Sustainability criteria in international trade in agricultural products

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Summary

The aim of this work is to identify how social and environmental criteria and standards have been addressed in international trade of agricultural products, with emphasis on the largest import markets of Brazilian grain and beef (European Union and China). To this end, we will pinpoint and describe: a) how social and environmental considerations have been reflected in bilateral and multilateral trade agreements (e.g. WTO and EU-Mercosur Agreement); b) what are the main non-tariff (sanitary, phytosanitary) barriers linked to sustainability in the trade of agricultural products (presence of genetically-modified organisms, use of pesticides and antibiotics, preservation of biodiversity, etc.), based on practical cases; c) which are the voluntary sustainability standards (certifications) linked to exports of Brazilian agricultural products. We can notice that international trade, previously seen as a potential driver of negative impacts for the environment and to labour relations, has been lately perceived as a potential promoter of improvements in working conditions and environmental preservation, even though a gap often persists between practices and discourses. The primary method used was documentary and bibliographical research.

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List of Abbreviations

ADM – Archer Daniels Midland

ANVISA – National Sanitary Surveillance

AQSIQ – Chinese General Administration of Quality Supervision, Inspection and Quarantine

CAR – Rural Environmental Registry

CBD – Convention on Biological Diversity

CITES – Convention on International Trade in Endangered Species of Wild Fauna and Flora

COFCO – China National Cereals

COP21 – Conference of the Parties to the United Nations Framework Convention on Climate Change

EFTA – European Free Trade Association

EU – European Union

FAO – Food and Agriculture Organization

FPIC – Obtain Free, Prior and Informed Consent

GATT – General Agreement on Tariff and Trade

GMOs – Genetically Modified Organisms

IBAMA – Brazilian Institute of Environment and Renewable Natural Resources

IFC – International Finance Corporation

ILPF – Crop-Livestock-Forestry Integration

INDCs – Intended Nationally Determined Contributions

INMETRO - National Institute of Metrology, Standardization and Industrial Quality

IPPC – International Plant Protection Convention

LAIA – Latin American Integration Association

LDC – Louis Dreyfus Company

LULUCF – Land Use, Land Use Change and Forest

MAPA – Ministry of Agriculture, Livestock and Supply

MEAs – Multilateral Environmental Agreements

NAFTA – North American Free Trade Agreement

OIE – International Organisation for Animal Health

PRAs – Environmental Compliance Programs

RASFF – European Union´s Rapid Alert System for Food and Feed

RTRS – Round Table on Responsible Soy

SACU – South African Customs Union

SCF – Soft Commodities Forum

SNDI – National Strategy to Combat Imported Deforestation

TRIPS - Agreement on Trade-Related Aspects of Intellectual Property Rights

TRQ – Tariff Rate Quotas

TSD – Trade and Sustainable Development Chapter

UNFCCC – United Nations Framework Convention on Climate Change

WBCSD – World Business Council for Sustainable Development

WHO – World Health Organization

WTO - World Trade Organization

1. Introduction

1.1 Overview of Brazilian trade relations

Brazil's global trade has historically concentrated around products, exporters and target countries. Until the early 21st century, the country invested in trade agreements with developed countries (European and North American markets) and multilateral negotiations for the opening of agricultural markets, such as the General Agreement on Tariff and Trade (GATT, created in 1947) and the World Trade Organization (WTO, created in 1995). The burgeoning of Chinese trade, which started in the 2000s, and the growing supply of Brazilian grains has changed the business flow between both countries. The case of soybean trade is a clear example of that, also affected by the internal dynamics of other leading market players, as the USA, Argentina and the EU (De Maria et al, 2020[1]; Boerema et al., 2016[2]). In a few years China became the main importer of Brazilian agri-food exports, accounting for 32.4% of Brazil's exports and 7.6% of imports in 2019 (Miranda et al., 2020[3]). As such, Brazil's trade partner ranking has changed, however, exports continue to concentrate around low value-added products, which represent a high commercial and economic risk due to dependence on a few countries that import a large volume of commodities.

Agriculture has historically been treated as a special case in international institutions and in trade agreements. It is subjected to specific technical, sanitary and phytosanitary standards, as well as to market liberalization mechanisms that are less ambitious than those connected to industrial trade. These "traditional" regulations are motivated by concerns related to human, animal and plant health, and in particular food safety (that have been growing since). There is also a new list of concerns led by sustainability and climate change, which are important elements, particularly in developed countries (Naidin et al., 2020[4]). The regulations that have emerged from these concerns focus not only on international trade in agricultural and food products *per se* but also on production processes and the conditions under which tradable goods are produced (generally referred to as Process and Production Methods, or

[1] De Maria, M., Robinson, E. J. Z., Kangile, J. R., Kadigi, R., Dreoni, I., Couto, M., Howai, N., Peci, J., Fiennes, S. Global Soybean Trade. The Geopolitics of a Bean. UK Research and Innovation Global Challenges Research Fund (UKRI GCRF) Trade, Development and the Environment Hub, 2020. DOI: https://doi.org/10.34892/7yn1-k494.

[2] Boerema, A. et al. Soybean Trade: Balancing Environmental and Socio-Economic Impacts of an Intercontinental Market. PLOS ONE. Edited by A. Zia. Public Library of Science, 11(5), pp. 1–13, 2016. DOI: 10.1371/journal.pone.0155222.

[3] Miranda, S. H. G, Jank, M. S, Soendergaard, N. Opportunities and challenges to strengthen bilateral agri-food trade: the Brazilian perspective. In: Jank, M. S.; Guo, P.; Miranda, S. H. G. China-Brazil Partnership on Agriculture and Food Security. ESALQ and CAU, 2020.

[4] Naidin, L. C.; Veiga, P. M.; Rios, S. P. Diplomacia Alimentar. Qual o apetite do Brasil no cenário mundial? Instituto Escolhas, CINDES, 2020.

short PPM). Consumer interests and preferences play an increasingly important role in this scenario while discussions of favouring local production gain ground.

The establishment of standards and rules with potential to impact the production and marketing of agricultural and food products takes place at many different levels: international, intergovernmental or private institutions, producers of technical standards (CODEX Alimentarius, OIE and ICPV); trade negotiations (multilateral and preferential), national or regional policies (such as the European Union), and private initiatives (via voluntary certification schemes). At a national level, in addition to the commercial guidelines, there are guidelines from entities in charge of technical and sanitary standards (such as the National Institute of Metrology, Standardization and Industrial Quality (*Instituto Nacional de Metrologia, Qualidade e Tecnologia* - INMETRO) and the National Sanitary Surveillance Agency (*Agência Nacional de Vigilância Sanitária* - Anvisa), regulatory instructions, ministerial ordinances.

Among the recent international trade movements, those with the greatest potential to impact on Brazilian agricultural production are the Mercosur-European Union agreement (with a specific chapter on sustainable development), European and Chinese policies related to food safety and health (the European Union being the most demanding importer in this aspect, and China the largest importer in terms of volume of commodities), and voluntary international private initiatives for certification, which fall under specific agri-exporting sectors, such as soybean, palm-oil, cocoa, sugar.

1.2 Trade agreements to which Brazil is a member

Brazil has been a member of the World Trade Organization (WTO), since its creation in 1995, and of the Latin American Integration Association (LAIA) since 1980.

It has been a member of Mercosur since 1991, along with Argentina, Paraguay and Uruguay. Venezuela became a member in 2012 but has been suspended from the bloc since August 2017; Bolivia joined in 2015. The associated members of the trade bloc are Chile (since 1996), Peru (since 2003), Colombia (since 2004), Ecuador (since 2004), Guyana and Suriname (since 2013). The aim is to establish a free trade area via Mercosur with all associated members (Moraes et al., 2020[5]; MDIC, 2020[6]).

[5] Moraes, O., Diaz, J., Lopes, V., Bueno, F., Azevedo, M., Staibano, M. International trade in goods and services in Brazil: overview. In: Thomson Reuters Practical Law. Updated on 1 April 2020. Available at: https://ca.practicallaw.thomsonreuters.com/w-011-0773?transitionType=Default&contextData=(sc.Default)&firstPage=true

[6] www.mdic.gov.br/index.php/comercio-exterior/negociacoes-internacionais

Mercosur member states signed trade agreements with India (2004, under expansion) and with the South African Customs Union (SACU) in 2009. Brazil has also entered into trade agreements with Israel (in force since 2007), Egypt (in 2010, implemented in Brazil in December 2017) and Palestine (in 2011, currently under ratification by all Mercosur members). There are agreements with Peru (2016), however currently not in force (Moraes et al., 2020; MDIC, 2020).

After years of negotiation, the Mercosur negotiations with the European Union were concluded in 2019 (discussions started in 1999, were interrupted in 2004 and resumed in 2016) and with the European Free Trade Association (EFTA, composed of Iceland, Liechtenstein, Norway and Switzerland). Both agreements are now under legal review for parliamentary ratification and are therefore in the final stages of negotiation, however, not yet in force. These agreements are more comprehensive than previous agreements since they extend beyond pure tariff cuts to also include regulatory provisions on goods and services (Moraes et al., 2020). The Mercosur-European Union agreement is the first trade agreement entered into by Brazil that associates trade issues with environmental and labour issues, something which Brazil (as well as many other countries) was so far hesitant of doing in preferential and multilateral negotiations (Naidin et al., 2020).

In general, Brazil's participation in international trade is aligned with the following principles: (i) ability to access foreign markets (tariff and quota opening agenda); (ii) subsidy grant cuts for production and exports; (iii) resistance to new criteria for qualitative assessment of the production process; and (iv) questioning at WTO of local measures adopted by other Member States and perceived as harmful to the interests of Brazilian exporters (Naidin et al., 2020).

Brazil is currently trying to initiate or to further negotiations with the United States, Canada, South Korea, Singapore, Mexico and India, in addition to making an effort to become a member of the OECD (MDIC, 2020).

