

**Zero-deforestation requirements for agroindustrial
products in market access**
Analysis of conformity of the MCS exports

Paper prepared for GPPS
Final report

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1. Introduction

The MERCOSUR (MCS) agri-food sector has the opportunity to promote an economic, social and environmental sustainable development, making responsible and efficient use of natural resources and biodiversity, actively incorporating local communities for a comprehensive development of all regional economies, thereby taking into account the needs of each of the productive links within a changing environment and improving food security, both at the regional level and internationally, since the world population curve has shown that food consumption grows at a faster rate than world population growth, and population projections show that food production will have to increase by more than 60% of current production to achieve the food targets set at the global level.

On the other hand, all MCS countries have signed various international commitments in line with the challenges described above, reaching the Paris Agreement and the commitment with the 2030 Agenda and its Sustainable Development Goals (SDG).

To promote such goals, this specific survey concerning zero-deforestation issues seeks to put into context at the global and regional level this commercial public – private requirement, determine its scope and then establish an effective communication and implementation strategy with concrete measures at the level of the Group of Producing Countries of the Southern Cone (GPPS, by its acronym in Spanish).

This paper is not the end, but rather a beginning to recognize the progress that has been made on this matter at MERCOSUR (MCS), to make it possible to generate strategies in accordance with commercial demands and synergies with other public and private initiatives with the ultimate goal of reliably communicating what is being done concerning deforestation and promoting specific actions to improve the results obtained.

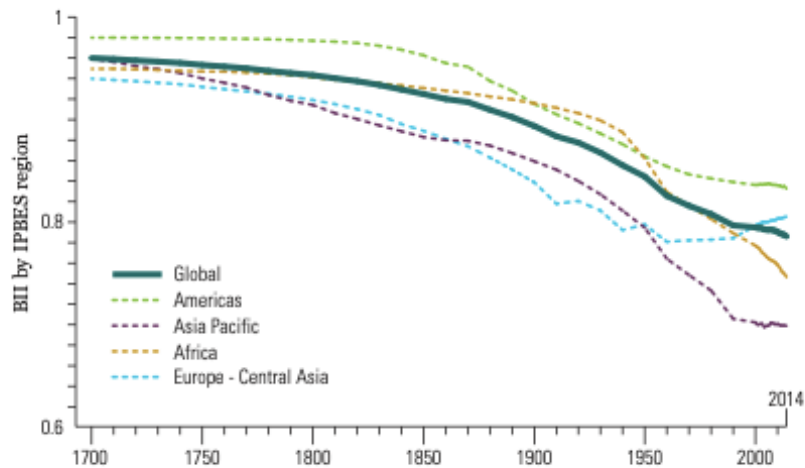
2. Brief description of the state of the forests – FAO 2020 Report ¹

- **Forests play two essential roles in the environmental balance** of the planet, above and beyond the ecosystem services they provide, including cultural and heritage value:
 - **They house most of the terrestrial biodiversity of the planet**, they are the habitat of 80% of amphibian species, 75% of bird species and 68% of mammal species. Around 60% of all vascular plants are found in tropical forests.

¹ FAO. (2020). The State of the World's Forests 2020

- According to the WWF's Biodiversity Intactness Index (BII), which estimates how much of the biodiversity that was originally present remains on the average in terrestrial ecological communities within a region, America is above the global average (79%), with the best position worldwide.

