IIS | INTERNATIONAL INSTITUTE FOR SUSTAINABILITY

WORKSHOP | Agricultural commodities production and trade scenarios outcomes on land use change and biodiversity in Brazil

Main contributions

February | 2021

TRADE, DEVELOPMENT & THE ENVIRONMENT HUB

Index

1. Introduction

The TRADE Hub project is a collaborative work involving 50 partner organizations worldwide with the objective of making sustainable trade a global positive force, by focusing on the impact and possible solutions for the trade of specific commodities. The International Institute for Sustainability (IIS), as a partner in this effort, is analysing the land-use and biodiversity outcomes of agricultural commodity production in international trade scenarios.

As part of this research, IIS held a 2-Days Workshop on February 2nd and 4th, 2021, to scope the main entry points to improve the work, inviting national and international high-level speakers and stakeholders to share their knowledge and perspectives on the topic. The Workshop was a virtual event due to the COVID-19 pandemic safety rules and designed according to the Chatham House Rules to provide robust information and to promote open spaces to debate among the participants.

On the first day, the workshop focused on having a landscape analysis of International Agreements, stakeholders' initiatives and sectoral approaches. On the second day, tools, models and potential criteria for scenarios were debated with the presence of academic researchers already engaged in the project worldwide, considering the previous arguments from Day 1.

The present document aims to summarise the discussions, presentations, and plenaries of this workshop, highlighting the main findings and debates occurring during the event, that will be later on incorporated into project scope definition.

In this way, this report should not be considered as results of the research or as positions of the institution. Later on, the results of this research linked to IIS will be available through policy briefs, journal articles and databases.

The 2 days of work followed the basic same structure:

Workshop on "Agricultural commodities production and trade scenarios outcomes on land use change and biodiversity in Brazil"

Day 1 - February 2nd, 2021 (Tuesday) - 9 am to 1 pm (GMT-3)

Hour (GMT-3)	Session	Topic	Time (min)
9:00 - 9:30	Introduction	Opening remarks	5
		House rules and agenda	5
		Atendees introduction	20
9:30 - 9:45	Overview	Trade Hub Project	5
		IIS Research Line	10
9:45 - 11:05	International trade agreements, national policies and multistakeholder iniciatives	Introduction to speakers	5
		Internacional trade agreements	10
		Sectorial approaches and multistakeholder initiatives	10
		National public and private policies	10
		Breakout Rooms	30
		Plenary session	15
11:05 - 11:25		Coffee-break	20
11:25 - 12:45	EU-Mercosur Trade Agreement	Introduction to speakers	5
		EU-Mercosur agreement overview	10
		Safeguards negotiation and environmental aspects	10
		Production, consumption and deforestation	10
		Breakout Rooms	30
		Plenary session	15
12:45 - 13:00	Closure	Debriefing	10
		Closing	5

Figure 1 - Day 1 Workshop Program

Workshop on "Agricultural commodities production and trade scenarios outcomes on land use change and biodiversity in Brazil"

Day 2 - February 4th, 2021 (Thursday) - 9 am to 1 pm (GMT-3)

Hour (GMT-3)	Session	Topic	Time (min)
9:00 - 9:20	Introduction	Opening remarks	5
		House rules and agenda	5
		Atendees introduction	10
9:20 - 10:05	Debriefing and next steps	Recap of the workshop first day	15
		Commentary on trade and political agreements	15
		IIS research plan and expected outputs	15
10:05 - 11:00	Trade and political criteria to guide modeling	Introduction to first discussion	5
		Breakout Rooms	30
		Plenary session	20
11:00 - 11:20		Coffee-break	20
11:20 - 11:50	Research support models	Interactions with Globiom	15
		Interactions with Trase	15
11:50 - 12:45	Models, tools and variable to guide the scenarios	Introduction to second discussion	5
		Breakout Rooms	30
		Plenary session	20
12:45 - 13:00	Closure	Debriefing	10
		Closing	5

Figure 2 - Day 2 Workshop Program

2. First day of Workshop: 2nd February 2021

9 a.m. – 1 p.m. (GMT -3) | 35 attendees

The first day of workshop was focused on identifying International Trade Agreements, national public and private policies, sectoral approaches, and multi-stakeholder initiatives that could affect the agricultural commodity production, with focus on soy and beef in Amazon and Cerrado, in the next years, and consequently the land-use change and biodiversity in these regions.

