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## MOST OF THE PROFITS FROM SOY GO ABROAD

Although the development of soy production in Brazil receives national capital, those who absorb the largest portion of the income generated by this chain are large multinational companies, mainly American, European and Chinese. The greater participation of international capital in the control of the Brazilian soy chain and associated products happens due to internationalization and, above all, oligopolization of agribusiness.

With the intensification of soy production to meet the growing global demand, foreign corporations have gained space in different links of the pre and post-production market, such as seeds, agrochemicals, agricultural machinery, processing, transportation and export.

These multinationals increased control of these production chain segments through aggressive processes of merger and/or acquisition of national companies.

This greater control has the consequence of reducing the Brazilian participation in the revenues generated and in the governance model of the soy production chain, which leads to a “repatriation of profits”. The income generated by adding value to soys (raw material) is concentrated in importing countries, especially China. Industrialization is often driven by the traders themselves in the destination country. Brazil remains a peripheral supplier of raw materials<sup>1</sup> only, with low added value, which limits the growth of the Brazilian industry and substantially reduces the benefits to the Brazilian society as a whole,

considering the limited collection of taxes from the production and export of soys.

Tax privileges and subsidies applied to the agribusiness sector limit the benefit that commodity production brings to the country.

The distribution of these subsidies, in part public, carried out by the Safra Plan among programs for the productive sector, shows an inequality due to the concentration of resources in a small number of actors, mainly represented by large agribusiness producers, exporters of agricultural commodities such as soys. The R\$ 244 billion to be directed to the agribusiness sector (category “Other producers and Cooperatives”) in 2022/2023 represent 71% of the total scheduled values. This sector usually represents less than 15% of contracts. That contrasts with the allocation of the remaining subsidies (28%) to the National Program for Strengthening Family Farming (PRONAF) and the National Program to Support



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Medium Rural Producers (PRONAMP), which benefit the numerous small and medium-sized producers who generally represent more than 85% of the number of contracts. In sum, those who produce food for Brazilians benefit little from subsidies in relation to those who export commodities such as soys.

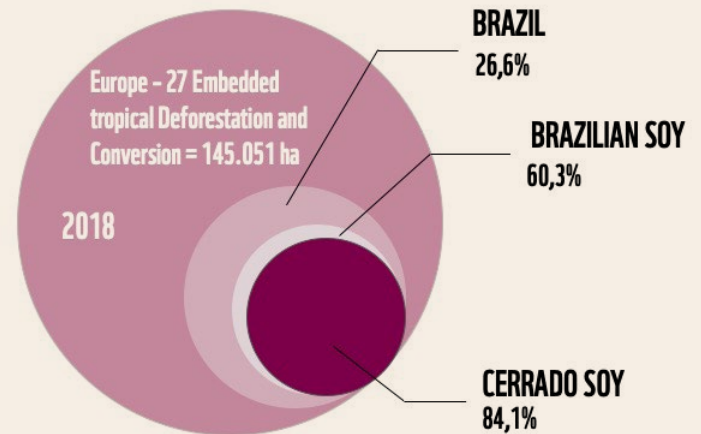
In addition to the sector receiving preferential subsidies, tax incentives such as in the case of the Kandir law provide for the exemption from taxation applied to agricultural exports, which limits the collection of the sector whose exports represented almost half of the national trade balance in 2022, according to data from the National Confederation of Agriculture (CNA). Another example of privilege to the sector is the tax exemption agreed to the industries of the pesticide sector, valued at almost R\$10 billion in 2017 alone<sup>2</sup>.

### IMPACTS OF DEFORESTATION

The production of Brazilian soys destined for consumer markets in the Northern Hemisphere is accompanied by social and environmental impacts, which result in the worsening of the effects of the climate crisis in the country. While much of the profit goes abroad, the damage to the environment remains in Brazil. The EU imports of agricultural commodities, for example, were linked to the deforestation of more than 145,000 hectares of tropical ecosystems in 2018<sup>3</sup>.

The figure below shows that deforestation in tropical ecosystems caused by the European consumer market is mainly associated with Brazilian soys, whose expansion is concentrated in the Cerrado. Between 1985 and 2021, soy expansion in natural ecosystems of this biome reached 8.1 million hectares an area larger than the surface of Belgium and the Netherlands combined. In 2022, the deforestation recorded in the Cerrado was 1.07 million hectares<sup>4</sup>, 69% higher than in 2019. Considering that the Cerrado has already lost approximately half of its original vegetation cover, the current trends in deforestation are alarming.

**Figure1: Greater contributions to tropical ecosystem conversion associated with the European Union consumer market in 2018. Based on data from Pendrill et al. 2022<sup>5</sup> and from Trase<sup>6</sup>.**



Source: WWF-Brazil<sup>7</sup>.