2. The World Trade Organization (WTO)

2.1 Overview[7]

The World Trade Organization (WTO) is an intergovernmental organization established in 1995 after the Uruguay Round (1986-1994), which addressed, among other topics, a reduction in agricultural subsidies. Composed of 164 member nations, it aims to pave the

[7] Source: https://www.wto.org/english/thewto_e/thewto_e.htm e https://www.wto.org/index.htm

way for open trade and it has a mandate to prohibit any discrimination between trading partners. The WTO incorporates the General Agreement on Tariffs and Trade (GATT), a legal framework that has regulated trade in goods and products since 1947. Beyond the GATT, the WTO also houses agreements that target services and ideas (intellectual property), among others. Key for the achievement of the WTO's mandate is its Dispute Settlement Bodies and procedures, that have final decision-making power and the ability to enforce its decisions via powerful trade sanctions.

The WTO agreements that deal with matters directly related to agricultural production are the Agreement on Agriculture[8], the Agreement on the Application of Sanitary and Phytosanitary Measures[9] and the Agreement on Technical Barriers to Trade[10].

The WTO does not set regulatory standards or technical rules for products; the organization's agreements on sanitary and phytosanitary measures and technical barriers aim to establish procedures to prevent these standards, developed by other institutions, from being discriminatory and producing barriers to trade motivated by protectionist interests. The benchmark institutions considered by WTO on these issues are the committee of the Food and Agriculture Organization/World Health Organization (FAO/WHO), the Codex Alimentarius Commission, World Organisation for Animal Health (OIE) and the International Plant Protection Convention (IPCC/FAO).

In addition, there is the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS[11]), which affects agricultural production and trade on two fronts: geographical indications and patent protection for agricultural chemicals.

WTO's provisions on the environment and human rights are set out below.

2.2 WTO and the environment[12]

The WTO states in its preamble that sustainable development and environmental protection are fundamentally linked to the goals of the institution, which seek to promote them through

[8] Full text: https://www.wto.org/english/docs_e/legal_e/14-ag_01_e.htm; abridged version: https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm3_e.htm
[9] Full text: https://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm; abridged version: https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm4_e.htm
[10] Full text: https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm; abridged version: https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm4_e.htm
[11] Full text: https://www.wto.org/english/docs_e/legal_e/31bis_trips_01_e.htm; abridged version: https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm; TRIPS terms relevant to agriculture: http://www.fao.org/3/x7355e/X7355e03.htm#TopOfPage
[12] This topic is based on: https://www.wto.org/english/tratop_e/envir_e/envir_e.htm; and https://www.wto.org/english/thewto_e/whatis_e/tif_e/bey2_e.htm

trade in products and services. Emphasis on environmental policies is, however, relatively recent in the 60-year history of the multilateral trading system.

Institutionally, at the end of the Uruguay Round in 1994, a work program was created within the WTO to study the relationship between trade and the environment, under the responsibility of the so-called Trade and Environment Committee. The 1994 Marrakesh Agreement[13] formalizes member countries' commitment regarding this issue, and the Doha Round in 2001 kicked off the multilateral negotiations that address it.

The agenda of the Trade and Environment Committee is guided by proposals from individual WTO members. It is within this framework that critical international trade issues are discussed, for example the relationships between market access and environmental requirements, to avoid what is known as 'green protectionism'. Another topic that is considered critical is environmental certifications, which require preventing that the right to information of consumers implies a loss to producers. The committee's work is grounded on two important principles:

- WTO's is only competent to deal with trade. In environmental matters, its only task is to study issues that arise when environmental policies have a significant impact on trade. As stated by WTO in relation to the committee: "WTO is not an environmental agency. Its members do not want it to intervene in national or international environmental policies or set environmental standards."

- If the committee identifies problems, its solutions must continue to uphold the WTO's trade principles.

Approximately 200 international environmental agreements (outside the WTO) are in force - the so-called multilateral environmental agreements (MEAs). About 20 of them have terms that affect trade, barring the trade of some types of products or certain products in some circumstances - for example, the Montreal Protocol, the Basel Convention and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

WTO is considering more directly the trade and sustainability nexus, but there is still a long way to go before we can see really integrated international trade and environmental policies, tools and regulations (WTO CTE, 2020[14]). The organisation recognizes that trade can be a direct cause of environmental problems but points out that trade restrictions are not the only, nor the most effective, actions to be taken; alternatives would include helping countries to

[13] Full text https://www.wto.org/english/docs_e/legal_e/marrakesh_decl_e.htm
[14] WTO CTE. Communication on Trade and Environmental Sustainability, 17 Nov 2020. https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/CTE/W249.pdf&Open=True

acquire "environmentally-friendly" technology, giving them financial aid, providing training, etc (WTO, 2020) - a vision that seemingly maintains the "market-driven" bias that is at the core of the organization.

It also states that if a dispute arises because one country takes commercial actions, such as imposing tariffs or restricting imports, based on the terms of an environmental agreement outside the WTO, and another country contests such actions, this dispute must be resolved within the framework of the environmental agreement in question, provided that both are signatories. If one of the parties is not a signatory, then the WTO could be the forum to resolve the dispute through its Dispute Settlement Body.

The 1944 GATT provides the legal framework for WTO member countries to decide on trade restrictions based on environmental considerations by means of Article XX[15]. It establishes exceptions to free trade, i.e., it indicates when the GATT general rules may no longer be applied (for example, blocking imports from a country); items "b" and "g" directly relate to the environment, ensuring that a country unilaterally adopts measures necessary for the protection of life or health of humans, animals and plants (GATT Art. XX.b) and for the conservation of exhaustible natural resources, if such measures are made effective in conjunction with restrictions on domestic production or consumption (GATT Art. XX.g). Such measures, however, cannot be applied in such a way as to constitute a form of arbitrary or unjustified discrimination or a disguised restriction on international trade - basic guiding principles of GATT. In other words, an importing country cannot apply one type of environmental standard for one country and a different one for another country (non-discrimination principle, GATT Article I); moreover, environmental measures imposed on imported products cannot be stricter than those enforced on local products (national treatment, GATT Article III)[16].

The Agreement on the Application of Sanitary and Phytosanitary Measures (which deals with food sanitation and animal and plant health, including provisions on hygiene, conservation, labelling, waste from pesticides, additives, contaminants, etc.) and the Agreement on Technical Barriers to Trade (which deals with the regulation of goods and services), both mentioned earlier, also provide scope for the adoption of environmental measures.

[15] Full text: https://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf; abridged version: https://www.wto.org/english/res_e/booksp_e/gatt_ai_e/art20_e.pdf
[16] https://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf

2.3 WTO and human rights[17]

Labour issues, as well as environmental issues, entered the international trade agenda in the 1990s, with NAFTA being a breakthrough agreement in these areas. One of the initial motivations for this would stemmed from the concern about the environmental and social "dumping" supposedly practiced by developing countries, which could lead to distortions in the conditions of international competition; other considerations would be linked to more largely concerns on free trade environmental impacts and displacing of environmental burdens. More recently, globally shared objectives, such as sustainable development or climate agreements have been gaining ground, adding to specific national agendas for food security and consumer protection as drivers for the inclusion of these issues in trade.

According to the WTO, all its member countries are committed to a narrow set of internationally recognized "core" standards on labour and human rights. They are: freedom of association, prohibition of forced labour, prohibition of child labour and absence of discrimination in the workplace (including those based on gender).

At the 1996 Singapore Ministerial Conference, the role of the WTO in this matter was specifically discussed, and the International Labour Organisation (ILO) was defined as the body in charge of negotiating the labour standards. WTO committees and councils are not dedicated to this issue. Nevertheless, the departments of both organizations cooperate on technical aspects with a view to achieving coherence in the preparation of world economic policies. The WTO admits, however, that in matters that go beyond these, the two organizations have difficulty understanding each other and the international enforcement is a contentious area.

Therefore, WTO agreements do not deal with labour standards as such. This issue is still controversial. Some members believe that WTO rules could encourage countries to improve work conditions on their territories, while others, according to the WTO, think it is a kind of protectionism: they claim that this is an attempt by industrialized nations to question the comparative advantage of lower wage trading partners, and could even prevent them from developing economically and improving their work conditions.

According to ILO[18], free trade agreements are increasingly referring to international labour instruments administered under the ILO via clauses specifically covering labout relations in

[17] This topic is based on: https://www.wto.org/english/thewto_e/whatis_e/tif_e/bey5_e.htm
[18] https://www.ilo.org/global/standards/introduction-to-international-labour-standards/international-labour-standards-use/lang--fr/index.htm#P25_15712

the Agreement. This is particularly true for the 1998 Declaration[19]. The ILO labour conventions are also cited in the more recent European Union agreements. Since 2013, 80% of the agreements that have gone into effect contain such provisions, starting with agreements involving the European Union, the United States and Canada. In the case of the European Union, this type of arrangement appears in the special incentive arrangement for sustainable development and good governance (Generalised System of Preferences - GSP+); and another example is the agreement with Japan, entered into force in 2019[20]. In the case of the United States, reference is made to the North American Free Trade Agreement (NAFTA) and other free trade agreements signed with countries such as Chile, South Korea, Morocco, Jordan, Singapore and Central American countries.

Specifically in relation to agriculture, the main ILO conventions are[21]:

- Labour inspection (agriculture) convention, 1969 (no. 129) and its Recommendation on labour inspection (agriculture), 1969 (no. 133) *(not ratified by Brazil*)
- Plantations convention (no. 110), 1958 and its Recommendation (no. 110) for Plantations, 1958 *(ratified but not in effect)*
- Right of association (agriculture) convention (no. 11), 1921
- Rural workers' organisations convention (no. 141), 1975
- Occupational safety and health convention (no. 155), 1981 and its Recommendation (no. 164) on the safety and health of workers, 1981
- Occupational health services convention (no. 161), 1985 and its Recommendation (no. 171) on occupational health services, 1985.
- Safety and health in agriculture convention (no. 184), 2001 and its Recommendation (no. 192) on safety and health in agriculture, 2001 *(not ratified by Brazil)*
- Promotional framework for occupational safety and health convention (no. 187), 2006 and its Recommendation (no. 197) on promotional framework for occupational safety and health, 2006 *(not ratified by Brazil)*
- Minimum wage fixing Convention (no. 99) (Agriculture), 1951.