In this context, a specific topic was approached: the European Union (EU) - Mercosur Agreement, its safeguards, negotiation and environmental aspects, as well as its possible impacts on production, consumption, and deforestation.

2.1 BLOCK 1: International trade agreements, national policies and multi-stakeholder initiatives

International Trade Agreements

Regarding the main contributions from this block, it was mentioned that the International Agreements offer several possibilities. International Public Law declares several types of Agreements and some are listed below:

- Multilateral Agreements, such as the World Trade Organization (WTO).
- Mega-regional Agreements, such as Regional Comprehensive Economic Partnership (RCEP).
- Regional Agreements, such as Mercosur Agreement and European Union Agreement.
- Bilateral Agreements, such as the China-Brazil Investment Agreement.

The current political scenario points out that Western Countries are not very enthusiastic about international trade agreements. On the one hand, we have the BREXIT - UK's exit from the European Union, the foreign politics developed during Trump's Presidency in the United States of America (USA), lack of movement in the Mercosur Agreement and internal difficulties in the WTO. On the other hand, the International

Trade Agreements in Asia has stood out. As an example, it is important to highlight that RCEP represents 1/3 of the world trade.

Additionally, it was pointed out that, in general, the International Trade Agreements have been little relevant in Brazil, particularly for Brazilian agriculture in the past 20 years. The Mega-regional Agreement Brazil tried to establish the Free Trade Area of the Americas, failed in early 2000 and EU-Mercosur Agreement has not been signed so far. During this period, the increase of export (Brazil moved from USD20 billion of export to USD100 billion) was due to these following main reasons: innovation, deregulation and removal of subsidies and protectionism for agriculture. Another reason relies on people's migration to new agriculture frontiers, especially to the Cerrado, making Brazil more competitive abroad.

An important point highlighted was that when the EU-Mercosur Agreement started being negotiated, in 2000, Europe represented 40% of Brazil's exports of agricultural products, and the USA represented 20%. Currently, Europe represents only 16% of Brazil's exports and China represents 36%. Asia represents almost 70% of exports from Brazil. Under this scenario, an Asian Trade Agreement must have a major direct impact in Brazil.

In terms of reputation and credibility, Europe still plays an important role in the international trade landscape. But it is becoming increasingly important to understand and consider Asia's position about land-use or biodiversity outcomes. Despite the relevance of the Asian market, Brazil does not have any Agreement on the horizon: there are some conversations with Japan, Singapore, and South Korea, but nothing like the ambition of the Trans-Pacific Partnership.

During the Workers' Party (PT) government in Brazil, there was an attempt to increase trade with Africa and Latin America, but for Agribusiness purposes these markets are of little significance. Africa may become a great market to Brazil, but now it represents only 3% of the exports. New facts might produce a change of perspectives in the current scenario. The USA, Europe and China are working for Climate Change Negotiations in several different areas, such as energy and land use. This can bring new pressure to Brazil,

such as WTO can start including new clauses on trade and environment. WTO might become more climate-sensitive due to Joe Biden's election as President of the USA.

The pandemic year of 2020 was the second-best year for Brazil's export in the history of agribusiness. Nevertheless, this fact associated with deforestation growth had a negative impact on the country's reputation, perception, and investments. In this scenario, the best way to fight these negative effects is not to reduce trade nor ban Brazil, but to monitor and to create traceability and certification systems.

Contrary to what was pointed out in some studies, during the discussions in the workshop it was pointed out that at least 90% of Brazilian soybean comes from legal soil, not deforestation-related, so Brazil should implement and expand best practices regarding the carbon-market, jurisdiction of initiative and metrics intensification.