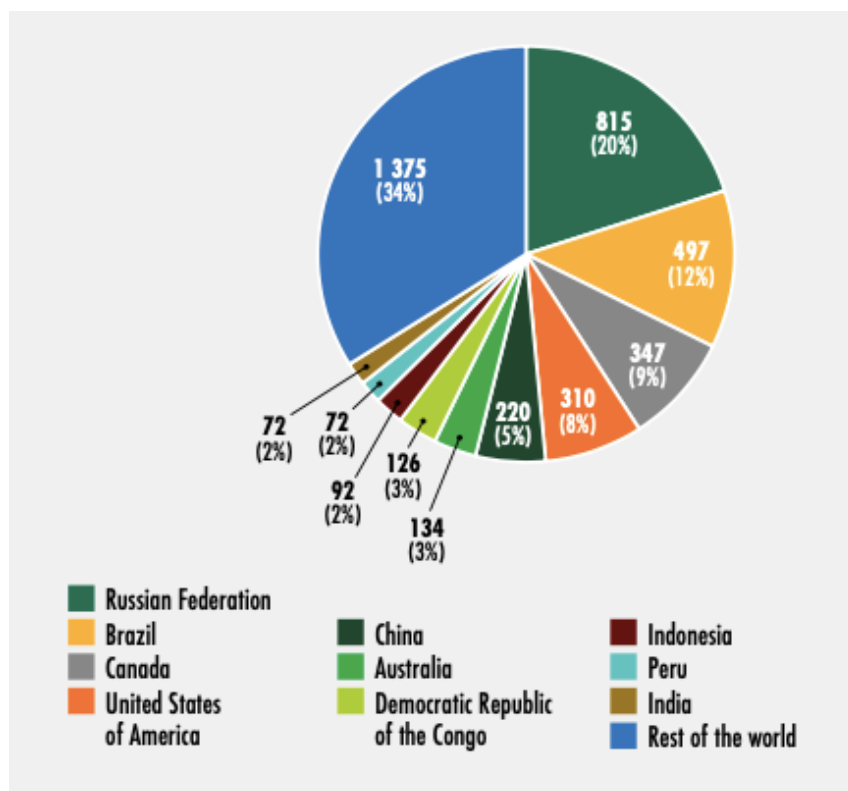
Chart 1: Biodiversity Intactness Index by region



Source: Living Planet Report 2020

- **They play a main role in carbon capture and storage. It is estimated that around 296 gigatons (Gt) of carbon as biomass are stored in the world's forests** (either above or below the ground). However, in the last 25 years there has been a reduction of 11.1 Gt of carbon in the forest biomass, which is equivalent to a fall of 442 million tons a year (1.6 Gt of carbon dioxide).
- **Forests cover 31% of the world's terrestrial surface, but they are not uniformly distributed on the planet.** Over half of the world's forests are found in only five countries (Brazil, Canada, China, the United States of America and the Russian Federation). Almost half of the forest surface (49%) remains relatively intact.

Chart 2: Global forest distribution – 10 countries with the largest forest area, 2020 – million hectares and % of the world's forests



Source: FAO, 2020

- **Over one third (34%) of the world's forests are primary forests**, which are defined as naturally regenerated forests of native species, where there are no visible indications of human activities and where the ecological processes are not significantly disturbed.
- **Deforestation and forest degradation continue to take place at alarming rates, which contributes significantly to the current loss of biodiversity.** Since 1990, it is estimated that some 420 million hectares of forest have been lost through conversion to other land uses, although the rate of deforestation has decreased over the past three decades. Between 2015 and 2020, the rate of deforestation was estimated at 10 million hectares a year, down from 16 million hectares per year in the 1990s. The area of primary forest worldwide has decreased by over 80 million hectares since 1990. Over 100 million hectares of forest are being affected by forest fires, infestations, sickness, invasive species, drought and adverse meteorological phenomena.

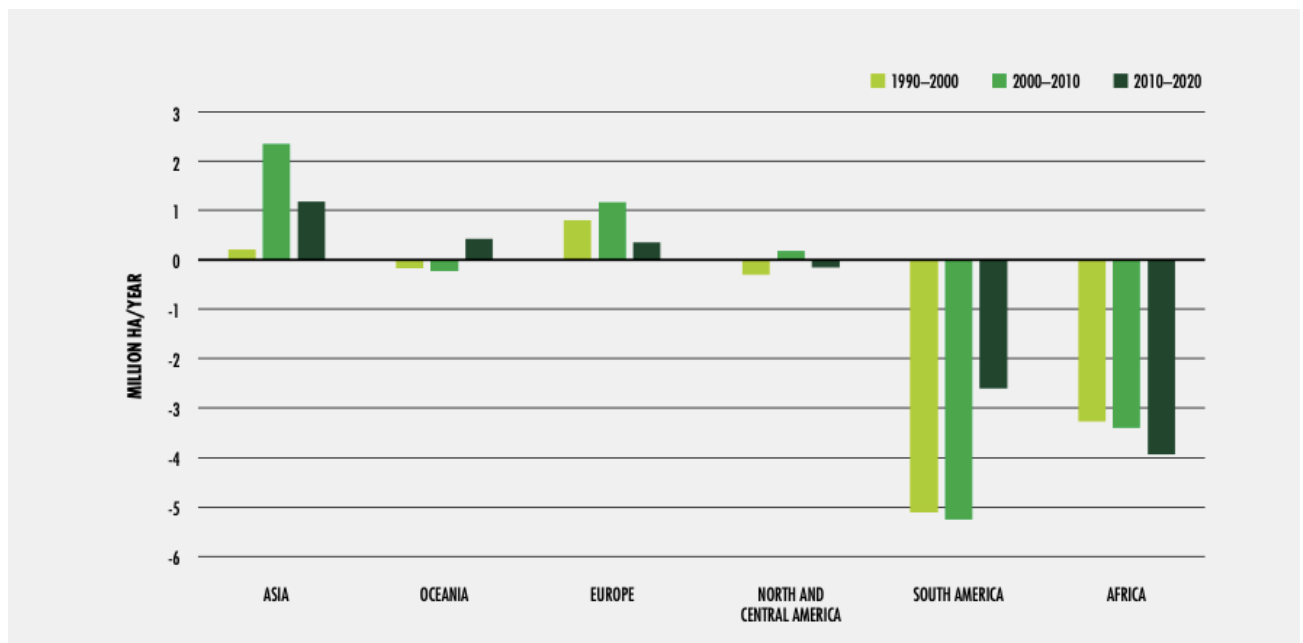
Table 1: Annual Rate of Forest Area Change