### SOY MORATORIUM

The Soy Moratorium is a voluntary agreement between industries and grain exporters to refuse purchases of soys from deforested areas after July 22, 2008<sup>8</sup>. Recent estimates<sup>9</sup> indicate that the Amazon Soy Moratorium averted between 900,000 and 2.7 million hectares of deforestation in the biome during the first decade of its implementation, effectively dissociating soy cultivation from deforestation<sup>10</sup>. After the beginning of the Moratorium, the expansion of soys in the biome started to occur mainly over areas deforested before 2008.

Despite this success, 59,972 hectares of forest converted to soy plantation were identified in the period between 2009 and 2016, in 54 municipalities, which were not in compliance with the Soy Moratorium<sup>11</sup>. Another study<sup>12</sup> revealed that between 2006 and 2016, there was an increasing trend of deforestation for soy planting in some regions of the Brazilian Amazon, especially in eastern Pará. During this period, Brazilian soy expanded mainly over the Cerrado, where there is no moratorium<sup>13</sup> and where conservation units occupy less than 10% of the area, with only 3% with full protection<sup>14</sup>.





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Soybean planting is the only link in the production chain in which national capital predominates. Currently, less than 7% of the area for soy planting in the country belongs to foreigners or international groups due to political and environmental barriers in areas of grain production<sup>15</sup>. In the 2019/2020 agricultural year, 2% of soy production had US capital, 1% Chinese and 3.6% from other countries<sup>16</sup>.

The predominance of national capital in soy planting, however, is at risk for at least two factors. One of them is the processing of Bill 2.963/2019 (approved in the Senate in December 2020 and under consideration in the Chamber of Deputies on the date of publication of this technical note), which can facilitate the purchase or lease of land by foreigners in Brazil. The other is the economic exploitation of rural properties by international groups through the shareholding control of Brazilian companies.

**In this arrangement, international investors seeking to diversify their portfolio join Brazilian agribusiness companies to acquire shares in Brazilian legal entities. These entities, in turn, invest in other local financial vehicles, which will buy and sell land in Brazil. This ends up creating a distance between the international investor and the local company, which owns the land possibly through illegal means such as land grabbing. Other complementary mechanisms, such as the use of intercompany financing through the issuing of debentures, in which the parent company lends to its subsidiary, give more opacity to the financial assembly. In other words, international investors unite with large agribusiness corporations in Brazil that have the capacity to prospect locally to invest in speculation operations on agricultural land<sup>17</sup>.**

All this can result in the weakening of the state's position in agribusiness, increased speculation in the land market and the risk of deforestation.

### INVESTMENT BRINGS SOYS TO THE WHOLE COUNTRY

From the second half of the 20th century, public institutions, including universities, the Agronomic Institute of Campinas and Embrapa (created in 1973), together with some private companies, invested in the development of cultivars adapted to the soil and climate conditions of the different regions of the agricultural frontier of the country..

Until 1981, soy plantations were concentrated mainly in the South region, with a small presence in the Cerrado of Mato Grosso do Sul, Triângulo Mineiro and southern Goiás<sup>18</sup>. With the soy varieties available before the 1970s and 1980s, flowering occurred very early at latitudes below 15 degrees, where the maximum photoperiod is less than 12.9 hours and the short vegetative period led to low plants and reduced yields<sup>19</sup>.

Research efforts have resulted in the creation of soy varieties and systems adapted to the conditions of central Brazil and with significant gains in productivity<sup>20</sup> since the early 1980s. The possibility of planting soys in that vast region of the Cerrado and the Amazon created a continuous demand for varieties more adapted to shorter photoperiods, until, finally, soy reached Santarém in 2003.<sup>22 23</sup>, where the maximum photoperiod is 12 hours. Currently, most of the soy production in Brazil occurs in the Cerrado and in the South regions, of greater aptitude for this crop<sup>24</sup>, but production in the Amazon has grown considerably, from 1.64 to 5.41 million hectares between 2008 and 2020<sup>25</sup>.

Because it contains high levels of vegetable oils and proteins, soy is mainly used for the production of animal feed and vegetable oil. In addition, it is also used in the food industry, such as in the production of juice and other soy-based beverages, protein alternative for lactose intolerant consumers, and a small part in the production of biodiesel.

### OTHER LINKS IN THE CHAIN

The scenario changes completely when the analysis turns to the other segments of the production chain. Both



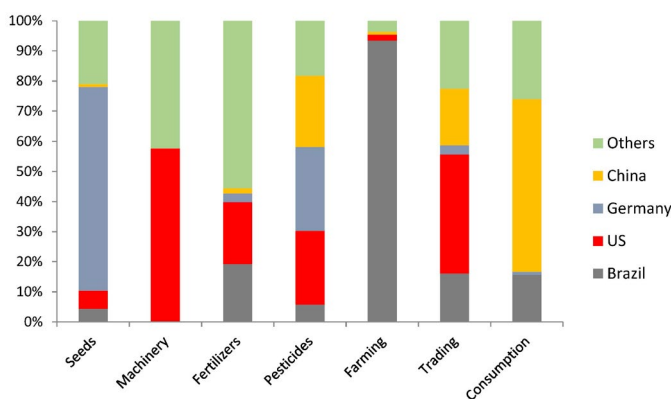
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in the different types of inputs and in the post-production stages, the oligopoly of business groups predominates in Brazil. The Brazilian soy production chain, as well as the global one, is characterized by the concentration of economic power and control of large market shares by mega corporations. And the number of business groups has declined rapidly, due to the mergers and acquisitions process.