Additionally, two potential future points were identified in the workshop:

- Broader multi-stakeholder initiatives – these could impact the major players in the private sector but will not affect all companies. Producers who are connected to big companies might create some sort of zero-carbon supply chain aiming at the European market. Meanwhile, other producers who are not connected to this type of specific market, but to the Brazilian market, will not follow environmental standards.
- Climate Change – the conversation should move from land use, biodiversity, and trade to Climate Change in general. Climate change is about energy, transportation, agriculture, and deforestation, amongst several other topics. Brazil has demonstrated good results and experiences in this field, which can benefit the debate and make it more interesting to the trade.

2.1.2 Sectoral Approaches and Multi-Stakeholder Initiatives

In this session, it was commented about the choice of commodities made for this research. According to the speakers, there is a real risk of analysing a small part of a much

bigger and complex situation, meaning the soybean culture in the Cerrado biome. This choice could bring some bias to the result of the research.

There has been good research work done on identifying illegal deforestation related to the Forest Code, but with some problems when attributes this problem only to soybean. It is estimated that almost 10% of properties in the Amazon and Cerrado do not follow the Forest Code, but there is an attempt to connect these areas to soybean and beef, even though there was no cause-effect established to prove this assumption.

Some notes suggested by the invitees are described below for possible incorporation in the research:

- It is necessary to separate legal to illegal properties, there is enough data to do it in a very safe manner.
- There is not enough evidence to confirm that soybean, beef, or any other specific commodity is responsible for illegal land use.
- The consequences of not following the law are not based on the produced commodity, it is a farmer's decision based on personal values and beliefs.
- The activities and decisions of the Government should be part of the research, mainly due to the lack of monitoring and inspection of them. Recommendations on how to create environmental awareness among farmers to help their decision-making process about illegal deforestation can be important.

2.1.3 National Public and Private Policies

It was mentioned that the world is changing faster than in the past, and the key-driver is climate change and the social-environmental crisis. The world must deal with 5 fundamental building blocks:

1. Climate change.
2. Biodiversity.
3. Pollution.
4. Natural resource use and management.

5. Social inequality.

All these blocks are interconnected and with the advent of COVID-19 Pandemic, they are even more evident. To address all blocks, it is important to understand that they are under the climate crisis umbrella. In the past, political leaders addressed these crises using Environmental Diplomacy, where the Ministry of Environment was the institution in charge to manage this topic. Currently, this procedure is not enough anymore: political leaders are bringing Environmental Diplomacy and Trade Diplomacy together under the umbrella of Climate Diplomacy.

So, the question is how agricultural, land use and forestry can be co-managed to bring the future into the present? Brazilian agriculture has an important history in the near past, but it is necessary to discuss it considering the prospects of 2050. To advance in this debate it is important to observe some notes:

- Tropical agricultural has an important space in the discussion, but no-tropical agricultural does not receive the same level of attention: these are completely distinct issues and when one tries to bring together biodiversity, landscape protection and conservation, it is pivotal to understand that in a country like Brazil, which has important food producer and mega biodiversity culture, it is necessary to have a strategy to bring these things together. It is fundamental to understand what tropical agriculture means, the challenges considering environmental protection, how deforestation can be managed -illegal or legal deforestation-, and nature conservation.
- Brazilian tropical agriculture specific features are still unknown around the world and it should be more transparent. It is necessary to explain the rules enacted in Brazilian Forest Code (1965), e.g., private farmers have the legal duty of preserving the private land on the behalf of biodiversity conservation without receiving any financial support from government or the difference between Amazon biome – or ecosystem – and Cerrado biome, how we can explain Soy Moratorium in the Amazon Region and a Soy Moratorium discussion in Cerrado since

these two moratoria are completely different worlds, with different actors and environmental features.

It was pointed out that the world does not know enough about Brazil's idiosyncrasies. Another relevant issue is about private and public lands, data demands, when you must bring private sector and share responsibilities, e. g. regarding climate change or zero deforestation strategy, and managing trade, private interests in national, regional, and local levels. It is not a public-only responsibility: it is a market and private-sector responsibility as well. There is a real need to become more transparent and understand better how value supply chains and trade will be positively impacted by this new approach that is just around the corner.

When it comes to value supply chains, there two issues to be considered: water supply and soil. This last component is vital to understand the new agriculture if one considers the carbon stock in soil and how it can be managed in tropical agriculture. This use of soil is important not only to preserve biodiversity, but also to meet net zero emission strategies.