Period	Net change (million ha/year)	Net change rate (%/year)
1990–2000	–7.84	–0.19
2000–2010	–5.17	–0.13
2010–2020	–4.74	–0.06

Source: FAO, 2020.

- **Africa recorded the largest net loss of forest area in the 2010-2020 period, with a loss of 3.94 million hectares a year, followed by South America, with 2.60 million hectares a year. Since 1990, Africa has seen an increase in the net loss rate, while losses in South America have been significantly reduced, by over half since 2010 from the prior decade.**

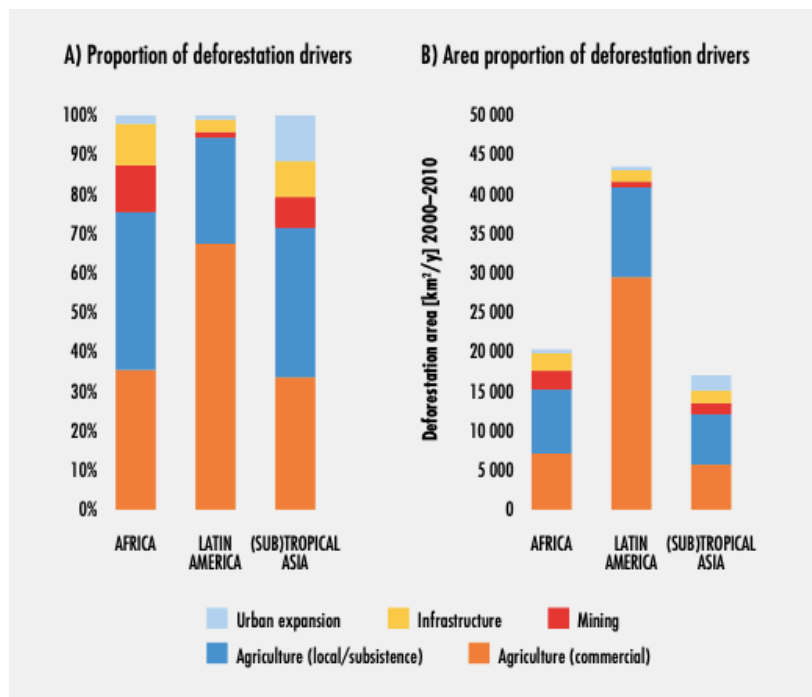
Chart 3: Net forest area by region, 1990 – 2020 (million hectares per year)



Source: FAO, 2020.

- **Agricultural expansion continues to be the main driver of deforestation and forest degradation and the associated loss of forest biodiversity.** Large-scale commercial agriculture (primarily cattle breeding and cultivation of soya bean and oil palm) accounted for 40 percent of tropical deforestation between 2000 and 2010, and local subsistence agriculture for another 33 percent.

Chart 4: Drivers of deforestation and forest degradation by region, 2000-2010



Source: FAO 2020

- The net loss of forest area fell from 7.8 million hectares a year in the 90s to 4.7 million hectares a year during the 2010-2020 period. Significant progress has been made in forest restoration, with South America accounting for the largest area, with 10.7 million hectares in the 2000-2019 period.