[19] Déclaration de l'OIT relative aux principes et droits fondamentaux au travail et son suivi (adoptée par la Conférence internationale du Travail à sa 86ème Session, Genève, 18 juin 1998/ Annexe révisée le 15 juin 2010). Full text: https://www.ilo.org/declaration/thedeclaration/textdeclaration/lang--fr/index.htm
[20] https://ec.europa.eu/trade/policy/in-focus/eu-japan-economic-partnership-agreement/
[21] https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_438069.pdf

- Holidays with pay convention (no. 101) (agriculture), 1952 *(ratified but not in effect)*

3. The European Union

3.1 The European Union's trade agreements

A free trade agreement negotiated and signed by the EU should not only list the parties' commitments to the international environmental or social obligations they have ratified. In accordance with article no. 21 of the European Union Treaty[22], it must require concrete actions to be taken so that the commitments may be implemented.

As mentioned earlier, the EU-Mercosur Agreement is the first agreement signed by Brazil that explicitly combines environmental and labour issues with trade issues, an association generally refused by Brazil (and other countries as well) in preferential and multilateral trade negotiations. Such an agreement is part of what the European bloc calls the "new generation" of preferential trade agreements, an "important instrument for the promotion of European values related to workers' rights and environmental protection, including climate change" (EC, 2019: 38).

3.1.1 Environment and human rights in the EU: the new generation agreements

New generation agreements include a specific Trade and Sustainable Development chapter (TSD), which binds both parties to standards set forth in both multilateral environmental agreements - including the Paris Agreement for those negotiated after 2015 - and in ILO conventions. The term was coined after the EU's free trade agreement with South Korea in 2011. The EU-Mercosur and EU-Canada (CETA) agreements are recent examples.

The TSD chapters create a specific monitoring committee (the "TSD Committee") and an advisory group for cases of non-compliance with its provisions. If either party considers that the other has breached its TSD commitments, the EU or its partner may initiate government-to-government consultations within this committee with a view to resolving the problem. Should it fail, a panel of three independent experts may be convened to assess if one of the parties is in disagreement with its obligations and to suggest how to resolve the matter (Voituriez and Laurans, in press[23]).

This means that the provisions of the TSD are not subject to conflict resolution procedures and there are no penalties for non-compliance. According to Voituriez and Laurans

[22] https://eur-lex.europa.eu/collection/eu-law/treaties/treaties-force.html?locale=pt#new-2-51
[23] Voituriez, T; Laurans, Y. Greening trade agreements: A roadmap to narrow the expectations gap. 2020 (in press).

(forthcoming), this point is often misunderstood but justified by the European Commission on the grounds of the lack of effectiveness of sanction mechanisms in EU free trade agreements due to the mere impossibility of demonstrating a clear link between infringement of labour or environmental rules and changes in trade flow. Nevertheless, nothing in the EU's bilateral trade agreements prevents the complainant from taking the dispute to the WTO Dispute Settlement Body in regard, for example, of technical or non-technical barriers.

The lack of clear objectives is a weakness of the TSD chapters. These bring together broad commitments such as "effectively implementing the Paris Agreement", "encouraging the positive contribution of trade" and "cooperating, where applicable, on matters relating to trade and climate change" (Article 6 of the TSD chapter of the EU-Mercosur agreement[24]). What is specifically expected of trade or individual parties is not specified, which makes TSD a reminder of the existence of multilateral environmental agreements (MEAs) rather than a lever to implement them. In the case of human rights, the ILO's basic principles are reaffirmed, as we will see below.

3.1.2 The EU-Mercosur Agreement[25]

Sanitary and Phytosanitary Matters

The TSD chapter of the EU-Mercosur agreement contains a clear reference to the precautionary principle[26], ensuring that a party may reject the import of a certain product to protect environment and human health. Europeans believe that the ability to adopt measures on the basis of the precautionary principle also falls under the chapter on sanitary and phytosanitary measures[27], even though scientific justification obligations (Article 11(f)), notification of the predicted measures (Article 12) and scale of the measure (Article 7(B.4)) restrict the effective enforcement of the principle (which would be one way of ensuring compliance with European standards). The Brazilian party understands that the precautionary principle cannot be applied to sanitary and phytosanitary measures[28], creating dissent, discussed even in WTO's Committee on Sanitary and Phytosanitary Measures.

Products exported by one party must comply with the sanitary and phytosanitary requirements enforced by the importer (Article 6.1 of the chapter on sanitary and phytosanitary measures). The EU fears that it will not be able to effectively oppose imports

[24] TDS Chapter: http://www.itamaraty.gov.br/images/2019/Comrcio_e_Desenvolvimento_Sustentvel.pdf
[25] EU-Mercosur Agreement (full text, in English) http://www.itamaraty.gov.br/pt-BR/notas-a-imprensa/20626-texto-do-acordo-mercosul-uniao-europeia.
[26] Defined in Rio 1992, it establishes that when faced with a lack of certainty at any given time due to the absence of technical, scientific or economic knowledge, participants in a trade agreement may take preventive risk management measures with regard to potential damage to the environment and health (e.g. GMOs).
[27] http://www.itamaraty.gov.br/images/2019/Medidas_Sanitrias_e_Fitossanitrias.pdf
[28] http://antigo.agricultura.gov.br/noticias/mercosul-ue-veja-como-ficam-tarifas-e-cotas-para-produtos-agricolas e https://www.beefpoint.com.br/ue-e-mercosul-divergem-sobre-principio-de-precaucao-em-acordo/

from Mercosur that do not reach the level of protection it requires from its producers. Article 7 deals in part A with the approval of establishments for the import of animals, products of animal origin, products and by-products of animal origin. It states that the importing party may require the approval of establishments to import such products (section 1), while the exporting party will only allow exports from approved establishments (section 3).

The agreement between the EU and Mercosur as it stands today does not change the sanitary arrangements between the EU and the countries of the South American bloc, however, it may represent inflated risk if trade flows grow (Rapport Ambec, 2020[29]). The agreement also represents a "missed opportunity" to introduce requirements linked to production methods with a view to public health, consumer concerns and fair trade, according to this French rapport.

Examples of EU sanitary and phytosanitary standards

Regulation (EU) 2019/6 of 11 December 2018 concerns veterinary medicinal products. It addresses in Article 118 the enforcement of European standards to third countries, mentioning also that, according to Article 107, antimicrobial drugs cannot be administered routinely or to offset a lack of hygiene, inadequate animal husbandry or to offset poor farm management nor may they be used on animals for the purpose of increasing growth or to increase yields.

Regulation (EC) no. 1830/2003 concerns the traceability and labelling of genetically modified organisms (GMOs) and the traceability of food and feed products produced from GMOs[30]. The regulation lays down rules to ensure that products containing genetically modified organisms can be traced in all stages of the production and distribution chains. The rules cover labelling, monitoring of environmental and health risks and the ability to recall products from the market if necessary. European Union (EU) countries must conduct inspections, sampling and analysis to ensure compliance with GMO labelling rules. Each country must also impose effective sanctions in the event of violations. Products may be recalled if unforeseen harmful effects on health or the environment are observed. Local authorities receive technical guidance from the European Commission. Products containing traces of GMOs (below 0.9%) are exempt, provided that the presence of these traces is technically unavoidable.

[29] Rapport Ambec. Rapport au Premier ministre « Dispositions et effets potentiels de la partie commerciale de l'Accord d'Association entre l'Union européenne et le Mercosur en matière de développement durable. 07 Apr 2020. Available at : https://www.gouvernement.fr/sites/default/files/document/document/2020/09/rapport_de_la_commission_devaluation_du_projet_daccord_ue_mercosur.pdf

[30] The data shows that between 85% and 90% of the soybean plantations in Brazil are genetically modified.

All food and feed products in the European Union (EU) are subject to maximum residue levels for pesticides to protect human and animal health. EU law regulates the limits applicable to different food products and establishes a default maximum limit through Regulation (EC) no. 396/2005 of the European Parliament and of the Council of 23 February 2005. Pesticides are a constant topic of dispute between Brazil and the European Union, with discussions in WTO forums; along with other countries, such as the United States, Brazil complains of low European limits regarding this matter. The argument is that Brazilian production conditions (climate, soil, vegetation, etc.) are different from European ones and to use the same criteria would make agricultural production in other regions impossible. In the EU-Mercosur Agreement, this is one of the greatest points of contention.

Social issues

The TSD chapter of the EU-Mercosur agreement reaffirms the parties' commitment to several agreed conventions (Article 1, section 2), such as Agenda 21 and the 1992 Rio Declaration on Environment and Development, the Johannesburg Declaration on Sustainable Development, ILO’s 2008 Declaration on Social Justice for Fair Globalization, and UN's 2015 document "Transforming our World: Agenda 2030 for Sustainable Development".

In Article 4, on multilateral labour standards and agreements, it states that the parties must respect the fundamental ILO conventions, as they stand: (a) freedom of association and the effective recognition of the right to collective bargaining; (b) elimination of all forms of forced or compulsory labour; (c) effective abolition of child labour; and (d) elimination of discrimination in employment and occupation. Other conventions are mentioned to support these objectives, and the article makes clear that parties should regularly exchange information on their respective progress in ratifying other work-related conventions or protocols.