Bringing the different diplomacy prisms, climate will become the driver that will mobilize people. And, if you follow the Paris Agreement players, another conclusion is that it has a robust support from the energy sector in developed countries while in developing countries are more connected to land use aspects of the Agreement. Therefore, there is an opportunity to land use players to have ambitions, visions, and perspectives into this new political environment based on food security, food safety, food sustainability and nutrition. The world cannot waste critical time in Brazil about political-only disputes on Cerrado and Amazon without a structured framework that would influence Brazil and other international players, creating a New Agenda of Green Global South Players.

2.1.4 Breakout Rooms – Block I

It was promoted an in-depth debate on specific key-questions, as follows.

1. Which commercial agreements, policies and initiatives are most relevant for Brazilian agricultural commodities' trade-related production?
2. What would be the most impactful (but still realistic) measures that could make Brazilian agricultural trade more environmentally sustainable?
3. What are the possible impacts (in short, medium, and long term) of these measures?

2.2 BLOCK 2: EU – Mercosur Trade Agreement

2.2.1 EU-Mercosur Agreement Overview

Regarding the potential impacts of this agreement in Brazilian agriculture commodities production and deforestation, it was presented a research from Amazon Institute of People and the Environment[1] that demonstrated that the EU-Mercosur agreement would have a negative impact in terms of deforestation, where the biggest area of impact is in Brazil, and the Amazon region is the most affected area, including indigenous protected lands.

The biome of Cerrado will also be affected by this Agreement, including protected areas, indigenous land zones and lands that are already under great pressure. The main conclusion of the research is the Brazilian Government unwillingness to mitigate the risks. This conclusion is based in the following actions been carrying on by the government:

- Brazil has reduced the enforcement of environmental laws.
- Brazil has reduced civil society participation.
- Brazil has attempted to undermine indigenous lands rights.

[1] Amazon Institute of People and the Environment Is the EU-MERCOSUR trade agreement deforestation-proof? / Instituto do Homem e Meio Ambiente da Amazônia – Belém, PA, 2020.

- Brazil has attempted to benefit land grabbers by approving bills that allow land regularization.

In addition to these factors, the authors concluded that the Trade and Sustainable Development Chapter of the Agreement is not sufficient to mitigate risks. The climate mitigation targets are below the minimum requirements, there are no concrete incentives, e.g., REDD+ payments, no sanctions to stimulate compliance, and limited civil society space to participate.

To improve the performance, several measures are recommended by the authors, including the reduction of deforestation scope, incorporation of civil society participation in the process and the use of REDD+ funds in risk areas. The REDD+ funds estimated to reduce the risks was 2.4 billion Euro, the equivalent of one year of cost savings due to tariff reductions.

2.2.2 Safeguards Negotiations and Environmental Aspects

According to the WTO, Safeguards are trade defence measures that allow countries to increase tariffs to protect a specific domestic industry from an increase in imports of any product which is causing, or which is threatening to cause, serious injury to the industry. The safeguards can restrict imports of a product temporarily.

Even though Safeguards are legitim, sometimes they are applied as protectionism measures, which can be classified as a distortion of the tool. In this report, it will refer to Safeguards in three environments:

- World Trade Organization.
- Trade Agreements.
- New Green Deal.

2.2.3 World Trade Organization

In the WTO multilateral trade rules, there is no environmental agreement up to this point. By mid-2020 and January 2021, new initiatives are taking shape. Firstly, there is a group of countries auto-claimed “Friends Advancing Sustainable Trade (FAST Group)”

that is proposing a plurilateral trade agreement. The USA is advancing in a proposal named “Advancing Sustainability Goals through Trade Rules to Level the Playing Field”. The European Union has announced that it will propose a trade sustainability and climate change crises.

For now, these are intentions, but nothing concrete has happened in the scope of the WTO. Due to this, it is impossible to have defensive measures in the context of multilateral trade agreements.