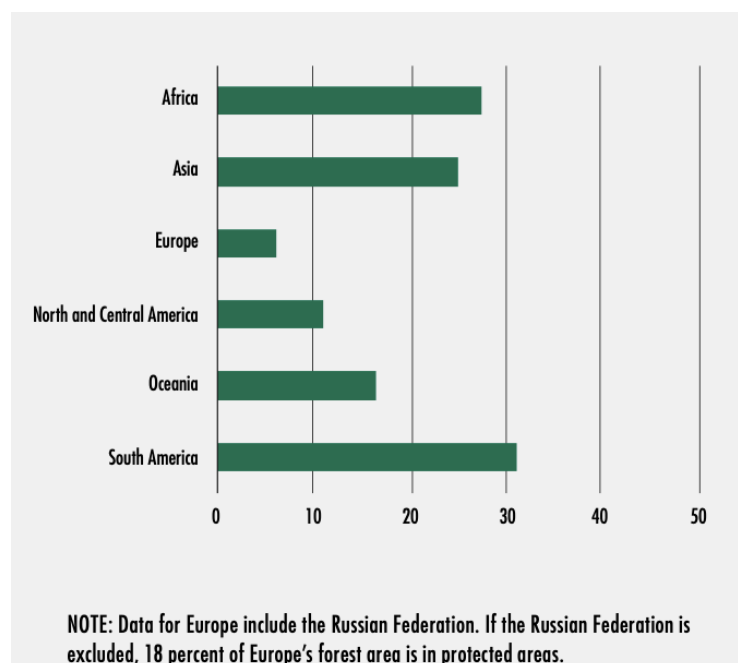
Chart 5: Increase in forest area through forest restoration, reforestation and afforestation activities 2000-2019 by region



Source: FAO 2020

- 18% of the world's forest area, the equivalent of more than 700 million hectares, fall within legally established protected areas such as national parks, conservation areas and game reserves (category I-IV protected areas). **The largest share of forest in protected areas is found in South America (31 percent) and the lowest in Europe (5%).**

Chart 6: Percentage of forests in legally protected areas, 2020



It is concluded that a large-scale forest restoration is required to meet the SDG and to prevent, stop and reverse the loss of biodiversity. In this sense the goal of the United Nations Decade on Ecosystem Restoration for 2021-2030, announced in 2019, is to speed up ecosystem restoration actions worldwide.

3. Deforestation and its causes

Deforestation is mentioned by the FAO as the second leading cause for climate change, after the burning of fossil fuel. Defined as the total loss of the natural forest and distinguished from **forest degradation**, which is attributed to partial removal, deforestation may be primarily due to 4 reasons, which in most cases are combined:

- a. **Agricultural expansion**
 - i. **Commercial**
 - ii. **Subsistence**
- b. **Expansion of transport and urban infrastructure**

c. Forest extraction

d. Mining

As regards agricultural expansion, the main crops that have historically contributed directly or indirectly to deforestation, according to information published by the EU, are soybean (19%), corn (11%), palm (8%), rice (6%) and sugar cane (5%). From the standpoint of the end use of these products with incorporated deforestation, these crops have different purposes. Estimates indicate that close to 50% of deforestation is incorporated in cattle and forage crops for beef production (49%), 8% in forage crops for pork and poultry products and that 43% is used for plant-based foods, fuel and fibers².

4. Key deforestation concepts: gross, net and incorporated

While **gross deforestation** is the quantity of natural forest cut down and is related to direct or indirect consumption, **net deforestation** compensates gross deforestation through man-made reforestation. In turn, deforestation may be classified in two categories, legal or illegal, according to whether or not it complies with applicable law. Illegal deforestation is the one that international efforts seek to remedy, since it alters the environmental balance of the planet.

The concept of **incorporated deforestation** is used to link deforestation to consumption and trade. Specifically, it is the deforestation associated with the production of a product or service in its country of origin. Such incorporated deforestation may be compared with other environmental externalities such as the carbon footprint or virtual water, in what is called the effect of transferred environmental footprints. Incorporated deforestation indicates how much deforestation is associated with a commodity and its by-products, but also with products consisting of different basic products, product categories, industries or even trade currents. Accordingly, a distinction begins to be made between the incorporated deforestation exchanged internationally (directly related to trade) and how much is consumed domestically.

Approximately 2/3 of the deforestation incorporated in agricultural products remains in the producing country, while 1/3 materializes in internationally traded agricultural products. Africa, South and Central America are the largest deforestation consumers (30% of the global quota each) associated with locally produced products and goods. The highest incorporated deforestation quota was exchanged through international trade in grown produce. The main deforestation importing regions are the EU27 (39%), East

² EU. (2013). The impact of EU consumption on deforestation: Comprehensive analysis of the impact of the EU consumption on deforestation. Technical Report - 2013 – 063. Final Report. ISBN 978-92-79-28926-2.