In Article 9, the parties note that a breach of the fundamental principles and rights at work cannot be invoked or used as a legitimate comparative advantage and that labour standards should not be used for protectionist trade purposes. Article 10 emphasizes that the parties should encourage decent work, with emphasis on: (a) developing and improving occupational safety and health measures, (b) decent work conditions for all, with respect to wages and income and others, working hours and other work conditions; (c) labour inspection, (d) non-discrimination, including for migrant workers. The parties must also ensure that administrative and judicial procedures are accessible so that lawsuits can be filed for violations of labour rights (Article 11).

Environmental issues

The TSD chapter of the EU-Mercosur agreement addresses the relationship between trade and climate change in Article 6, implying that it is the one that regulates deforestation and changes in land use. As mentioned before, no new specific measures are set out. The Agreement only states that parties should effectively implement the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement to reduce greenhouse gas emissions.

Other environmental issues are addressed in Article 7 on trade and biodiversity, in which the following conventions are mentioned: Convention on Biological Diversity (CBD), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the International Treaty on Plant Genetic Resources for Food and Agriculture and also in Article 8, on trade and sustainable forest management.

3.1.3 The Paris Agreement: A cornerstone in the EU's trade agreement with Mercosur

Since the Paris Agreement is one of the cornerstones of the European Union's trade agreement with Mercosur, it is important to understand, in general terms, the foundations on which the Brazilian position is based - remembering that the current government has been vacillating in its efforts to comply with it.

The Paris Agreement, approved at the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) on December 2015, was approved by 195 countries and the European Union, after setting the following aims:

- Limit the global temperature increase to 2ºC and adopt common efforts to reach 1.5ºC, based on actions taken by all parties (mitigation agenda)
- Increase adaptive capacity to the effects of climate change by fostering climate resilience and low-carbon development without compromising food security (adaptation agenda)
- Create consistent financial flows to promote mitigation, adaptation, development and technology transfer (funding agenda)

Every country presented its own target plan to achieve this overall goal and Brazil, one of the ten largest emitters in the world, plays a key role in this scenario. The "Intended Nationally Determined Contributions" (INDCs) submitted by Brazil contemplate an emission reduction target of 37% by 2025 and 43% by 2030, based on 2005 levels. Actions related to land

usage, renewable energies and low-carbon agriculture make up the core elements of Brazil's commitments.

Box 1 - Brazil's contributions to the Paris Agreement

LAND USE, LAND USE CHANGE AND FOREST (LULUCF)

- Implementation of Forest Code
- Reduce illegal deforestation to zero in the Amazon by 2030
- Offset for emissions from legal deforestation by 2030
- Restore and reforest 12 million hectares of forest for multiple uses
- Improve sustainable forest management

ENERGY

- Increase the share of sustainable biofuels to 18%, including a greater share of advanced biofuels
- Reach 45% of renewable energy sources, including the use of sources not limited to hydroelectric, biomass, solar and wind
- Achieve 10% energy efficiency in power generation by 2030
- Incentivise actions that promote improvements in public transport infrastructure

AGRICULTURE

- Encourage low-carbon farming, considering the restoration of 15 million hectares of degraded pastures and 5 million hectares of the crop-livestock-forestry integration system (ILPF) by 2030

INDUSTRY

- Promote new standards of clean technologies that boost energy efficiency and adopt low carbon infrastructure in the industrial sector

Source: Federative Republic of Brazil, Intended Nationally Determined Contribution Towards Achieving the Objective of the United Nations Framework Convention on Climate Change.

Eliminating illegal deforestation is therefore one of the main goals for Brazil in the Paris Agreement, although compliance with the law is a challenge to be overcome. Compliance with the Forest Code is based on the Rural Environmental Registry (*Cadastro Ambiental Rural* - CAR) and the State Environmental Compliance Programs (*Programas Estaduais de Conformidade Ambiental* - PRAs), which can distinguish illegal from legal conversion, inspecting and sanctioning the conversion of new areas without prior authorization. In addition, rural producers who have an environmental deficit on their properties may continue to use these areas, as long as they recover part of them and do not convert any other native vegetation into pasture or plantations. The recovery of pastures and the implementation of Crop-Livestock-Forestry Integration (*Integração Lavoura-Pecuária-Floresta* - ILPF) areas are actions linked to low-carbon farming.

3.1.4 The European Union's Green Deal

In December 2019, the European Commission launched the "Green Deal"[31], a plan that aims to guide the bloc's policies and decisions for the next five years. The Green Deal reaffirms the EU's commitments to environmental and social sustainability in its trade agreements. To this end, it has launched reports that establish objectives and a programmed timetable for the dissemination of action strategies (between 2020 and 2021). Even though they are fundamentally geared towards actions in European countries, they contain subchapters dedicated to and touching upon European trade policy. It is important to pay attention to future publications that delimit criteria or parameters that may affect Brazilian exports.

The specific report on agriculture and food products, From Farm to Fork[32], for example, states that food products imported from third countries must meet EU's environmental standards. It also states that EU trade policy must contribute to ambitious commitments in third countries in areas such as animal welfare, pesticide use and the fight against antimicrobial resistance. The EU will also seek to promote international standards in relevant international bodies and encourage the production of agri-food products that meet high standards of safety and sustainability, but how it will do this is yet to be seen.

In turn, the 2030 Biodiversity Strategy[33] states that the EU will strengthen the links between biodiversity protection and human rights, gender, health, education, conflict sensitivity, the rights-based approach, land ownership and the role of indigenous people and local communities.

To reduce the EU's contribution to global deforestation and forest degradation, the European Commission will present a legislative proposal and other measures in 2021 to prevent or minimise the placement of deforestation-associated products on the EU market. As such, a plan to protect tropical forests, which is still under development, aims to encourage the purchase of commodities from supply chains free of "imported deforestation"[34].

3.2 Trade Practices

The European Union is increasing its international trade in agri-food products. In 2019, the bloc's value of exports within this segment reached EUR 181.2 billion, with biggest exporters

[31] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_fr
[32] Full text: https://eur-lex.europa.eu/resource.html?uri=cellar:ea0f9f73-9ab2-11ea-9d2d-01aa75ed71a1.0007.02/DOC_1&format=PDF
[33] Full text: https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0011.02/DOC_1&format=PDF
[34] Sustainability policies of the European Union https://ec.europa.eu/trade/policy/policy-making/sustainable-development/

being the United Kingdom (EUR 41.2 billion), the United States (EUR 21.8 billion), China (EUR 14.5 billion), Switzerland, Japan and Russia. The export of agri-food products by Brazil accounted for EUR 1.8 billion in 2019 and represented 1% of extra-European Union trade (the country is the 20th in the ranking of EU destinations by value). European exports to Brazil in this segment consist mainly of processed food (such as olive oil and wine) and prepared foods (e.g. with fruit and chestnuts) [35].

As for the European bloc's imports of agri-food, the main suppliers in 2019 were the United Kingdom (EUR 16.8 billion), Brazil (EUR 10.8 billion), the United States (EUR 10.2 billion), Ukraine (EUR 7.0 billion) and China (EUR 5.3 billion). Brazil accounted for 8.9% of EU imports last year. Among the agri-food products imported by the EU from Brazil, 66% were commodities (mainly soy and derivatives, coffee) and 25% were primary and processed products of animal and vegetable origin (fresh and prepared meats, fruits and juices), in 2019[36]. Brazil supplies 40% of the chicken imported by the EU[37]. The main destinations of Brazilian products within the EU are: The Netherlands (Holland), Germany, Spain, Italy and Belgium.

From the Brazilian standpoint, the European Union is the second largest buyer of Brazilian agribusiness products, accounting for 16.2% of Brazil's foreign agribusiness sales in 2020 (accrued from January to August). China, which tops the list, accounts for 38% and the United States stands in third with 6.1%[38].

Sanitary issues are an important point of contention in trade relations between the two countries. According to the latest report of the European Union's Rapid Alert System for Food and Feed (RASFF), Brazil received the following risk notifications by year for the agri-food products it exports: 92 notifications in 2015, 56 in 2016, 373 in 2017, and 108 in 2018[39]. Such notifications are classified into varying degrees, ranging from merely informative notices to the rejection of the product entering into European ports. Reasons include contamination (accidental, environmental or intentional) of products (mainly salmonella in chicken meat); the use of unauthorized substances; incorrect packaging, processing, storage, among others. The year of 2017 was particularly noteworthy due to the scandal linked to Operation Weak Meat (*Operação Carne Fraca*), which unveiled a scheme of adulteration of meat sold on the domestic and foreign markets, and led to a series of audits by Europeans in Brazilian export units.

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[35] https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agrifood-brazil_en.pdf
[36] https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agrifood-brazil_en.pdf
[37] https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/news/documents/agri-food-trade-2018_en.pdf
[38] http://indicadores.agricultura.gov.br/agrostat/index.htm
[39] Rapid Alert System for Food and Feed - 2018 annual report https://ec.europa.eu/food/sites/food/files/safety/docs/rasff_annual_report_2018.pdf

As a result, in April 2018, the European Commission announced that 20 Brazilian meatpackers were removed from the list of companies authorized to export meat (mainly chicken) to the 28 member countries of the bloc. The unanimous decision was the result of the lack of response by Brazilian companies to comply with the requirements established by the EU after the audits had taken place between 2017 and 2018[40]. Two meatpackers were still barred in July 2020[41].

At the end of 2017, the Brazilian Agriculture Ministry decided to temporarily suspend fish exports from the country to the EU in order to avoid a possible unilateral suspension by the bloc[42]. The measure was accompanied by an action plan to respond to EU's questions presented after the audit in September 2017, especially regarding the sanitary conditions of the vessels.

However, the sanitary disputes with the EU are not new. One of the most representative cases took place in 2008, when the European Commission banned imports of fresh beef from Brazil due to the lack of an agreement between European and Brazilian authorities about which Brazilian farms could receive certification to export the product to the member countries of the bloc. The EU had implemented a strict system of traceability and supplier certification in Europe after the mad cow crisis, and began requiring the same from the exporting countries. While Europe stated that the strict sanitary controls were not enough in Brazil, the country responded by claiming that the EU embargo was a breach of WTO trade rules because it was a trade barrier and not a sanitary one. A month later, the EU cleared 106 farms for export but most of them continued blocked.

