delve into the hurdles faced by Goiás and its quest for innovation and industrialization, considering new possibilities with the Belt and Road Initiative. With the potential for new investments from China, we debate how this can boost the effective integration of Goiás into the international market, particularly within the infrastructure sector. Finally, we provide a concluding section that summarizes our findings.

### **I. The strategic importance of Goiás' agribusiness to Brazil**

Located in the Midwest, Goiás is one of the 26 Brazilian states. Besides being the seventh largest in territorial extension, occupying a total of 360,106 km<sup>2</sup>, it also stands out as the eighth-largest exporter in the country (CREAGO, 2023). It is the ninth-largest economy in the nation, with a GDP of R\$208.7 billion, representing 2.8% of Brazil's total GDP (IMB, 2022). Moreover, Goiás presents itself as an extremely promising state, with its exports growing by 50.7% in 2022 compared to 2021, reaching a record gain of US\$14.025 billion (CREAGO, 2023). Its expansion surpasses the national average by 19.6%, and its exports account for over 10% of Brazil's positive trade balance (CREAGO, 2023).

The driving force behind such expansive export growth is its agribusiness sector. Its agricultural trade is highly diversified, including soybean, sorghum, corn, sugarcane, beans, and tomatoes (IMB, 2022). According to data from The Brazilian Institute of Geography and Statistics (IBGE) for the year 2020, Goiás has seventeen municipalities among the top 10 in terms of agribusiness production values in the country. In the case of sorghum alone, Goiás holds five positions, with Rio Verde ranking first, Goiatuba second, Cristalina third, Paraúna fourth, and Acreúna ninth. Nevertheless, soybeans play a paramount role in Goiás' economy, representing 55% of the state's exported products (Creago, 2023).

In this scenario, Cristalina and Rio Verde stand out, ranking seventh and ninth, respectively, in the national production value ranking (IBGE, 2020). Rio Verde, in particular, is Goiás' largest soybean producer accounting for 30% of the state's total exports in 2022 (Exame, 2022).

Besides being considered the wealthiest city in agricultural production in Brazil by IBGE in 2009, it was also named by the Urban Systems consultancy ranking as the best municipality for agribusiness dealings (Exame, 2022).

However, Goiás' importance for Brazilian agribusiness goes beyond its weight in the country's trade balance. It also lies in the factors that enable achieving these numbers. Whether due to its strategic location or technological park, the state influences the dynamism of agribusiness throughout Brazil, as national progress in the field relies on regional investments to expand such strategic characteristics.

Firstly, one can observe the centrality of the state and the transportation possibilities it offers. In this regard, Goiás contains the municipality of Anápolis, which has established itself as one of the main distribution centers in the country since it can reach 75% of the entire Brazilian consumer market within a 1,000-kilometer radius (IMB, 2022). Most of the country's capitals are about a two-hour flight away. This quality allows Goiás' agribusiness to enjoy logistical advantages and reduced transportation costs. For these reasons, the municipality is known as "Trevo do Brasil" (Brazil's Crossroads).

Still, under this perspective, Anápolis also houses an Interior Customs Station, the Centro Oeste S/A Dry Port. As a public-use customs terminal, it stores and handles national, imported, or export-bound goods, significantly facilitating international trade. In addition to its enormous structure and capacity to handle large flows of goods, it also offers competitive advantages. Among them, the most prominent is its location, the best in the entire Brazilian interior due to its proximity to the junction of important highways, as well as being intersected by the North-South and Centro-Atlântica railways, which will be described later in this text (Grupo Porto Seco, 2020). Thus, the Dry Port provides another logistical advantage to Anápolis which with the completion of the North-South railway, also becomes a milestone (IMB, 2022).

**Figure 01: Goiás' capital, Goiânia, location concerning other Brazilian capitals.**



Source: Instituto Mauro Borges, 2022.

Furthermore, Goiás is strategically equipped with 25 thousand kilometers of highways (Goinfra, 2022). Notably, the BR-153 highway connects the north to the south of the country, while the BR-060 links the Federal District, Goiânia (the capital of Goiás), and Mato Grosso do Sul. Additionally, the BR-050 stands out, connecting the Federal District to the southeast of Brazil. The São Simão Port, located on the Tietê-Paraná Waterway, is also an integral part of the logistics network, with its crucial section linking São Simão in Goiás to Pederneiras in São Paulo, essential for the transportation of soybeans, soybean meal, and corn (IMB, 2022).

Especially noteworthy are the important national-level railway projects that serve Goiás. The previously mentioned North-South Railway is emphasized. Inaugurated in June 2023 by President Luiz Inácio Lula da Silva in the city of Rio Verde, it connects Goiás to the Northern Region of the country. The state is also traversed by the Centro Atlântica Railway, linking it to the Southeast region up to the Port of Santos in São Paulo. Additionally, the Transcontinental Railway is under construction, with expectations to cover approximately 4,400 km within Brazil alone (Valec, 2022). It will connect the Atlantic and Pacific Oceans in Peru, facilitating the smoother transit of goods coming from the Middle East and Asia, including China, both Brazil's and Goiás's primary commercial partner.