Asia (including China, 21%), Northern Africa and Western and Central Asia (16%), North America (9%) and Southern Asia (8%).

5. Response of the International Community to Deforestation

Given the need to protect and restore forests, the international community as a whole has implemented various strategies:

- a) **Declarations, principles, decisions, resolutions and other instruments that are not legally binding** reflecting political commitments focusing on forests, including the FAO Forest Instrument (2007) that establishes guidelines on forest governance worldwide, other decisions of the United Nations Forum on Forests (UNFF), actions proposed by the Intergovernmental Group on Forests (IGGF), the action proposed by the Intergovernmental Panel on Forests (IPF) of 1995-1997 and of the Intergovernmental Forum on Forests (FIB) of 1997 to 2000, the Forest Principles – United Nations Declaration for Sustainable Forest Management (1992), Chapter 11 of Agenda 21 on Combating Deforestation, the Amsterdam and New York Declaration, SDG/15 -Life of terrestrial ecosystems and the United Nations Decade for the Restoration of Ecosystems;
- b) **Conventions, agreements and other legally binding instruments** with important provisions relating to forests including the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention Against Desertification (UNCAD), the CITES on Trade in Endangered Species, the Ramsar on wetland protection, as well as legally binding agreements and other instruments with the potential to have an indirect influence on forests such as LRTAP on transboundary air pollution.
- c) **Research organizations and institutions based on treaties with important mandates and programs relating to forests or with the potential to affect forests**, including CIFOR – Center for International Forestry Research, FAO, ICRAF – World Agroforestry, OIMT which deals with tropical woods, World Bank, FAO GEF, the PFN Mechanism and the WTO.
- d) **International initiatives based on the performance of NGOs and other groups, including international certification schemes** such as FSC, Smartwood, PEFC, SFI and industry codes of conduct, such as the work of WBCSD and the Consumer Goods Forum.
- e) **Regional and global organizations, institutions, instruments, processes, initiatives and regional and global networks**, such as, for example, the Amazon cooperation ATCO in the Amazon region (Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Surinam and Venezuela), the African Forest Forum, Forest Europe and the Bonn Challenge.

- f) **Meeting points:** state clubs, learning and cooperation platforms, including REDD + associations, round tables, IBPES/FAO – The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services.

As regards deforestation reduction targets specifically, the following may be noted in brief:

Convention on Biological Diversity – AICHI

- Date: Earth Summit, Río de Janeiro 1992
- Parties: 196 parties/198 signatories (All MCS countries have ratified it).
- Goal: Strategic Plan – Strategic objective B. To reduce direct pressures on biological diversity and promote sustainable use - Goal 5 by 2020, the rate of loss of all natural habitats, including forests, will have been reduced to close to zero, and degradation and fragmentation will have been significantly reduced.

Bonn Challenge

- Date: UICN 2011
- Parties: global effort with regional/national promises.
- Goal: to lead to the restoration of 150 million hectares of degraded and deforested forests by 2020, and 350 million hectares by 2030. The goal for 2020 was established in Bonn in 2011, where the challenge was launched, and was subsequently endorsed and expanded for 2030 by the New York Declaration on Forests of the 2014 United Nations Climate Summit.

New York Declaration on Forests

- Date: UN Climate Summit – September 2014
- Parties: it is supported by 38 national governments (the European Union, the United States, Central America and African Countries – Mercosur countries do not participate), 20 subnational governments (including Acre/Amapa/Amazonas in Brazil among others in Peru, Mexico and Indonesia, Nigeria and Spain), of more than 50 of the largest companies worldwide and over 50 influential organizations of civil society and indigenous populations.
- Goal: to reduce to half the annual loss of natural forests by 2020 and endeavor to reach zero deforestation by 2030. The declaration also makes a call for the recovery of an area of forest and cultivated land larger than India, in terms of geographic area. Reaching these goals would entail reducing carbon emissions by between 4,500 and 8,800 million tons a year, which is equivalent to eliminating the current emissions of the United States.

NYDF 2020 Assessment

The latest NYDF Progress Assessment confirms that the targets established for 2020 were not achieved. They include Goal 2 to eliminate deforestation from the production of agricultural commodities and General goal 1, to halve the rate of deforestation worldwide by 2020. It also warns of the low chances of achieving the 2030 goals of maintaining the low commitments and actual implementation by the parties.