As for soybeans, batches may be restricted from entering Europe if they contain chemicals (e.g. pesticides) not authorized by the EU, or transgenic organisms other than those approved by the EU for import (Monsanto's glyphosate and Bayer's glyphosate resistant varieties[43] are authorized). In theory, issues such as deforestation or disrespect for human rights could be factors that would prevent the purchase of soybeans in Brazil; therefore, as a rule, there would be no rejection of a batch of the product in the European port, since the moratorium on soybeans would inhibit negotiation before it took place.

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40 https://www.lefigaro.fr/flash-eco/2018/04/19/97002-20180419FILWWW00262-viande-avariee-au-bresil-20-societes-perdent-le-droit.php

41 https://www.lafranceagricole.fr/actualites/elevage/viande-deux-societes-bresiliennes-restent-ala-porte-du-marche-europeen-1,14,1631936869.html

42 https://www.gov.br/agricultura/pt-br/assuntos/noticias/mapa-suspende-preventivamente-exportacao-de-pescado-para-a-uniao-europeia

43 https://ec.europa.eu/commission/presscorner/detail/pt/MEMO_04_102

4. China

4.1 Bilateral trade

Brazil's bilateral trade with China has grown significantly since 2002. Both countries have traded informally via Hong Kong since the creation of the Republic of China in 1949 (Mortatti et al., 2011[44]) but business between the countries only increased substantially in the 90s. In 2002, China was the third largest buyer of Brazilian exports, surpassed only by the USA and Argentina. China overtook Argentina in 2008 and in 2009 it became the main destination for Brazil's exports, according to MDIC (2019).

In addition to being Brazil's largest trading partner, China is the main destination for the country's agri-food exports. In 2013, China and Hong Kong together surpassed the value of agricultural products imported by the EU, historically the largest buyer in the segment. In 2018, China and Hong Kong purchased about 37% of Brazilian agricultural exports, which, added to the 15% from the rest of Asia, enables the continent to account for more than 50% of Brazilian sales (Miranda et al., 2020).

The stratification of the main groups of agricultural products exported to China emphasizes the dependence and risk that dependence on oilseeds - mostly soybeans - represents for Brazil. In 2019, the soybean complex accounted for 62% of agricultural exports to China, followed by the meat complex with 19.2%; forest products with 10.7%; cotton, 2.6%; sugar and ethanol, 1.2% (Miranda et al., 2020).

4.1.1 Tariff barriers

Chinese protectionism tends to grow in line with the amount of value added to the products (Moreira et al., 2016[45]). This pattern is illustrated by the tariff escalation of soy products imported from Brazil by China, with rates of 3% for soybeans, 5% for soy bran and 9% for soy oil, which discourages the import of higher value-added products (Miranda et al., 2020).

China justifies the enforcement of protectionist measures according to the need to ensure its food security. To this end, it applies tariff quotas or macroeconomic measures. Tariff policies are also affected by preferential and regional trade agreements. Brazil is in an unfavourable situation compared to other developing countries, such as Chile, Mexico and South Africa,

[44] Mortatti, C.M.; Miranda, S.H.G.; Bacchi, M.R.P. Determinantes do comércio Brasil-China de commodities e produtos industriais: uma aplicação VECM. Economia Aplicada, 15(2). Apr/Jun. 2011.
[45] Moreira, M.M.; Soares, A.; Li, K. Uncovering the Barriers of the China-Latin America and Caribbean Trade. Inter-American Development Bank (IDB)/Felipe Herrera Library. 82 p. 2016

which also export food products to China, due to a few limits associated with Mercosur Common External Tariff (according to this tariff policy, Argentina, Brazil, Paraguay, and Uruguay need to adopt the same trade policy in relation to third countries). China, on the other hand, continues to swiftly expand its extensive network of trade agreements (Miranda et al., 2020).

4.1.2 Non-tariff barriers

Non-tariff barriers for the export of agricultural products to China may be technical, such as those referred to in the WTO agreements - the Agreement on the Application of Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade, mentioned earlier - or they may include other instruments. Among them, the control of trade through government companies (such as COFCO), a system of prices or Tariff Rate Quotas (TRQ[46]), known for their lack of transparent criteria for the distribution of import licenses.

The future trend seems to be that other non-tariff barriers - technical, sanitary, phytosanitary and environmental standards - will gain relevance, as it is already the case in Europe and in some developed countries. The dissemination of these barriers should be expected, given that a significant part of world food trade occurs between subsidiaries located in developing countries and in headquarters of large transnational retailers, usually located in countries that are at the forefront of technical requirements. Therefore, issues related to product processing, crop management, disease and pest transmission risks, pesticide contamination, labelling, types of packaging, environmental and social standards, intensity of input use and pollution generated in production and consumption may make it potentially more difficult to access markets. This type of trade barrier tends to be more complex than tariff and other non-tariff barriers, since it deals with sensitive issues for consumers, such as health, animal welfare or the environment, which, in addition to their applicability depending on scientific grounds, adds discussions on legitimacy and impact assessment (Miranda e Barros, 2009[47]).

Based on interviews with Latin American exporters, Moreira et al. (2016) have identified the WTO's Agreement on the Application of Sanitary and Phytosanitary Measures as a major technical obstacle in accessing the Chinese market. A Chinese regulatory framework highlighted by the authors is the Law on the Entry and Exit of Animals and Plant

[46] A TRQ regime allows a lower tariff rate on imports of a given product within a specified quantity and requires a higher tariff rate on imports exceeding that quantity.
[47] Miranda, S.H.G., Barros, Geraldo Sant'ana Camargo de. The application of intervention models to non-tariff trade barriers: a case study of Brazilian beef exports. Journal of International Agricultural Trade and Development, v.05, p.255-72. 2009.

Quarantine[48], which determines the official oversight method and approves the farms and industrial facilities from which imports originate. This regulatory tool also establishes quarantines and restrictions in the case of disease, and is applied by the Chinese General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) (Miranda et al., 2020).

Another important regulatory benchmark is the Regulations on the Administration of Genetically Modified Organisms Safety[49], which control imports of food produced with or containing genetically modified organisms. These products need to obtain technical certification from AQSIQ. According to Moreira et al. (2016), the Chinese processes for approval of certified plants for export and GMO producers are more restrictive than international requirements, and the main products affected are meat, soybeans and corn.

According to Mapa (2017), the sanitary and phytosanitary negotiations between both countries have increased year by year. Negotiations are ongoing for the establishment of bilateral protocols for beef, pork and poultry meat, tobacco, corn and animal feed. Brazil is also negotiating to change the certification modality of exporters to China, in addition to protocols for the export of processed meat. The trade policies applied to Brazil's main agri-food exports have different levels of restriction in terms of market access, with protection against soy considered low.

4.2 Chinese business models

In 1998 China adopted a model that it calls "dragon-head companies" (DHEs). DHEs are leading agribusiness firms that, supported by government credits and subsidies, coordinate a series of steps in the value chains (in the meat business, for example, raising and breeding animals, supplying feed and inputs, processing, distributing and selling beef), through combined integration strategies. According to official statistics, the DHEs account for operations of about 70% of livestock production (pigs and chickens), 80% of aquaculture and 60% of the planted area (Schneider,2017[50]).

Concurrently, the Chinese government encourages local companies to invest in agricultural land and resources, processing operations, logistical capacities, and to cooperate with and acquire foreign firms in order to expand the global reach of government enterprises. As such, China combines dependence on food imports with regional or extra-continental

[48] Law of The People's Republic of China on the Entry and Exit Animal And Plant Quarantine: http://faolex.fao.org/docs/texts/chn5760.doc (full text)
[49]Implementation Regulations on Safety Assessment of Agricultural Genetically Modified Organisms: http://extwprlegs1.fao.org/docs/texts/chn64647.doc (full text)
[50] Schneider, M. Dragon Head Enterprises and the State of Agribusiness in China. Journal of Agrarian Change, v.17, n.1, Jan 2017. DOI: 10.1111/joac.12151

agricultural investments, shaping south-south relations based on what it calls agricultural cooperation. Such investments include agricultural equipment, training centres, farms, irrigation systems, transportation and energy infrastructure (Chen and Tian, 2020[51]).

In relation to Brazil, the involvement of government-run companies is more intense than that of private companies. Although policies in both countries have supported agricultural cooperation to some extent, there are still some restrictions on its implementation. Many agricultural companies in China do not have a clear understanding of the business environment in Brazil and the relevant policies between the countries, which could create a trust problem. Therefore, most companies engaged in agricultural cooperation would be government-owned, and private-sector capital could face difficulties to break into the market due to a lack of effective policy guidance and incentives. The lack of communication between Chinese and Brazilian companies could make them unable to learn from their experiences, resulting in setbacks that could cause past problems to recur. In addition, both countries would not be familiar with each other's real needs (Chen and Tian, 2020).

Compared to the scale and potential of Brazil's agricultural exports, China would not present significant advantages, recording a growing trade deficit. Agricultural exports from China to Brazil are relatively limited, and in the long-term advantages for few labour-intensive vegetables should be maintained. Due to the restriction of arable land, Chinese agricultural production has become very concentrated. The excessive use of pesticides and fertilisers, waste, food additives and poor hygiene conditions in production are common problems, causing products exported from China to be frequently rejected and returned for quality and safety reasons (Chen and Tian, 2020).

With the increasing awareness of the environmental consequences of the agricultural sector, the Chinese government has launched several policies to promote green and sustainable agriculture; in 2017, for example, it announced a plan for zero growth in the use of chemical fertilizers and pesticides by 2020. However, these recent modifications in agricultural sustainability have not completely changed the lasting instructions of China's "agricultural industrialisation" policy (McMichael, 2020[52]).