Lastly, all these transportation modes can be better interconnected through the Multimodal Logistics Platform of Goiás, currently being implemented in Anápolis. By incorporating air freight terminals, an international cargo airport, and railway loading and unloading centers, the Platform will further advance the state's logistical capabilities.

With all these networks combined, Goiás not only emerges as an agribusiness powerhouse due to its significant production but also as a major distributor of the entire production chain that comprises this Brazilian sector. Consequently, it enhances transportation possibilities, facilitates foreign trade, and reduces costs and risks in the export process.

Another crucial aspect of Goiás' position within Brazilian agribusiness is its investments in technologies geared towards progress, combining cutting-edge sustainable technology. These actions are coordinated through the State Secretariat for Science, Technology, and Innovation (Secti). It formulates and executes policies and programs for scientific, technological, and innovative development, as well as attracting national and international technology-based investments (SECTI, 2023).

This secretariat collaborates with other state institutions, such as the Foundation for the Support of Research in the State of Goiás (FAPEG), which funds scientific, technological, and innovative research projects through various levels of scholarships (FAPEG, 2023). Additionally, in partnership with UNESCO and the Brazilian Agency for Cooperation (ABC), it promotes public policies and supports economic development programs through innovation ecosystems. This cooperation, known as Prodoc, has established the institutional, technical, and methodological conditions for the foundation of the Goiás Technological Parks Program, PGTec. Modeled after developed countries, these parks play a crucial role in generating and decentralizing technological knowledge in the state (SECTI, 2021).

These initiatives also align with and support field-specific endeavors, such as the Center of Excellence in Exponential Agriculture (CEAGRE). Established in partnership with the Municipality of Rio Verde, it is committed to developing technologies directly for the field,

optimizing crop and livestock management for small and large producers, and encompassing the entire agribusiness chain. Consequently, technologies such as the Internet of Things (IoT), Big Data, Cyber-Physical Systems (CPS), and others contribute to what is known as Agro 4.0 (CEAGRE, 2023).

To expand these initiatives, the government of Goiás invested in 2020 in the second CEAGRE of the state, located at the Innovation Center of the Goiano Federal Institute, a public institution for higher, basic, and professional education, also in Rio Verde. Over five years, the government plans to allocate R\$15 million to fund projects. Additionally, an additional R\$35 million is expected to be raised from other public and private sources, bringing the total to R\$50 million (Governo de Goiás, 2020).

Among the projects developed, notable recent implementations include Goiás becoming the first state in the country in 2020 to activate a 5G network focused on agriculture, opening up new possibilities for IoT in agriculture in Rio Verde. These innovations aim to improve efficiency and shorten the time for planting inspection, significantly reducing the period it takes to analyze contaminated areas, for example, from a week to just one hour (SGG, 2020).

The state's pioneering spirit in technological matters is further exemplified by investments in bio-inputs, which began in early 2022 through the project to structure a Center of Excellence in Bio-inputs (CEBIO). As a result, Goiás will host the largest Brazilian innovation ecosystem in this area, receiving R\$8 million from Fapeg to establish nine biofactories (FAPEG, 2021).

Thus, Goiás stands out as a state of paramount importance for Brazilian agribusiness. It holds significant representations in the country's trade balance, not only in various agricultural productions but also in Brazil's main exported product. However, its influence is not limited solely to this aspect, as the state also plays a crucial role in distributing goods throughout the country due to its strategic location. Finally, Goiás is also an important hub for agro-technology development, dedicated to initiatives that aim for sustainability and maximization of production, while reducing costs and risks.