2.2.4 Trade Agreements

As far as Brazil’s Trade Agreements, it is important to mention the Mercosur Trade Agreement and the EU-Mercosur Agreement. The Mercosur Trade Agreement has a provision on trade restrictions regarding the environment, but there is no provision to deal with environmental issues, no provisions allowing country-members to apply defensive trade measures. In the context of Mercosur, there is a set of rules regulating the trade to settle disputes mechanisms, but nothing related to trade restrictions on the environment.

The EU-Mercosur Trade Agreement, there is a chapter on trade and sustainable development. All environmental and climate change protection are included in this chapter, from Rio 1992 to Paris Agreement, to United Nations Conventions and Resolutions from International Labour Organization. In the EU-Mercosur Agreement is it possible to invoke precaution rules that exist in EU rules. However, even with all this care, the chapter is not subjected to the settlement of the dispute mechanism of WTO. It means that no sanctions are possible to be imposed. There is no enforcement mechanism.

In the Agreement there is a possibility of bilateral consultation with the participation of civil society, and it is foreseen the establishment of a Panel of Experts that could make recommendations to the governments. Most recently, the Climate Action Network (CAN) has developed some initiatives putting pressure on the Paris Agreement to improve the reduction on carbon emissions - Brazil and the EU are members of the

Agreement - and on the latest Brazilian announcement regarding this topic. According to the CAN, it was a step back in relation to what was signed in 2015.

In conclusion, the EU-Mercosur Agreement is not an enforceable trade agreement and Brazilian Government declarations regarding the targets signed on the Paris Agreement are being contested. The problem faced by the EU-Mercosur Agreement is the difficulty to ratify the Agreement. The ratification process is likely to start in 2021, but it is already facing problems because of growing opposition within European Parliament due to Brazil Government environmental policies. Countries such as France and the United Kingdom (UK) are passing legislation recommending stopping purchasing Brazilian products that originate from deforestation areas.

In this context, some experts are working in building an Environmental Diplomacy project, developed in partnership with the University of São Paulo (USP). This project aims to identify all commitments accepted by Brazil in all international agreements related to the sustainable development spectrum. A unique aspect of the Environmental Diplomacy project is that to each identified agreement, there will be a description about the "real situation": how Brazil is observing the agreements engagements and following them – or not. The project will be released in March 2021.

2.2.5 New Green Deal

Europe is passing legislation to ban the purchase of products from areas of deforestation, since Amazon is a big source of environmental concern to those countries. Private companies are considering boycotting Brazilian products and financial institutions are discussing financial restrictions.

Moreover, the new President of the USA, Mr. Joe Biden, has pledged to develop a plan to promote the protection of the Amazon Rainforest and other ecosystems that are facing critical menaces. The pledge states that environment plays a fundamental role in the USA foreign policy and it is considered a matter of national security.

President Biden has announced he will have a Climate Change high-level meeting next April. Former USA Environmental Minister and Negotiators presented a letter to the

President with a comprehensive proposal on how to deal with the Amazon issue and requesting financial support to make pressure on the Brazilian Government to reduce the emissions in the region.

2.2.6 Breakout Rooms – Block II

It was promoted an in-depth debate on specific key-questions, as follows.

1. What are the possible impacts of the EU-Mercosur agreement on the Brazilian agricultural commodities production and trade and on the environment?
2. What are the possible impacts of the non-ratification of the agreement on the Brazilian agricultural commodities production and trade and on the environment?
3. What would be the most impactful (but still realistic) measures that could make this agreement more environmentally sustainable?

3. Second day of Workshop: 4th February 2021

9 a.m. – 1 p.m. (GMT -3) | 20 attendees

The second day of the Workshop was focused on TRADE HUB project participants. After a recap of the first day, there was a session on next steps for the research.

3.1 BLOCK 1: Debriefing and Next Steps

3.1.1 Commentary of Trade and Political Agreements

In this initial comment, the experts referred to Day 1 presentations about International Trade Agreements' concepts, objectives, and general features. It is important to highlight the difficult time the WTO is facing to advance in general negotiations. It was pointed out that there has never been a real negotiation outcome on agriculture since the Doha Round.

According to observations on the discussion on Day 1, the suggestion is to model the Regional Trade Agreement using three perspectives:

- No agreement ratified.

- Mercosur Agreement ratified but not implemented in an environmental spectrum.
- Mercosur Agreement ratified and implemented.