Source: NYDF, Balancing forests and development - Addressing infrastructure and extractive industries, promoting sustainable livelihoods, November 2020.

Amsterdam Declaration

- Date: December 2015
- Parties: Denmark, France, Germany, the Netherlands and the United Kingdom, to which Italy and Norway were later added.
- Goal: to support the measures of the public and private sectors to eliminate deforestation from the supply chains. The Declaration calls on the private sector to adopt and apply non-deforestation commitments, on the EU to take political action and for public-private associations to achieve the goals proposed for 2020 and eliminate deforestation from the supply chains.
- *Other:* The Amsterdam Declarations Partnership (Amsterdam Declarations Association - that includes the Declaration on Deforestation and the Declaration on Sustainable Palm Oil) is headed by signatory governments and its purpose is to support existing processes, such as the Cocoa & Forests Initiative and the European Sustainable Palm Oil project, as well as the call to national round tables on commodities. To date, the implementation strategy has focused on cocoa, palm oil and soybean.

ODS 15 – Life of Terrestrial Ecosystems

- 15.1 By 2020, safeguard the preservation, restoration and sustainable use of terrestrial ecosystems and inland drinking water ecosystems and the services they provide, particularly forests, wetlands, mountains and arid areas, in accordance with the obligations undertaken under international agreements.
- 15.2 By 2020, promote the sustainable management of all types of forests, end deforestation, recover degraded forests and increase forestation and reforestation worldwide.

ODS 2020 Report – ODS 15.1/2

Forest loss continues to be high; despite growing efforts to manage them sustainably, the world forest surface continues to decrease, albeit at a slightly slower pace than in prior decades.

The annual deforestation rate between 2015 and 2020 is estimated at 10 million hectares, representing a reduction from the 12 million hectares between 2010 and 2015. The proportion of forest surface worldwide dropped from 31.9% in 2000 to 31.2% in 2020. This represents a net loss of almost 100 million hectares, owing primarily to agricultural expansion.

These lost forests mean the disappearance of the livelihood of rural communities, the increase of carbon emissions, the reduction of biodiversity and the degradation of soils.

While forest loss remains high, 2020 data show that the proportion of forests in protected areas and under long-term management plans, as well as certified forest areas, increased or remained stable worldwide and in most regions of the world. At present, of 4.06 billion hectares of forest, over half are under management plans. Moreover, the proportion of forests designed primarily to protect the soil and water has increased, particularly in the last decade.

Source: UN, Sustainable Development Goals Report 2020.

United Nations Strategic Plan for Forests 2017-2030

- **Date:** April 20, 2017 by resolution ECOSOC/ONU
- **Parties:** UN
- **Goal:** The strategic plan is based on 6 world forest goals and 26 related targets to be achieved no later than 2030.
 - World forest goal 1: Reverse the loss of forest cover worldwide through sustainable forest management, including protection, restoration, forestation and reforestation activities, and increase efforts to prevent forest degradation and contribute to the global effort of addressing climate change.
 - 1.1 Forest area is increased by 3% worldwide (2015 baseline).

UN Decade on Ecosystem restoration 2021 - 2030

- **Date:** March 1, 2019 – it will be officially launched on 6/05/2021
- **Parties:** UN – AG Declaration
- **Goal:** to massively increase the restoration of the degraded and destroyed environment to combat climate change and improve food security, water supply and biodiversity.
 - The United Nations Environment Program (UN Environment) and the United Nations Food and Agriculture Organization (FAO) will lead its implementation.
 - The Decade is designed to achieve existing targets defined by the Sustainable Development Goals, the Convention on Biological Diversity, the United Nations Convention to Combat Desertification and other world frameworks. It will also accelerate ongoing restoration efforts such as the Bonn Challenge or the New York Declaration
 - <https://www.decadeonrestoration.org/>

To conclude, the goal of all the initiatives listed above is to reduce the loss of forest cover process, promote the sustainable management of all types of forests and eliminate deforestation from supply chains worldwide, which is communicated as zero deforestation