## **II. The History of Trade and Relationship Between China and Brazil**

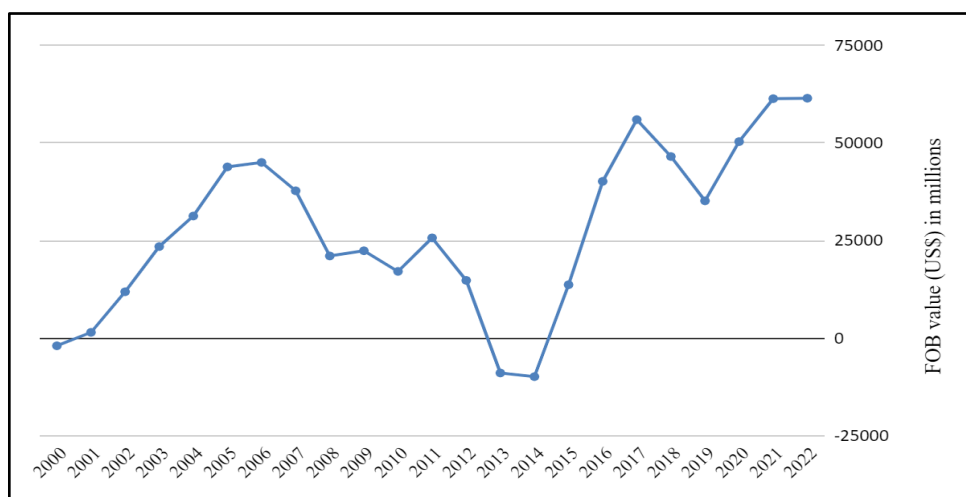
The relationship between China and Brazil dates back to the Brazilian imperial period when Plenipotentiary Ministers were sent to China in 1879. This interest in the East Asian country arose due to the growing need for importing foreign paid labor in the context of the decline of the Brazilian slavery system. However, this migratory flow was not successful in Brazil, with most immigrants from East Asia coming from Japan afterward. The 20th century unfolded with many paradigm shifts in politics for both countries, spanning from the First and Second World Wars to the Cold War. In this regard, the relations between Brazil and China, particularly in trade, became misaligned, with Brazil having stronger alliances with countries from the West, until 1973, when diplomatic relations were restored. From that period onwards, China was able to amass economic power and organize its institutions to generate more interest from the West (Silva, 2022).

However, the commercial relations between the two countries became more dynamic in the 21st century, within the context of the formation of the diplomatic coalition BRICS (Brazil, Russia, India, China, South Africa, and, since August 2023, Argentina, Egypt, Iran, Ethiopia, Saudi Arabia, and the United Arab Emirates) and the commodities boom. The first foundation of this context occurred with the strengthening of diplomatic ties among the most promising

developing countries in the global economy, based on GDP analyses conducted in 2001. This led to a movement towards the establishment of the New Development Bank (BRICS Bank) as a countermeasure to the insufficient action of the IMF and the World Bank in addressing the needs and demands of developing countries (Deus et al., 2019).

The second foundation mentioned and the main subject of this session is based on the improvement of the Chinese population's standard of living through increased income and economic growth, which changed Chinese dietary patterns, resulting in increased consumption of grains and their derivatives, as well as animal protein, particularly pork. This shift in dietary patterns, given the population size that already exceeded one billion people at the time (World Bank, 2023), significantly increased international demand for these products, leading to a surge in commodity prices, commonly referred to as the "commodities boom" (Escher & Wilkson, 2019). The commodities boom highlights the main pillar sustaining the recent commercial relations between Brazil and China and it was extremely beneficial to the Brazilian economy, especially regarding its trade balance, providing a series of economic surpluses, as shown in Chart 01, and turning China into Brazil's primary economic partner since 2009 (Silva, 2022).

**Chart 01: Evolution of the Brazilian trade balance since the beginning of the Commodities Boom (2000-22)**



Source: Own Elaboration (data from COMEXSTAT, 2023).

Through the data, it is possible to see a very steep progression in the trade balance at the beginning of the commodities boom phenomenon and its settlement onwards, marked mostly by surpluses, indicating the benefits of the commercial relationship between Brazil and China. In this regard, this trade, primarily based on Agribusiness, underscores the importance of focusing on Brazilian states known for their reliance on this type of production, such as the state of Goiás.

Despite that, some authors claim that although the trade seems to be benign in the short term, in the long run, it promotes asymmetric consequences for the dynamization of Brazil's economy. In this regard, Leite and Netto (2018) assert that this partnership is quantitatively positive to the economy in Brazil, but a qualitative analysis shows that Brazilian exports and Brazilian imports from China have different characteristics.

That is demonstrated by the comparison of the added value and the diversity between the exported products (Table 01) and the imported products from China (Table 2). Therefore, the Brazilian side is committed to commodities, unprocessed or barely processed goods, while China sells to Brazil high technology products, hence, with more added value and complexity, promoting a lower dynamization of the Brazilian economy and a bigger reliance on China for foreign trade.

**Table 01: Main products exported to China from Brazil in 2022**

<b>PRODUCTS</b>	<b>PROPORTIONS (%)</b>
Soybeans	36%
Iron ore and its concentrates	20%
Crude petroleum oils or crude oils from bituminous minerals	18%
Fresh, chilled, or frozen beef	8,9%
Others	17,1%

Source: Own Elaboration (data from COMEX STAT, 2023).

Therefore, four products accounted for approximately 82.9% of Brazilian exports to China in 2022. Furthermore, these products are of low added value, coming from the extractive industries and, as expected, from agriculture and livestock. Although it's still profitable, as shown in the data from Chart 01, the low diversification of products and their lack of productive complexity sign a need for expanding the variation of exported goods from Brazil, which can be an excellent opportunity to strengthen Goiás' regional economy.