3.1.2 Breakout Rooms – Block I

It was promoted in-depth debate on specific key-questions, as follows.

1. What are the possible impacts of these agreements and criteria?
2. How can these measures guide the modelling for Brazilian agricultural commodities' trade-related production?

3.2 BLOCK 2: Research Support Models

3.2.1 Interactions with GLOBIOM

It was explained some of the work already developed using GLOBIOM – Global Biosphere Management Model. According to the findings, there is a risk of a huge part of the population to face food scarcity crisis if a smart multilateral trade system is not implemented, considering climate change and adaptation of trade. According to the studies, over 73 million of people would be undernourished.

The TRADE Hub Work Package 5 preliminary baseline scenarios studied using the GLOBIOM:

Following the "Middle of the Road" Shared Socio-Economic Pathway (SSP2):

- Prolongation of the historical trends and limited efforts for conservation and sustainable production and consumption.
- Human population peaks at 9.4 billion by 2070: economic growth is moderate and uneven with continuing globalization but slow convergence.
- Global demand for land-based production will increase by more than 70%, while land productivity increases about 60% at global scale.

The model will consider alternative scenarios, such as a trade liberalization and a more restricted one, as the mentioned below:

- Trade Hub WP5 preliminary alternative scenarios.
    - Alternative trade futures.
        - Exacerbated trade liberalization:
            - Full elimination of tariffs by 2030.
            - Reduction of other barriers and trade expansion costs in 2030 (Janssens et al. 2020).
        - Frictions and reconfigurations:
            - Increase in other barriers and trade expansion costs in 2030 (SSP3 “regional rivalry”).
            - Capping of exports of deforestation commodities (Soya, Oil Palm, Beef) from tropical countries (not more than 5% increase per decade) in 2030 (Popp et al. 2017).

3.2.2 Interactions with TRASE

The TRASE – Transparency for Sustainable Economies, empowers markets, civil societies, and governments to transition towards sustainable commodity and consumption by revolutionizing the transparency of the trade on the ground and at scale. TRASE mission is to make more granular information about trade globally and on how commodity flows, moving from Figure 3 to Figure 4.