6. Strategy of the main consumer markets

a. European Union

In its October 2008 Communication: “Addressing the challenges of deforestation and forest degradation to tackle climate change and biodiversity loss”, the European Commission showed that during the 1990-2008 period it imported from other regions 9 million ha. of deforestation incorporated in agricultural and livestock products. This represented almost 36% of all the deforestation incorporated in agricultural and livestock products sold between regions during that period. The report shows that the most decisive factor was the import of oilseed crops, primarily two crops, and their by-products, i.e., soy cake and soya (together, 82%) originated primarily in Brazil and Argentina, and oil palm (17%). Other important groups of agricultural products are stimulants such as coffee and cocoa (12%) and industrial crops such as rubber (6%). A study published by the EU in 2013 showed that the EU27 imported and consumed between 7% and 10% of world consumption of agricultural and livestock products associated with deforestation in the countries of origin. As a follow-up of the study published in 2013, the European Commission launched a study in 2016 to assess the viability of options to intensify the EU’s action against deforestation. Concurrently, the Commission launched a specific study on the environmental impact of palm oil consumption and on existing sustainability regulations, with a view to strengthening the available knowledge base. Accordingly, in July 2019, the European Commission adopted a Communication on the intensification of the EU’s action to protect the forests of the world. The Communication aims to protect and improve the health of existing forests, particularly primary forests, and to significantly increase sustainable and biodiverse forest cover worldwide. This communication sets five priorities:

1. To reduce the EU’s consumption footprint on earth and foster the consumption of products from deforestation-free supply chains in the EU;
2. To work in association with producing countries to reduce the pressures on forests and achieve “deforestation-proof” cooperation for the development of the EU;
3. To strengthen international cooperation to stop deforestation and forest degradation and foster forest restoration;
4. To re-direct finances to support more sustainable land use practices;

5. To support the availability and quality of information on forests and commodity supply chains, access to such information and to support research and innovation.

Annex I to the Communication proposes actions to be implemented by the European Commission to comply with these priorities, while annex II lists the actions recommended to national, regional and local EU authorities, the industry and civil society. The proposed actions also aim at creating a platform of multiple interested parties and an EU Observatory on forestation and forest degradation, explore possible legislative measures and strengthen the implementation of the EU's Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, focusing on the fight against illegal logging. Since 2003, action within the framework of the EU's FLEGT Action Plan has focused on the fight against illegal logging and the related trade, financing programs to improve forest governance and implementing the EU's Timber Regulations, which requires that operators selling wood and timber-based products on the EU market act with the required diligence to minimize the risk of importing illegally felled wood.

Last, in 2020, the EU launched its "Green Deal" with a view to reaching carbon neutrality in the European continent in 2050. With social inclusion, the Green Deal seeks to achieve an economic growth directly related to the efficient and sustainable use of resources. Four initiatives are established to such end:

1. Just Transition Mechanism (a financial fund to accompany this sustainable transition),
2. Circular Economy action plan (an initiative that takes into account the full life cycle of products with a view to lengthening the useful life of products, changing the form of consumption and of production within the EU),
3. EU Biodiversity Strategy for 2030 (an initiative that seeks to recover ecology, the environment and its diversity within the EU by 2030), and
4. Farm to fork (a specific strategy for the agricultural sector).

As regards the Biodiversity Strategy, the EU seeks, at the domestic level; a) to protect 30% of the EU soil, b) to protect 30% of water resources, and c) to restore degraded ecosystems. To achieve this last goal, it has set itself the objective of increasing organic production and landscapes that are rich in biodiversity resources, implementing pollinator protection programs, reducing the use of pesticides by 50%, restoring 25,000 km of riverbanks degraded by floods and reforesting 3 billion trees. All this will be done through a special 20 billion Euros (public + private) special fund.

Specifically, within the Farm to Fork strategy established as part of the goal of "achieving a sustainable food system", it has set the goal of reducing the environmental impact of the agricultural sector. This entails working on more efficient production systems and reducing dependence on inputs with a high

environmental impact, particularly high-emission and deforestation imports. It therefore establishes the need to have cradle-to-cradle traceability so as to prevent information fraud.

In the last amendment of the EU RED for renewable energy, the EU has not included palm oil as high indirect change in the use of the soil but has included soybean. Accordingly, a pilot test is being conducted on a mechanism for the certification of low-ILUC products.

During the September-December 2020 period, the EU conducted a public consultation to seek to minimize the EU's contribution to deforestation and forest degradation worldwide and to promote the consumption of products of deforestation-free supply chains in the EU. Both public and private agents worldwide participated therein. The consultation is currently being evaluated and the Commission is thus preparing proposed regulations for the second quarter of 2021.