Within this context, public-private partnerships with national and international players have been gaining ground, in agro-industrial markets as well as financial ones. Just to name a few examples, the government-owned China National Cereals, Oils and Foodstuffs Corporation

[51] Chen, H., Tian, Y. Opportunities and challenges to strengthen bilateral agri-food trade: the Chinese perspective. In: Jank, M. S.; Guo, P.; Miranda, S. H. G. China-Brazil Partnership on Agriculture and Food Security. ESALQ and CAU, 2020.

[52] McMichael, P. Does China's 'going out' strategy prefigure a new food regime? The Journal of Peasant Studies, v.47, n.1, 116-154, 2020. DOI: 10.1080/03066150.2019.1693368

Group (COFCO), the country's largest food processor, manufacturer and trader, has controlling interests in Nidera (Netherlands) and Noble (Singapore), two of the largest grain and oilseed traders in the Southern Cone of Latin America. Meanwhile, US private equity firm KKR has a substantial financial stake in the domestic project of a COFCO mega-pig farm. The land acquisition operations of COFCO also include shareholdings by Bayer, Pioneer and even the e-commerce giant Alibaba. China's largest beef producer, Shuanghui International (WH Group), now privately held, purchased Smithfield Foods of the US in 2013 with funding from the Bank of China, Goldman Sachs and a Singapore sovereign wealth fund, Temasek Holdings (McMichael, 2020).

Internally, small-scale farming systems reflect a specificity of peasant culture in China, which is labour intensive and has land as a synonym for socio-productive autonomy. In the urban environment, the greater consumption of meat and dairy products has led the government to declare soy as an industrial crop rather than a food crop, leaving agricultural land for the planting of more productive and strategic grains - in this case, rice, wheat and corn, which within a policy of "grain security" or "self-sufficiency of cereals" should be produced nationally at a level of at least 95% of local consumption. As a result, imports of soybeans rose from 0.3 million tonnes in 1995 to 95 million tonnes in 2017 (Cui and Shoemaker, 2018[53]), and since then the figures have continued to rise.

4.3 Trade Practices

Meats

Technical and health requirements in particular affect the beef and pork sectors. Like countries that enjoy Foot-and-Mouth Disease (FMD)-free status without vaccination (USA, Canada, Australia, New Zealand, Japan, South Korea and Chile), China also imposes restrictions on the purchase of these products, due to issues related to this disease (Miranda et al., 2020).

In 2007, China banned the entry of Brazilian beef because it did not recognize, at the time, the different status of the Brazilian states related to foot-and-mouth disease (Moreira et al., 2008[54]). In 2012, China again imposed an embargo on Brazilian beef, alleging suspicion of Bovine Spongiform Encephalopathy (BSE, mad cow disease) in the state of Paraná. Beef products have also been the target of additional inspections after the United States banned

[53] Cui, K.; Shoemaker, S. P. A look at food security in China. Nature Science of Food, v.2, n.4, 2018.
[54] Moreira, A. R.; Silva, C., Costa, D. C. Práticas Ilegais de Comércio entre Brasil e China. Repository Univem (monograp). 2008.

the entry of Brazilian meats with abscesses[55] (Estadão, 2017). In July 2020, beef imports from six Brazilian meatpackers were suspended by China due to coronavirus[56].

In April 2004, China blocked a shipment of Brazilian soybeans because it contained fungicide-treated grains, which occurred again in 2008[57] (Miranda et al., 2020).

OECD estimates from 2018 show that while the average global per capita consumption of beef is almost 6.4 kg per year, this number stands at around 4 kg in China. In Brazil and the US, consumption is close to 25 kg, while in the EU the average exceeds 10 kg. Future increases in Chinese demand for beef and other types of animal protein may be partially met by Brazilian producers if common sanitary, phytosanitary and environmental standards can be agreed upon. The expectation is that China will put in place more obstacles and disputes are likely to arise over such requirements, as is the case in China's trade relations with developed countries. The lack of global harmonization of standards may lead to obstacles for Brazilian exports, with Mercosur being the first level of understanding to be reached[58] (Miranda et al., 2020).

Soybean - COFCO

At the end of July 2020, COFCO[59] announced that it intends to develop a more traceable and sustainable soybean supply chain in the Brazilian Cerrado, in partnership with the International Finance Corporation (IFC) of the World Bank Group.

IFC will support COFCO's subsidiary in Brazil in non-pre-financed actions with direct suppliers (farmers) and indirect suppliers (cooperatives or local/international traders)[60].

Soybean farms will be screened in Matopiba, the most vulnerable region of the Cerrado. COFCO will then strive to ensure that suppliers comply with the company's environmental and social criteria, and help farmers put in place more sustainable farming practices.

The screening process will include the use of satellite images, geographic information and official data. The objective is to ensure that the farms are not located on indigenous lands, conservation units or embargoed areas, that do not use forced labour and are in accordance

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55 https://economia.estadao.com.br/noticias/geral,china-intensifica-inspecoes-de-carnebrasileira-apos-a-proibicao-dos-eua,70001876283

56 https://g1.globo.com/economia/agronegocios/noticia/2020/07/06/seis-frigorificos-do-brasil-tem-exportacoes-de-carne-suspensas-para-a-china-por-preocupacoes-com-a-covid-19.ghtml

57 https://jornalcana.com.br/ministro-considera-possivel-reverter-decisao-da-china-sobre-soja/ e https://exame.abril.com.br/economia/china-rejeita-novo-carregamento-de-soja-brasileirom0065341/

58 The alignment of Brazilian interests with those of its Mercosur partners is necessary for the expansion of trade agreements, given that the opening of markets within Mercosur depends on block negotiations.

59 https://www.cofcointernational.com/newsroom/cofco-and-world-bank-s-ifc-partner-for-more-sustainable-soy-in-brazil/

60 The focus of this project is on non-pre-financed suppliers because, in theory, pre-financed suppliers (those who receive payment in cash or in the form of inputs before harvest) already comply with such requirements.

with the Soy Moratorium. The project will establish land conversion profiles for individual farms and assess producer compliance with the Rural Environmental Registry (CAR). Agrosatélite, a company specialized in remote sensing, will be COFCO's technical partner and will provide the satellite images.

According to the company, the expectation is to cover 85% of COFCO's direct suppliers in Matopiba by 2021, and the entire region by 2023.

COFCO's sustainability policies for its soybean suppliers[61]

Main points

- COFCO expects all soybean suppliers to comply with the Supplier Code of Conduct *(see below*)
- Pre-financed soybean suppliers in the Cerrado and Amazon biomes of Brazil must comply with additional specific requirements (set forth in this document)
- The supplier's performance in regard to this policy will be assessed

Scope

- This Sustainable Soy Supply Policy is applicable to soybean suppliers that produce in Brazil with which COFCO has a direct pre-financing contract and whose production areas are located in environmentally sensitive areas within the Brazilian Amazon and Cerrado

Policy statements

The suppliers who fall within the scope of this Policy must meet the following conditions:

- Comply with all applicable laws and regulations, including registration in the Brazilian Rural Environmental Registry (CAR)
- Respect the mapping of High Conservation Value areas: the soybeans must come from unconverted land (from HCV areas to other land use categories) and abide by national laws
- In the Amazon Biome, suppliers will respect the Soy Moratorium and will not source from deforested areas after July 2008

[61] This is a summary of the main points of the Sustainable Soy Sourcing Policy, the original document, February 13, 2019, is on https://www.cofcointernational.com/media/1330/sustainable-soy-sourcing-policy.pdf

- Respect the lands of Indigenous Peoples, as well as the rights, culture and aspirations of these peoples, avoiding and offsetting possible impacts on the communities
- Be absent from the government-issued Slave Labour List (Employers Register)
- Not be included in the list of embargoed areas issued by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA)
- Implement a no-burn policy applicable to all land-clearing activities

Implementation

COFCO will develop clear procedures to assess supplier performance against this policy and reserves the right to remove non-compliant suppliers. Potential cases of non-compliance may be reported to the COFCO International Integrity Hotline (cofcointernational.ethicspoint.com).

General Principles for all COFCO International Suppliers[62]

Business ethics and compliance

- Comply with applicable laws and regulations and conduct business with integrity

- Not practice or tolerate any form of corruption, extortion or embezzlement

- Avoid relationships with COFCO employees who represent a conflict of interest

Human and labour Rights

- Protect the human rights of its employees, as set forth in the eight basic principles of the International Labour Organization

- Grant employees the right to associate, organize and negotiate collectively

- Not tolerate child labour, slavery, forced or compulsory labour, people trafficking or any form of discrimination or harassment

- Provide employees' pay, including minimum wage, overtime, working hours and conditions in accordance with applicable laws and regulations

Occupational Health and Safety

[62] This is a summary of the main points of the Sustainable Soy Sourcing Policy, the original document, February 13, 2019, is on https://www.cofcointernational.com/media/1329/supplier-code-of-conduct.pdf

- Provide a safe and healthy working environment for all employees, migrant and seasonal workers. As a minimum, provide drinking water, access to electricity, emergency health care, personal protective equipment, adequate sanitary facilities, fire safety and machinery protection

Environmental management

- Commit to compliance with environmental laws inherent to business activity

- Use renewable fuel energy and reduce greenhouse gas emissions

- Use water efficiently, minimizing withdrawal, preventing pollution, preventing adverse downstream impact on communities and the ecosystem

Supply chain management

- Maintain a sound supply chain management and ensure that sub-suppliers understand and comply with the principles set forth in this Code

Additional principles for suppliers of agricultural commodities

- Use environmental practices that avoid deforestation and protect against the conversion of natural and critical habitats leading to a loss of biodiversity

- Apply best agricultural practices to increase soil fertility and prevent erosion and

- Use agrochemicals consistent with good agricultural practices and based on the needs of the crop

- Adhere to responsible governance of land tenure and respect the land rights of local and indigenous communities

- Obtain Free, Prior and Informed Consent (FPIC) from indigenous and local communities for the use of traditional lands before the development of the agricultural project

- Whenever possible, provide traceability of the commodity supply chain

5. Voluntary initiatives

Voluntary commitments and/or agreements aim at promoting environmentally sustainable and socially-just practices in production chains. Such instruments depend on a consensus

among governments, civil society organizations, companies, producers and other players of the sector, who establish principles and rules that can be adopted throughout the chains[63].