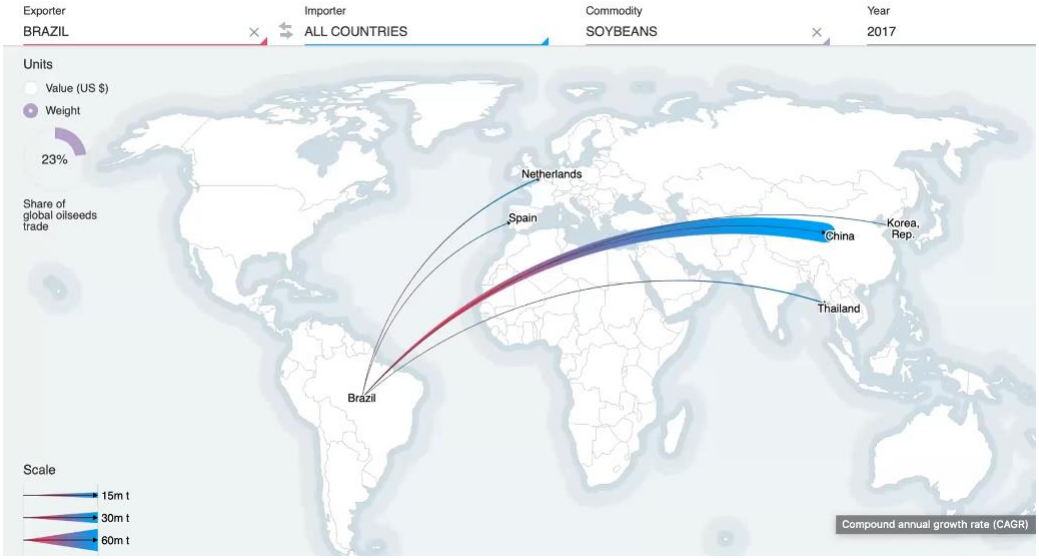

Figure 3 - Soybeans production around the globe

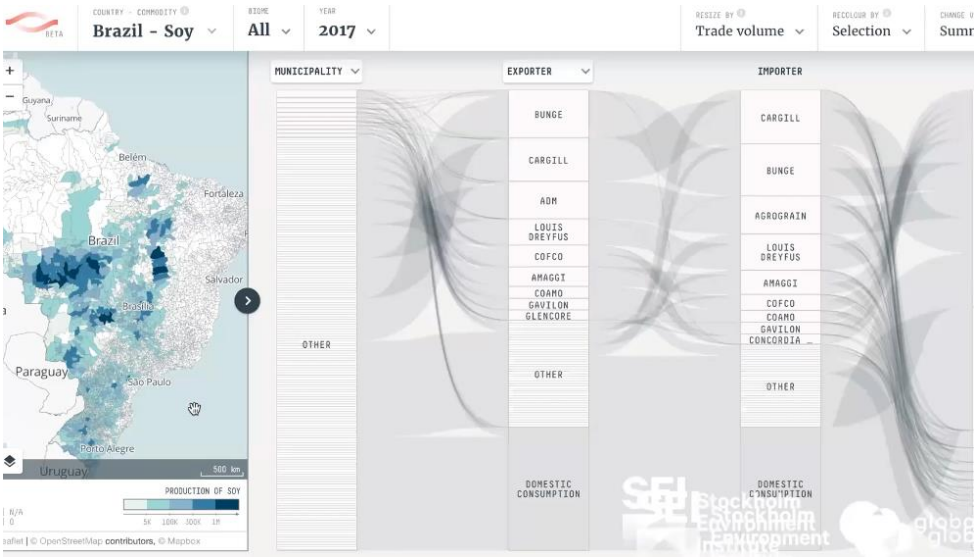

Figure 4 - Granular analysis of soybean

For the Brazilian case, TRASE can provide subnational models for soy, beef, cocoa, chicken, corn, and others. As an impartial open-access information database and an online platform for supply chain transparency, TRASE brings a whole new level of data science and visualization of the global supply chain.

Analysing trends and scenarios in order to simplify narratives is a benefit that the TRADE Hub will have from TRASE work, becoming easier to determine “who”, “what”, “where” and “how” output and trade are changing or how it can change in the future.

Figure 5 - Key actors per countries

Finally, the primary contribution of TRASE is offering insights of the reality of the supply chains that might not be 100% explicit.

4. Final considerations

Regarding the identification of the main international trade agreements, initiatives, processes, as well as, the public and private policies that act, or can act, in conjunction with sustainability and biodiversity conservation in Brazil, the main contributions were compiled in the excel file that follows with this document.

This input will help IIS to formulate the scenarios and, consequently, estimating their effects on commodities production, land use change and in biodiversity, within the project scope.

In terms of the specific scenarios suggested in the workshop, the follow was mentioned:

- No agreement ratified.
- Mercosur Agreement ratified but not implemented in an environmental spectrum.
- Mercosur Agreement ratified and implemented.

Additionally, it is important to considering the TRADE Hub Work Package 5 preliminary scenarios:

- Following the “Middle of the Road” Shared Socio-Economic Pathway (SSP2):
    - Prolongation of the historical trends and limited efforts for conservation and sustainable production and consumption.
    - Human population peaks at 9.4 billion by 2070: economic growth is moderate and uneven with continuing globalization but slow convergence.
    - Global demand for land-based production will increase by more than 70%, while land productivity increases about 60% at global scale.

The model will consider alternative scenarios, such as a trade liberalisation and a more restricted ones, as the mentioned below:

- Trade Hub WP5 preliminary alternative scenarios.
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        - Frictions and reconfigurations:
            - Increase in other barriers and trade expansion costs in 2030 (SSP3 “regional rivalry”).
            - Capping of exports of deforestation commodities (Soya, Oil Palm, Beef) from tropical countries (not more than 5% increase per decade) in 2030 (Popp et al. 2017).

Regarding the models and tools, it was verified that they are the best way to estimate the possible impacts of trade scenarios on commodities production, land use change and biodiversity. In this context, it is important to call the attention that the scenarios must be chosen according to the models’ scope.