**Table 02: Main products imported from China to Brazil in 2022**

<b>PRODUCTS</b>	<b>PROPORTIONS (%)</b>
Thermionic valves and tubes, cold cathode or photo-cathode; diodes, transistors	11%
Telecommunications equipment, parts, and accessories	6,5%
Organo-inorganic compounds, heterocyclic compounds, nucleic acids, and their salts, and sulfonamides	5,9%
Machines and electrical appliances	3,0%
Others	73,6%

Source: Own Elaboration (data from COMEX STAT, 2023).

In contrast, following Table 02, Chinese imports consist of highly manufactured products, characterized by technological complexity and, consequently, high added value. Moreover, the combination of the four main imported products accounts for only 26.4% of the total imports, demonstrating the high variability of the Chinese market for exports. As a result, the dynamics of trade between the two countries are asymmetric, despite the values shown by the trade balance.

In this context, as mentioned in the first section, Goiás is one of the Brazilian states with its economy centered in the agricultural and livestock sectors. Therefore, its exports to China increased from \$7.704.641 (Free On Board value - FOB value) in 2000 to \$5.911.648.355 (FOB value) in 2022, ranking 6th among the states that have the biggest volume of exportations to China

The main exporting cities in the state are Rio Verde and Jataí, together accounting for about 65% of the total FOB value of exports. According to descriptions from the Harmonized System, the products exported by these cities include soybeans, even in crushed form. Municipalities such as Mozarlândia and Palmeiras de Goiás are the major exporters of beef (Comex Stat, 2023). From 2000 until 2019, 57 cities in Goiás had China as their destination for exports (Silva, 2022).

Comparatively, Goiás maintains asymmetrical relations between the imported and exported products, with a demand for consumption of automotive vehicles and their parts, as well as fertilizers and other products from the manufacturing industry, coming from China. Nevertheless, the trade balance between the state and China favors Goiás, with a surplus of \$4,781,934,873 in FOB value (Comex Stat, 2023).

Furthermore, there is a positive correlation between the growth of Goiás' exports and the state's GDP at the municipal level (Lucena *et al.*, 2021). However, agribusiness does not necessarily promote the development of the municipalities, as the generated wealth is often concentrated outside them (Silva, 2022). This demonstrates, once again, that despite positive quantitative data, qualitative analyses reveal shortcomings and the need for implementation in the sector to enhance the economy's dynamism and promote development for the local population.

Nevertheless, the current government of Goiás has plans to add more complexity to the state's agricultural and livestock production. There is an intention to promote further processing of grain and beef production for export purposes (Lavoratti, 2020). This could bring more dynamism to the state economy, making it more diverse and promoting technological development in the region. The activities and possibilities developed for this purpose will be further discussed in the next section.

### **III. Goiás' hurdles and the quest for innovation and industrialization to diversify the export portfolio to China: new possibilities with the Belt and Road Initiative**

The history of industrialization and modernization of the state of Goiás dates back to the Brazilian March to the West between the 1930s and 1940s, which aimed to establish capitalist production and urbanization patterns in regions beyond the Southeast and the Brazilian coast. Subsequently, with the construction of Brasília, the new political capital of Brazil, located in the geographic center of the nation and surrounded by the state of Goiás, the region further



developed, mainly due to the construction of transportation infrastructure in the area. However, it was in the 1970s, with a plan for technological agricultural development implemented by the military government as a result of the Green Revolution, that agribusiness became popular in the state (Pizarro and Sobrinho, 2019).

Agriculture and livestock are essential to understanding Goiás' industrialization because, with the effectiveness of production plans, a productive surplus was created for export, initiating a history of foreign trade and the need for agro-industrial production chains. Thus, based on its privileged geographical location, the development of more efficient transportation routes, the formation of an active entrepreneurial class, a dynamic consumer market, and above-national-average economic growth, it can be asserted that Goiás is an industrialized state (Fonseca, 2014), especially with the expansion resulting from increased exports from agribusiness, which fueled the sector's investment cycle to ensure continuous growth between 1970 and 2010 (De Castro and Castro, 2019). Therefore, the history of Goiás' industrialization process demonstrates a strong correlation with foreign trade, which has been further enhanced by the increase in export value provided by trade with China since the 2000s.

While Goiás presents these attractions and is on a path toward more industrialization, the state's industrial development requires the elimination of obstacles, especially those related to regional concentration within Brazil (Diniz et al., 2021). Despite progress and an already strategic location, logistics, and transportation costs are still referred to as the "Brazil cost", linked to factors external to the firms, which generates opportunity costs (Ferreira et al., 2019). In the case of meat exports, delays and changes in ship schedules occur, and, in some cases, strikes can result in sales postponements and losses (Welgacz et al., 2009).