They are developed by a non-governmental entity (companies and/or NGOs) and, therefore, differ from mandatory regulations and guidelines issued by a public authority. Despite voluntary application, implementation is controlled by procedures - usually certifications - which aim to ensure compliance with the rules. Dozens of initiatives concern the soybean sector (Kusumaningtyas and van Gelder, 2019[64]). In addition, organic certification standards (IFOAM), fair trade (FLO) and non-GMO (Cert-ID) can be applied to this sector.

At the international level, the best-known standards are RTRS (Round Table on Responsible Soy) and Proterra. These have criteria and indicators of environmental preservation and social demands that incorporate the assessment and guarantee the correct enforcement of the standards, with annual controls carried out by accredited third-party agencies. Some indicators are considered as "non-essential", which allows producers to get certification without being fully compatible with the requirements of the standard.

In this sense, it is worth to stress that efforts towards transparency in highly complex supply chains make certain attributes more visible while obscuring others, reflecting unbalanced power dynamics. The limited role of state actors, together with the increased dependence on voluntary standards and commitments by private companies, underscores the prominent role played by intermediaries, often from civil society (Gardner et al., 2019[65]). The accountability framework initiative (https://accountability-framework.org/) is an example of coalition that provides opportunities of aligned definitions, principles and guidance for credible and transparent ethical supply chains.

Moreover, the embeddedness of social relations in the supply chain can help to understand the existence and the potential effectiveness of sustainability initiatives. Country-to-country trade patters can be affected by geographic proximity, ethnic networks, colonial linkages and common language, governance regimes, the capacity to enforce contracts and, also, by the

[63] The Soy Moratorium and the Amazon beef agreement (TAC) are used as criteria for importing Brazilian products, as can be seen in the sustainability policies of the companies mentioned in item 5.2 of this paper. However, they will not be specifically addressed since the management of both takes place primarily at a local level, through agreements made between local players (although traders and a good part of NGOs are transnational, it is their representatives in Brazil who currently sit at the negotiating table, with Brazilian public agents - ministries and prosecution offices). It can be said, therefore, that these mechanisms are quite subject to the games of interest of local stakeholders and are not aligned with the scope of this work since such are mainly focused on the presentation of foreign logic on the subject.

[64] Kusumaningtyas R., van Gelder J. W. *Setting the bar for deforestation-free soy in Europe*. *A benchmark to assess the suitability of voluntary standard systems*. Profundo. 2018. 38 p.

65 Gardner, T. A. et al. Transparency and sustainability in global commodity supply chains. *World Development*, v.121, pp. 163-177, 2019. https://doi.org/10.1016/j.worlddev.2018.05.025.

stickiness (stable and consistent commercial relationships between companies and regions) of a supply chain (Reis et al., 2020[66]).

5.1 Main sustainability standards and international certifications

Compared to other agricultural products, certified soybean areas are the lowest in relative terms (Tayleur et al., 2017[67]; Willer et al., 2019[68]). While most of the crops considered "sensitive" - cocoa, coffee, sugar or palm oil - have certified areas between 6% and 25%, certified soybeans represent only 1.5% to 3% of all soybean crops worldwide. It is estimated that only 13% of the soy used in Europe in 2017 can be considered "deforestation free". Soy also stands out for the decline of certified areas (-6% between 2013 and 2017), while the number for other agricultural crops has grown: + 26% for palm oil, + 115% for cocoa, between 2013 and 2017 (Willer et al., 2019). The most widely used standards around the world are RTRS and ProTerra.

The low global demand for certified soy is one of the reasons for the small volume of certified soy production (Willer et al., 2019) - about 3.5 million tons of certified soy per year by ProTerra, in the last 10 years, 86% of which derive from Brazil. According to agents involved in certification schemes, this occurs because the soy market's consuming side (importers, feed and food companies, retailer chains) does not demand certified soy and does not pay a "premium" (extra price) considered to be higher enough for the certified product, reducing the interest of the producing side in adhering to it. The existence of other efforts to mitigate deforestation linked to soy plantation, as the Soy Moratorium in Brazil, would make certification schemes less necessary in this case, competing with it. RTRS-certified soybean areas increased from 2011 to 2018 but registered a decrease of almost 30% from 2018 to 2019; the RTRS production volume is around 4 million tons, just over 1% of global soy production (RTRS, 2020[69]). Brazil represents 82% of the RTRS-certified areas in the world but only 2% to 3% of the area planted with soybeans in the country is certified. European companies account for 85-90% of the demand for certified soy (RTRS, 2020[51]).

Round Table on Responsible Soy - RTRS

RTRS is an international non-profit organization that has among its members representatives of the soybean chain and civil society from around the world. The initiative,

[66] Reis, T. N. P. et al. Understanding the Stickiness of Commodity Supply Chains Is Key to Improving Their Sustainability. One Earth, v.3-1, July 2020, pp. 100-115. https://doi.org/10.1016/j.oneear.2020.06.012.
[67] Tayleur C., Balmford A., Buchanan G. M., Butchart S. H. M., Ducharme H., Green R. E., Milder J. C., Sanderson F. J., Thomas D. H. L., Vickery J., Phalan B. (2017). Global Coverage of Agricultural Sustainability Standards, and Their Role in Conserving Biodiversity. *Conservation Letters,* Vol. 10*,* n° 5, pp. 610-618.
[68] Willer H., Sampson G., Voora V., Dang D., Lernoud J. (2019). *The State of Sustainable Markets 2019- Statistics and Emerging Trends*. Geneva: ITC. 72 p.
[69]RTRS/Brazil interview with the author, February 2020.

originally launched by WWF in 2004, was formalized in 2006 to establish a certification standard for "responsible" soy. The Standard for Responsible Soy Production - Version 3.1[70] was approved on June 1, 2017 and addresses five fundamental principles: respect for legality and good business practices; responsible work conditions; responsible relations with communities; environmental responsibility; and good agricultural practices.

ProTerra

The ProTerra Foundation is a non-profit organization created in the Netherlands in 2012. Version 4.1 of the ProTerra standard[71] was published in September 2019 and is divided into 10 principles that apply to all agri-food supply chains. The principles are: compliance with the law, international conventions and the ProTerra standard; human rights and responsible labour policies and practices; responsible relations with workers and local people; biodiversity conservation, environmental management and efficient environmental services; no use of genetically-modified organisms (GMOs); pollution and waste management; water management; greenhouse gases and energy management; adoption of good agricultural practices; traceability and chain of custody.

5.2 Corporate sustainability initiatives

Studies point to the gap between the deforestation-free commitments assumed by trading companies and continuity in the deforestation dynamics of the Cerrado region (Garrett et al., 2019; zu Ermgassen et al., 2020). The companies' implementation dates for the commitments are imprecise or non-existent, and the implementation of multiple commitments lacks transparency and control. Several suppliers of large companies do not follow the agreed guidelines and are often required to pay fines for illegal practices without being excluded from the supply chains of large groups (zu Ermgassen et al., 2020).

Neverheless, initiatives promoting socio-environmental protection are continuing to emerge. Archer Daniels Midland (ADM), Bunge, Cargill, COFCO International, Glencore Agriculture and Louis Dreyfus Company (LDC) launched together the Soft Commodities Forum (SCF)[72], a platform created within the World Business Council for Sustainable Development (WBCSD). The goal is to disseminate, through biannual reports, general and company-specific data about soybean production/supply in the Cerrado region in order to verify that the soybean sold does not derive from areas of native vegetation recently converted for

[70] Standard for Responsible Soy Production - Version 3.1 https://responsiblesoy.org/wp-content/uploads/2019/08/RTRS Standard Responsible Soy production V3.1 PORT-LOW.pdf (full document, with all the criteria described)

[71] https://www.proterrafoundation.org/wp-content/uploads/2019/11/ProTerra-Standard-V4.1_PT.pdf (full document, with all the criteria described)

[72] https://www.wbcsd.org/Programs/Food-and-Nature/Food-Land-Use/Soft-Commodities-Forum

agricultural crops. The focus is a set of 25 municipalities with high deforestation risk in the Cerrado biome and the Matopiba and Mato Grosso regions. Two editions have already been published, in June[73] and December[74] of 2019, in collaboration with ProForest and the Cerrado Working Group.

Leading US- and EU-based trading companies, which supply the Brazilian market, individually adopt the following social and environmental initiatives/policies:

ADM

ADM pledged in 2015 to work toward a soybean supply chain free from deforestation and human exploitation. A traceability project began in Matopiba in 2018, with satellite images of the farms (polygons), and expanded into other regions later. ADM requires registration in the CAR for supplier pre-financing. Since 2019, supply contracts with Brazil have included a clause prohibiting exploitation and violation of human rights. The producers receive training documents so they can conform to the company's policies on human rights and deforestation.

No-Deforestation and No-Exploitation Policy / Soy Progress Report (2019)
https://assets.adm.com/Sustainability/2019-Reports/2019-Soy-Progress-Report.pdf

Bunge

One of Bunge's commitments is to gradually reduce any case of deforestation in its grain and oilseed supply chains (target supply free from deforestation between 2020 and 2025). Bunge supports the soy moratorium in the Amazon and implemented a satellite tracking and surveillance system in 2017 that enabled it to control 91% of its direct supply from Brazilian soybean farms in October 2019.