In the seed sector, during the 1990s and until 2007, the largest share of new cultivars registered with the Ministry of Agriculture, Livestock and Supply (Mapa) were developed by public research institutions, such as Embrapa<sup>26</sup>. Since the 2010s, however, the international private sector has come to control the registration of cultivars. Currently, Bayer controls 90% of the market share associated with the development of seed technology in Brazil. The share of national companies in seed production fell from 16.5% to 8.7% of the market between 2015 and 2020<sup>27</sup>. The graph below, from the study by Medina and Thomé (2021)<sup>28</sup>, shows the market shares held by Brazilian and foreign companies in the Brazilian soy chain in 2020.

**Figure 2: Market share held by Brazilian and foreign multinational companies by key production phase of the soy supply chain established in Brazil in 2020 (in %).**



Source: translated from Medina and Thomé (2021).

The control of the seed sector by transnational private capital puts Brazil in a position of technological dependence, given its relationship with other links (especially that of agricultural pesticides) and its role in productivity gain – almost all soy produced in Brazil is transgenic<sup>29</sup>. Even if Brazilian companies produce their own varieties from their germplasm banks, a significant

part of the gains ends up not being appropriated by the national capital due to the payment of royalties to the companies holding the patents<sup>30</sup>.

The agricultural machinery and agrochemical sectors are even more controlled by foreign companies and the share of national capital has also been decreasing over time. The sectoral added value absorbed by Brazilian business groups in the 2019/2020 agricultural year did not reach 1% in the case of machines and represented 5.8% in the pesticide market. John Deere (United States) and CNH New Holland (Holland) accounted for approximately 60% of tractor sales in Brazil in 2020, while Brazilian Agrale obtained only 0.4%. The pesticide market is slightly less concentrated, but controlled by Syngenta/ChemChina from China and Bayer and BASF from Germany, which together accounted for 41.5% of the sales, while Nortox and Ouro Fino from Brazil accounted for 4.8%<sup>31</sup>.

The share of national capital is a little more significant in the fertilizer segment, with a 19% share in 2020, but it has been decreasing. When separating the sector by production of raw material and manufacture of fertilizer (final product sold to the farmer), the market shares of Brazilian companies in 2020 were 9% and 30%, respectively. The national group Fertipar stands out, with 15% of the market for processed fertilizers that year. The leaders in the sector are the Norwegian Yara (25%) and the American Mosaic (20%).

**The recent fertilizer crisis showed how the dependence of domestic agricultural production on foreign inputs is harmful to the sector. Currently, Brazil imports between 80% and 85% of the fertilizers it uses<sup>32</sup>. The race to build stocks, in this context of scarcity, generated inflation of inputs and cascaded throughout the production chains, reaching the price of the final food. In addition, the economic risk to the soy producer, among other crops, increased even more in a context of reduced productivity associated with droughts.**





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It is difficult to accurately establish the Brazilian participation in the post-production of soys (refining, financing, packaging and consumption of direct derived products), as these data are not disclosed by the companies. However, it can be said that national capital has been losing space in the market. In 2015, Brazilian companies held almost 31% of the market; in 2020, the national share was 16%, with emphasis on Amaggi, Coamo and Cutrale, with 6.6%, 2.3% and 1.7%, respectively. As well as at a global level, the so-called ABCD group, formed by US companies Archer Daniels Midland (ADM), Bunge and Cargill, and the Dutch Louis Dreyfus Company, takes the lead, having been responsible for 36% of the value generated in these segments in 2020<sup>33</sup>.

There are at least two barriers for Brazilian groups to increase their participation in the trade sector. One of them refers to the large investments that foreign corporations make in ships, ports, railways, refineries, silos and industrial plants. The other is the strong competition between the largest companies in the segment. Since 2015, the ABCD group has been losing share in the domestic and international market due to the growth of Asian companies<sup>34</sup>.

## CONCLUSION

The soy production chain in Brazil generated, in the 2019/2020 agricultural year, a gross revenue of US\$ 86.9 billion, of which US\$ 31.6 billion were absorbed by Brazilian business groups<sup>35</sup>. A considerable part of this value comes from the primary production, a link in the chain that has the lowest profit margins and whose performance is increasingly dependent on global oligopolies.

In addition to losing with the repatriation of profits, Brazil loses by expanding the cultivated area of soys in natural ecosystems. The erosion of natural heritage is a problem that remains in Brazil because, despite the greenhouse gas emissions associated with deforestation, which contribute to global climate change, the additional cost of deforestation for the country is considerable, mainly due to the reduction of agricultural productivity.

See also the technical note [Deforestation increases the cost of climate change for agribusiness](#)<sup>36</sup>.



Mechanized harvesting of transgenic soybean, region known as MATOPIBA, Balsas – MA



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### NOTES

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