Among other adjustments, the need for a new regionalization in the country is also emphasized, addressing the aim for regional planning and policies with different operational scales. These should align with specific territorial characteristics of the region, infrastructure support, natural features, production structures, and urban coordination. In the case of Goiás, regionalization could even extend to a municipal level. Furthermore, priority is given to financing systems with explicit priorities and the guidance of science and technology policies that connect the productive and business systems in both public and private domains (Ferreira et al., 2019).

In this paradigm, the effective integration of Goiás into the international market demands investments in the construction and modernization of transportation modes, especially railways. Significant steps have already been taken, with the completion of the North-South railway and the privatization of the Rede Ferroviária Federal Sociedade Anônima (RFFSA), a railway that came near Luiziana, a city in Goiás. The railway Centro-Atlântica also stands out, connecting the southeastern part of the state with major ports and consumption centers (De Souza Pires, 2019). Therefore, the influx of direct investments can be a fruitful path for deepening beneficial relations between China and Goiás, amplifying strategic points through the adjustment of infrastructure deficits.

In this regard, the Belt and Road Initiative presents a significant opportunity for Goiás to address its infrastructure challenges. The New Silk Road, which marks its tenth anniversary in 2023, primarily focuses on infrastructure investments that facilitate intercontinental connectivity. As of September 2023, 148 countries are formally part of the Belt and Road, including 21 from Latin America and the Caribbean (Milhorce, 2023). The Chinese

government asserts that the Belt and Road Initiative aims to promote connectivity among the continents, fostering partnerships, networks, and sustainable development. The initiative seeks to align development strategies, stimulate regional markets, drive investments, generate employment opportunities, and promote cultural and human exchanges, with the ultimate goal of fostering harmony, peace, and prosperity among participating nations (The State Council, 2015).

Recently, the political and trade authorities of Goiás have been taking steps to further expand commercial relations between China and the state. In June 2023, the Vice-Governor of Goiás, Daniel Vilela, led a commercial mission representing a delegation of thirty representatives from the productive sector (Faria, 2023). The mission aimed to demonstrate to Chinese entrepreneurs that the state, as stated by Daniel Vilela in his remarks on the paradiplomatic trip, is “a fertile ground for investments”, beyond the agribusiness sector, particularly in industry, technology, and innovation (State Secretariat of the Civil House, 2023). Therefore, it is evident that for political authorities, the driving force behind the deepening of these commercial relations and promoting more innovation and industrialization within Goiás is Chinese foreign investment, enabling the state to better serve Chinese consumption needs while simultaneously developing the domestic productive sector.

The June mission was followed by a productive visit from the Chinese diplomatic delegation to the state in August 2023. The delegation was led by Chinese Ambassador Zhu Qingqiao, who met with various political and economic representatives, as well as Goiás’ entrepreneurs, to strengthen goals related to paradiplomatic partnership. Initially, the delegation was received by Goiás’ State Legislative Assembly, where the ambassador expressed willingness to become more involved in the energy and agribusiness sectors and to attract more investments to the state (Goiás’ State Assembly News Agency, 2023). In addition to the initial reception at the Legislative Assembly, the delegation attended meetings at the Federation of Industries of the State of Goiás (FIEG), visited a slaughterhouse in the municipality of Inhumas to observe the production, as animal protein is the fourth most imported product by the Chinese from Goiás, as shown in Table 01, and conducted a seminar for the Federation of Commerce of Goods, Services, and Tourism of the State of Goiás (FECOMÉRCIO) (Seagro, 2023).

In general, the current period is favorable for greater participation by the state of Goiás in the international scenario. The global meat market, especially in pork and chicken, for instance, presents itself as an opportunity, as China has shown slower growth than the world average and, consequently, an increase in imports. However, it is worth noting that countries with better geographical locations, suitable logistical infrastructure, and, above all, signed sanitary protocols and more authorized meatpacking plants for export to China, such as the United States and Canada, stand out. Additionally, American production enjoys tax benefits. Despite this, the trade war and the beginning of attempts to promote more autonomy between the United States and China economies create new gaps that can be filled by Brazil and, more specifically, Goiás (Ferreira and Vieira Filho, 2019).

In this sense, the Chinese ambassador brought favorable prospects to light by discussing China's plans to diversify its population's food base. Just this year, agreements were signed regarding the import of corn by China, a product not previously part of the trade agenda in relations with Goiás. The discourse surrounding the potential consumer base of the country's domestic market was predominant, as well as the emphasis on ongoing negotiations concerning

the transfer of Chinese companies to Itumbiara, a promising city in the state. According to Zhu Qingqiao, the plan is to increase Goiás' participation in exports to China, surpassing the current level of 3%. Thus, the focus of new economic programs in China will be the domestic market, promoting the increase of Chinese importation. In this sense, Brazil can take an important role in this project.