Commitment to Sustainable Value Chains: Grains & Oilseeds (November 2018):
https://www.bunge.com/sites/default/files/sustainablevaluechains.go.11.18_0.pdf

Progress report 2019:
https://www.bunge.com/sites/default/files/non_deforestation_progress_report_october_2019_update.pdf

Cargill

Cargill is committed to working towards sustainability and transparency in the soybean chain in Latin America, conserving ecosystems that go beyond forests (Cerrado, Gran Chaco and

[73] https://www.wbcsd.org/Programs/Food-Land-Water/Food-Land-Use/Soft-Commodities-Forum/News/members-publish-first-common-reports-on-soy-supply-chains
[74] https://docs.wbcsd.org/2019/12/WBCSD_Soft_Commodities_Forum_progress_report.pdf

Llanos). Its policy is based on the Soy Toolkit developed by ProForest. The company claims to suspend any supplier that violates embargoed or protected areas or appears on government lists related to forced labour.

Sustainable soy policy originating from Latin America (June 2019)
https://www.cargill.com/doc/1432136544508/cargill-policy-on-south-american-soy.pdf

Action plan: https://www.cargill.com/doc/1432142481523/soy-action-plan.pdf

Dreyfus Company

LDC, as a member of the Tropical Forest Alliance, is committed to eliminating deforestation from its supply chain and conserving high ecological value biomes, such as the Cerrado region, without however assigning dates. The company is committed to working with producers, supporting the moratorium and the Cerrado Working Group. It created a preferential financing line for producers who expand production over pasture or degraded areas; environmental criteria are linked to the funding, such as the condition that native vegetation that could be legally felled is preserved. It upholds human and labour rights, as well as no corruption. Fundamental ILO conventions must be respected.

Soy Sustainability Policy: https://www.ldc.com/stories-insights/new-soy-sustainability-policy/

5.3 Government level

At a national level, some countries have discussed strategies and legal ways to forbid the import of agricultural products resulting from deforestation. The extent to which these initiatives have progressed is quite varied, and the entities involved are usually technical governmental bodies, civil society organizations and companies (sometimes political leaders are at the forefront). Below are a few recent examples, according to information obtained through a telephone conversation with a representative of the NGO Mighty Earth in the US:

France: Within the context of the National Strategy to Combat Imported Deforestation (*Stratégie nationale de lutte contre la déforestation importée* - SNDI), which aims to put an end, by 2030, to imports of forest or agricultural products that contribute to deforestation, France has set up a technical group to assess strategies that cover various sectors in various countries. In Brazil, the focus is on soy (also under study in the Argentine Chaco region). Norway, England and Switzerland are watching the mechanism under discussion in France closely so as to possibly adopt it in the future.

The European Union: An effort is underway to pass a law banning the import of all agricultural products deriving from deforestation; lobbying by NGOs to take the matter to the decision-makers.

Germany: The country is studying a law similar to the France's "duty of surveillance" law. In government, there are ministries that are in favour and others that are against; the same goes for companies. A German think tank leads the discussions.

United States: At the national level, there is a law under discussion to ban imports linked to deforestation; it is not very relevant to soybeans and Brazilian meat because the United States imports very little of these products. The man in charge is Hawaiian Senator Brian Schatz.

United Kingdom: the UK Global Resource Initiative (GRI), with a due diligence law under discussion.

In the meantime, there is a bill to reduce the risk of deforestation linked to agricultural products in the state of California. This law was put to a vote last year and lost by one vote; it will probably pass on the next vote. In the state of New York, a law similar to the Californian one is under discussion, with the state government leading the way.

6. Concluding remarks

This work aimed to identify how social and environmental criteria have been addressed in international trade relations of agricultural products, with emphasis on the largest import markets of Brazilian grain and beef (European Union and China), in order to provide a first stocktaking and overview on the topic. The study is based mainly on the analysis of official documents, with the support of bibliographical materials and three informal interviews.

It can be seen that international trade, previously seen as a potential driver of damage to the environment and to labour relations, has increasingly been considered from an opposite standpoint, and demonstrates potential to promote improvements in working conditions and environmental preservation. Nevertheless, the results of this development are yet to be assessed, particularly in view of the gap that often exists between discourse and practise. This gap is being reinforced by the fact that the measures described here cannot, by themselves or in an individualized manner, respond to the challenges they aim to address; rather, at this stage, a complementarity set of actions (among public and private actors, in national and international levels) is required, with attention to conflicting or competing tools that risk to disengage adhesion or participation.

Bilateral or multilateral trade negotiations do not create new environmental or labour standards but incorporate reference standards based on internationally recognised conventions. The World Trade Organisation's stance on environmental and social issues is categorical: it does not regulate these issues and only endorses agreements created in other spheres (multilateral environmental agreements and ILO conventions); on sanitary, phytosanitary and other issues that can act as non-tariff barriers, the WTO adheres to the standards created in the respective relevant international bodies, such as the Codex Alimentarium and the International Organisation for Animal Health (OIE).

In the European Union, environment and human/employee rights are topics incorporated since 2011 in the new generation of trade agreements through the trade and sustainability chapters. The EU-Mercosur Agreement is an example of a new generation agreement and the one with the greatest potential to affect Brazilian agricultural exports in the short term. The agreement does not create new sanitary and phytosanitary criteria in that sense, but demonstrate some of the already remaining differences between the parties as relates environmental and social criteria, thus increasing potential sensitivities and frictions. Experts and civil society in general perceive the Agreement as environmentally fragile, unable to stand up to European concerns (and even standards). Commitments made in the Paris Agreement towards fighting climate change are reaffirmed, however, there are no punitive measures attached for non-compliance with these clauses. From a social perspective, the ILO's support for fundamental labour principles provides solid parameters for trade agreements concerned with working conditions, although these agreements do not go beyond the subject.

Also, China, the largest importer of Brazilian agricultural products in volume, has recently increased its commitment to social and environmental sustainability and, above all, to food safety and human health, establishing stricter criteria for the import of agricultural products (including the most active state-owned soybean market in Brazil, COFCO).

Responding to pressure from consumers and other different social players, US and European multinationals active in soy production/marketing in Brazil have become more and more committed to voluntary grain certification schemes (such as RTRS and ProTerra). Such movements are usually headed by non-governmental environmental organizations, but depend on agreements with the private sector (trading companies, retail chains, associations of food and feed producers, among others) and, in some cases, with governments, to create any kind of impact.

Strategies that condition trade interests to legal frameworks may prove to be productive without losing sight on two basic points in international trade, which concern equal treatment

and non-discrimination applied between domestic and foreign products of trading partners (it means that standards cannot be stricter for one country than for another, nor can standards be stricter for one country's exporters than they are for domestic companies in importing countries). Therefore, the development of criteria in multi-stakeholder agreements, grounded in national law (easier to work with than broad multilateral/international standards), have been gaining ground in the search for strategies for more environmentally and socially sustainable agricultural production.

Annex 1. Trade Strategies of MAPA's International Relations department[75]

The Ministry of Agriculture, Livestock and Supply has established, for the period of 2019-2022, a target to increase the slice of Brazilian exports to 10% of global agricultural trade, according to MAPA Ordinance 1564/2017. To this end, MAPA confirms its commitment to support measures to promote animal welfare and monitor waste and contaminants in products of plant and animal origin. The institution claims to support and disseminate good practices that ensure animal health, plant hygiene and the quality and compliance needed for agricultural inputs and products. Social sustainability would guide the search for better conditions and remuneration for producers and rural workers, in accordance with ILO standards.

In 2017, commercial publicity actions supported over 200 products, such as: meat (beef, poultry, pork and fish), fruits, grains, beverages, cereals, sweets, Amazonian products, ingredients and pet products, generating an expectation of new business of US$ 280 million.

In order to collaborate with the protection of interests of Brazilian producers, agricultural attachés[76] are permanently based in strategic partner countries. This is a group of qualified professionals who work in Brazilian diplomatic missions abroad. The agricultural attachés, chosen through a merit-based selection process by MAPA and MRE, are in direct contact with foreign authorities and participate in bilateral and multilateral negotiations, as well as in the solution of trade setbacks in the sector's exports.

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[75] Extracted and adapted from: SILVA, Odilson Luiz Ribeiro. SRI/MAPA Agribusiness Department of International Relations: supporting the international insertion and continuous transformation of the planet's largest tropical agriculture. Embrapa, s/d: https://www.embrapa.br/olhares-para-2030/artigo/-/asset_publisher/SNN1QE9zUPS2/content/odilson-luiz-ribeiro-e-silva?redirect=%2Folhares-para-2030%2Fartigo&inheritRedirect=true

[76] In December 2019, Brazil had agricultural attachés in 19 countries: South Africa, Saudi Arabia, Colombia, United States, European Union, Morocco, Indonesia, Thailand, Egypt, Mexico, Japan, China, Russia, South Korea, Canada, WTO/Geneva, Argentina, India and Vietnam. (Source: http://enagro.agricultura.gov.br/noticias/candidatos-a-cargo-de-adido-agricola-participam-de-curso-de-preparacao-em-brasilia)

Following the guidelines of the federal government, the Ministry of Agriculture came up with two institutional responses to streamline international negotiation processes and consolidate the image of Brazilian agriculture abroad. The "*Strategy for Opening, Expansion and Promotion in the International Market of Brazilian Agribusiness 2019-2022*" intends to strengthen the presence of the Brazilian agribusiness sector in the global scenario based on a foreign sales boost, diversification of exported products, adding value and attracting foreign investments. The "*Better Brazilian Agro Plan*," in turn, focuses on consolidating the image and making foreign consumers more aware of Brazilian agricultural products, focusing on aspects such as health, safety, quality and differentiated identity of Brazilian products, social and environmental sustainability, fair labor relations and ethical and animal welfare principles.

MAPA's International Relations Department works with the public and private sectors to anticipate the barriers that may be imposed on free trade in agricultural goods. It participates in negotiations and discussions on certification issues, setting fair international standards and recognizing the quality differentials of Brazilian products.

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