Expanding that argument, the presence of Zhu Qingqiao demonstrates the Chinese government's willingness to familiarize itself with the institutions involved in the production of goods, services, and trade in Goiás, establishing deeper relations within the state. To continue the series of paradiplomatic meetings, there are plans for the Governor of Goiás, Ronaldo Caiado, to visit China in the future, with the next trip aimed at consolidating investment partnerships with three Chinese companies: Chint Power, a provider of energy solutions, YTO Group Corporation, a tractor manufacturer, and Weichai Group, an electric motor manufacturer (Entrepreneurship in Goiás, 2023).

In that regard, this reflects the policy of the Brazilian Federal Government, which has been conducting inter-ministerial meetings since February 2023. In this context, Brazil should make significant efforts to build on the already positive data regarding Chinese investments in the country, considering that in 2021, Brazil received the highest amount of investment from China worldwide (Cariello, 2022), and 2022 saw a record number of Chinese projects in Brazil, particularly in the electricity sector (Cariello, 2023).

In April 2023, during President Luiz Inácio Lula da Silva's state visit to China, the topic of Brazil formally joining the Belt and Road Initiative was deliberated. However, due to internal divisions within the Brazilian government, the country did not become a part of the B&R. One position inside of the Brazilian Foreign Ministry is that Brazil may not need to join the project as it already receives a significant portion of Chinese international investments. Moreover, the Brazilian government has expressed concerns about the socio-environmental impacts associated with the Belt and Road initiatives (Milhorance, 2023; Ninio, 2023).

Finally, the Brazilian, and more specifically, Goiás' motivation in negotiating Chinese investments into Brazil is evident, indicating significant potential for development and innovation. This aligns with the current trend, with Goiás ranking as the fourth Brazilian state in terms of Chinese investment, trailing only behind São Paulo, Minas Gerais, and Paraná, which are major economic hubs in the Southeast and South region (Cariello, 2023). Furthermore, a projection by the Brazil-China Business Council indicates that by 2030, Goiás could increase the value of its exports to China by over 50%. In terms of diversification, Goiás has identified 22 opportunities for expansion in the Chinese market, with six promising products (from the Harmonized System) to be included in foreign trade (Panzini, 2023). Consequently, the increase in investment volume and the value of exports will be the pillars of the new cycles of interactions between Goiás and China, establishing regional growth, within national growth.

## **CONCLUSIONS**

China holds strategic importance for Goiás' economy. Agriculture and livestock play a crucial role in understanding Goiás' industrialization and its agribusiness sector. The implementation of production plans led to a surplus of agricultural products for export, kickstarting a history of foreign trade and the need for agro-industrial production chains. The state's industrialization process is intricately linked with foreign trade, and this relationship has been further enhanced

by increased export value in trade with China since the 2000s. However, despite these advantages, Goiás faces obstacles, often referred to as the "Brazil cost." Logistics and transportation costs, influenced by factors external to businesses, result in opportunity costs. Delays, changes in shipping schedules, and labor strikes can disrupt exports, particularly in sectors like meat production.

Addressing these challenges necessitates a new policies approach including massive investments in infrastructure, especially railways, science and technology. In this way the Belt and Road Initiative presents a significant opportunity for Goiás to address its infrastructure deficits. While the country did not formally join the Belt and Road Initiative during President Lula da Silva's state visit to China in April 2023, discussions about cooperation and investment continue. Brazil recognizes the potential benefits of partnering with China, particularly in areas like infrastructure and energy.

Concurrently, political and trade authorities in Goiás have been actively working to strengthen commercial relations with China. High-level delegations have visited both countries to explore opportunities for cooperation, investment, and economic growth. China's growing demand for food products, such as meat and corn, presents an opportunity for Goiás to increase its exports. The presence of Chinese companies in the state and the willingness to deepen economic ties bode well for future collaborations.

Lastly, Goiás is on a trajectory of increased industrialization and economic growth, driven by its strategic location, agricultural exports, and the growing economic ties with China. With investments in infrastructure, continued collaboration, and a focus on diversification, Goiás aims to further strengthen its position as an economic powerhouse within Brazil and in the international economy.

## **References**

- Agrolink Portal, "Agrolink: Possibilities for expanding the Goiás-China partnership", [https://www.agrolink.com.br/noticias/possibilidades-de-ampliacao-da-parceria-goias-china\\_482567.html](https://www.agrolink.com.br/noticias/possibilidades-de-ampliacao-da-parceria-goias-china_482567.html) (visited 4 September 2023).
- Cariello, Tulio. Chinese Investments in Brazil 2021: A Year of Recovery. Available at: <https://www.cebc.org.br/2022/08/31/estudo-inedito-investimentos-chineses-no-brasil-2021/>. Accessed on 4 September 2023.
- Cariello, Tulio. Chinese Investments in Brazil 2022: Technology and Energy Transition. Available at: <https://www.cebc.org.br/2023/08/29/numero-de-projetos-chineses-no-brasil-bateu-recorde-em-2022/>. Accessed on 4 September 2023.
- Ceagre, "Início", <https://www.ceagre.com.br/> (visited July 19, 2023).
- Creago, "Goiás cresce mais de 50% em exportações puxadas pelo agro", <https://www.creago.org.br/noticia/view/1796/goias-cresce-mais-de-50-em-exportacoes-puxadas-pelo-agro> (visited July 19, 2023).
- De Godoy, H. A. Government of Goiás invests R\$ 15 million in the Center for Excellence in Exponential Agriculture. Available at: <https://www.goias.gov.br/servico/30-ciencia-e-tecnologia/122616-governo-de-goias-investe-r-15-milhoes-em-centro-de-excelencia-de-agricultura-exponencial.html>. Accessed on: July 19, 2023.
- De Castro, Mário César Gomes; Bardella Castro, Joana. Industrialization incentives in Goiás: industrial policies and their impacts. *Revista de Economia da UEG*, v. 16, n. 1, 2020.

- De Lucena, Andréa Freire; Campos, Flávia Rezende; Santos, Jane Figueredo. Exports and regional economic development in Goiás. *Revista Brasileira de Desenvolvimento Regional*, v. 9, n. 2, p. 189, 2021.
- De Souza Pires, Murilo José; Campos, Flávia Rezende. Contribuições das ferrovias Norte-Sul e Centro-Atlântica na expansão do vetor externo da economia do Centro-Oeste. Instituto de Pesquisa Econômica Aplicada, 2019.
- Deus, Larissa Neves; Terra, Fábio Henrique Bittes; De Conti, Bruno Martarello. The BRICS Bank and its potential influence on asymmetries in the international monetary and financial system. *Geosul*, v. 34, n. 70, p. 13–33, 2019.
- Diniz, Clélio Campolina; Mendes, Philipe Scherrer. Tendências regionais da indústria brasileira no século XXI. Texto para discussão, 2021.
- Entrepreneurship in Goiás. Caiado announces three Chinese companies for Goiás. Available at: <https://empreenderemgoias.com.br/2023/08/16/caiado-anuncia-tres-empresas-chinas-para-goias/>. Accessed on 4 September 2023.
- Ferreira, Marcelo Dias Paes; Vieira Filho, José Eustáquio Ribeiro. Inserção no mercado internacional e a produção de carnes no Brasil. 2019.
- Fonseca, Reinaldo. The industrialization of Goiás: a success story. *In: Cavalcanti, Isabel Machado et al. (Org.). A Territorial Perspective on Development: Central-West*. Rio de Janeiro: National Bank for Economic and Social Development, 2014. p. 296 - 346.
- Escher, Fabiano; Wilkinson, John. The political economy of the Soy-Meat Complex in Brazil-China. *Revista de Economia e Sociologia Rural*, v. 57, n. 4, p. 656–678, 2019.
- Faria, Getúlio: The Goiás delegation visits China this June to strengthen and expand commercial partnerships. Available at: <https://stgnews.com.br/missao-goiana-visita-a-china-neste-mes-junho-para-fortalecer-e-ampliar-parcerias-comerciais/>. Accessed on 4 September 2023.
- Milhorance, Flávia. “Visita de Lula à China: quatro resultados para o meio ambiente”; *Diálogo Chino*, April 21 2023. <https://dialogochino.net/pt-br/mudanca-climatica-e-energia-pt-br/367582-lula-a-china-quatro-resultados-para-o-meio-ambiente/> (visited September 5 2023).
- Garret, G., Jr. 2022 Ranking: Rio Verde is the best city for agribusiness. Available at: <https://exame.com/economia/ranking-2022-rio-verde-e-a-melhor-cidade-para-fazer-negocios-no-agro/>. Accessed on: July 19, 2023.
- Government, “Goiás activates 5G network and opens up new possibilities for IoT in agriculture in Rio Verde”, <https://www.governo.go.gov.br/governdor/521-go%C3%A1s-ativa-rede-5g-e-abre-novas-possibilidades-de-iot-para-a-agricultura-em-rio-verde> (visited July 19, 2023).
- Goiás, a more innovative state every day, <https://agenciakoradenoticias.go.gov.br/artigos/goias-um-estado-mais-inovador-a-cada-dia>, (visited July 19, 2023).
- Instituto Mauro Borges, “About Goiás”, [https://www.imb.go.gov.br/index.php?option=com\\_content&view=article&id=79&Itemid=458](https://www.imb.go.gov.br/index.php?option=com_content&view=article&id=79&Itemid=458) (visited July 19, 2023)
- Lavoratti, L. The force driving the Brazilian agribusiness. *China Hoje*, São Paulo, n. 31, p. 34 - 48. Jun./Jul. 2020.
- Legislative Assembly of Goiás. Bruno Peixoto receives the Chinese delegation at Alego and highlights the expansion of the trade partnership with Goiás | Alego Portal. Available at:

- <https://portal.al.go.leg.br/noticias/135784/bruno-peixoto-recebe-delegacao-chinesa-na-alego-e-destaca-ampliacao-da-parceria-comercial-com-goias>. Accessed on 4 September 2023.
- Leite, A; Netto, O. Sino-Brazilian trade relations: qualitative asymmetries and federative imbalances. In: Lima, M. (org.). *Sobre a China*. Recife: Editora UFPE, 2018.
- Vilela, Rafael. Lula inaugurates the North-South Railway terminal in Goiás. Available at: <https://agenciabrasil.ebc.com.br/politica/noticia/2023-06/lula-inaugura-terminal-da-ferrovia-norte-sul-em-goias>. Accessed on: July 19, 2023.
- Ninio, Marcelo “ Brasil não deve assinar adesão à ‘Nova Rota da Seda’ na visita de Lula à China, diz Haddad”. *O Globo*, April 13 2023.
- Ministry of Agriculture and Livestock. MAPA presents proposals to expand the trade relationship with China. Ministry of Agriculture and Livestock. Available at: <https://www.gov.br/agricultura/pt-br/assuntos/noticias/mapa-apresenta-propostas-para-expandir-relacao-comercial-com-a-china>. Accessed on 4 September, 2023.
- Ministry of Industry, Commerce, and Services, "Exportation and Importation by Cities - Exported Values by Municipalities of Goiás". <http://comexstat.mdic.gov.br/pt/municipio/87927>. Accessed on: July 19, 2023.
- Ministry of Industry, Commerce, and Services, "General Exportation and Importation - Evolution of Exportation to China". <http://comexstat.mdic.gov.br/pt/geral/87928>. Accessed on: July 19, 2023.
- Ministry of Industry, Commerce, and Services, "General Exportation and Importation - Evolution of Importation from China". <http://comexstat.mdic.gov.br/pt/geral/87930>. Accessed on: July 19, 2023.
- Ministry of Industry, Commerce, and Services, "Exportation and Importation by Cities - Imported Goods from China to Goiás". <http://comexstat.mdic.gov.br/pt/municipio/87933>. Accessed on: July 19, 2023.
- Ministry of Industry, Commerce, and Services, "Comexvis". <http://comexstat.mdic.gov.br/pt/comex-vis>. Accessed on: July 19, 2023.
- Panzini, Fabrizio. Brazilian States' Exports to China: Current Scenario and Prospects for Diversification. [n.p.], 2023. Available at: <https://www.cebc.org.br/2023/02/07/china-e-maior-destino-de-exportacoes-de-19-dos-27-entes-federativos-do-brasil/>. Accessed on 4 September 2023.
- Pizarro, Roberto Eduardo Castillo; Sobrinho, Fernando Luiz Araújo. The construction of agribusiness in the southwestern planning region of Goiás. *Neutral Fields - Latin American Journal of International Relations*, v. 1, n. 2, p. 91–106, 2021.
- Prefeitura de Rio Verde, “Agriculture and Livestock”, <https://www.rioverde.go.gov.br/agricultura-e-pecuaria/> (visited July 19, 2023)
- Our Location. Available at: <https://portal.portoseco.com.br/nossa-localizacao/>. Accessed on: July 19, 2023.
- Sangalli, Larissa; Lamoso, Lisandra Pereira. The Role of China in Foreign Trade in the Central-West Region.
- State Secretariat for Science, Technology, and Innovation - Technological Parks. Available at: <https://www.inovacao.go.gov.br/ciencia-tecnologia-e-inovacao/parques-tecnologicos.html>. Accessed on: July 19, 2023.
- Senar. Available at: <https://sistemafaeg.com.br/senar/institucional>. Accessed on: July 19, 2023.

Silva, Alex Dos Santos. Territory and Cultural Expressions in the Cerrado, 2022.

State Secretary of Civil House. Daniel Vilela leads a mission to China with a focus on expanding commercial relations. DARTCreations. Available at: <http://www.casacivil.go.gov.br/noticias/9651-daniel-vilela-lidera-miss%C3%A3o-%C3%A0-china-com-foco-em-ampliar-rela%C3%A7%C3%B5es-comerciais.html>. Accessed on 4 September 2023.

Cariello, Tullio. “ Investimentos chineses no Brasil: Histórico, tendências e desafios globais ((2007-2020))”. Conselho Empresarial Brasil-China , 2021 [https://www.institutoconfucio.com.br/wp-content/uploads/2021/08/INVESTIMENTOS\\_CHINA\\_BRASIL\\_2007-2020\\_.pdf](https://www.institutoconfucio.com.br/wp-content/uploads/2021/08/INVESTIMENTOS_CHINA_BRASIL_2007-2020_.pdf) (visited May 3 2022).

Welgacz, H. T. et al. Custos ocultos nas operações brasileiras de carne. Custos e Agronegócio. Online, v. 5, n. 1, p. 117-134, 2009.