Concurrently, the Committee on the Environment, Public Health and Food Safety of the European Parliament is working on draft regulations establishing the need for more ambitious measures to ensure that countries do not contribute to deforestation, with one salient goal: to ensure a high level of protection for natural forests and natural ecosystems, as well as the protection of any human rights that may be affected by the exploitation, extraction and production of commodities. One of its priorities is to reduce the UE's footprint associated with food production on the planet and foster community consumption of products with supply chains that are free from incorporated deforestation. In that regard, it establishes the obligation of carrying out due diligence at source, as one of the key pillars, recognizing the utility of this type of third-party audits to guarantee compliance with established legal requirements and other risks identified in the supply chain. This proposal also points out that third-party certification and labeling are not effective, by themselves, to prevent commodities and other products entailing risks to forests and ecosystems being sold on the EU domestic market. It believes that third-party certification may only be supplementary, but cannot replace the detailed mandatory due diligence procedures that companies are required to carry out, fostering transparency in their supply chains and ensuring their social and environmental responsibility, in accordance with the principle that "whoever contaminates pays", one of the basic pillars of the EU's environmental policy, established in article 191 of the Treaty on the Functioning of the European Union (TFEU).

It is thus clear that the goal of achieving zero deforestation traceable supply chains is a commitment assumed and maintained by the EU for more than a decade, which process seems to become stronger within the Green Deal – Farm to fork and that it will lead, in the short term, to proposed regulations at

community level applicable both to domestic and global supply chains seeking to sell their product within the European market. Each member state may therefore adopt regulations taking community regulations as a baseline.

b. France strategy

As a European leader in environmental matters, in November 2018, the French government adopted the strategy that seeks to end deforestation stemming from non-sustainable forest or agricultural products by 2030. France believes that European countries have a great responsibility in this matter, since one third of world deforestation is due to the consumption of agricultural products in the EU countries

Specifically, the French strategy consists of 17 measures:

- Creation of a national platform to fight against deforestation that includes companies, NGOs and government authorities, to support the application and monitoring of “zero deforestation” commitments of private players, particularly facilitating their traceability. It will make it possible to send alerts to companies in the event of risk of fraud or of risks in the goods they import, through an alert mechanism based on French import data from Customs and satellite monitoring of forest cover in supply areas. This platform will also have the mission of preparing a new “zero deforestation” certificate to assist consumers in their choice. In December 2020, the Ministry of Ecological Transition published a guide for distribution to all private players to ensure a zero-deforestation provision. While there is no certification that ensures zero-deforestation incorporated by product 100%, the guide seeks to prioritize the purchase of products by internationally recognized entities, such as RTRS or ProTerra soja. Priority is given in all cases to cradle to grave certified traceability.
- Integration of the “zero deforestation” goal into the plans of the agricultural sector established after the EGAlim.
- The State will have a “zero deforestation” public procurement policy by 2022, especially integrating such policy into the “exemplary management” inter-ministerial device.
- In the biofuels sector, in accordance with the new EU RED II, France will limit the incorporation of biofuels from raw materials with a strong indirect impact on deforestation (High iLUC) and will promote the supply of biofuels certified as low indirect change in the use of the soil, according to the criteria established by the European Commission, until their full elimination by 2030.
 - In 2019, France implemented the initiative “tax relating to the incorporation of biofuels” or “TIRIB”. It is a tax on the fuel consumed in France together with a reduction of such tax according to the proportion of eligible “renewable” biofuel included therein. In addition,

for crop-based biofuels, such as biofuel produced from soybean oil (PYME) and biodiesel produced from rapeseed oil (RME), there is currently a 7% limit to such reduction, in line with the 7% reduction established at RED I and under Renewable Energy Directive 2018/2001/EU (RED II).

- This tax with an incentive system was modified in December 2020, and it was established that, as from January 1, 2022, biofuel produced from soy oil would no longer be considered a “renewable” fuel for the purpose of the fuel tax reduction. This means that, regardless of how PYME is produced (i.e., whether it is produced sustainably or not), it will not benefit from the tax reduction. The reasons for this exclusion are given in the whereas clauses of the amendment as the goal of the French Government of reducing imports with a high deforestation risk, even though the EU defined soy-based biofuel as low-ILUC in the EU RED, showing a clear inconsistency between the provisions at community level and the French provisions. The same regulatory path is being followed in Denmark, and a proposed bill is already before the Senate in Italy.
- France will promote the adoption of an action plan to fight against imported deforestation that provides for the adoption of European regulations concerning the import of raw materials posing a risk to forests. The plan should also provide for the integration of respect for sustainable production criteria in EU negotiation mandates in connection with bilateral trade agreements.

c. The policy being developed in the United Kingdom

Driven by the huge pressure to show international leadership on climate issues as host of COP26 in 2021 and its actual exit from the European Union, the United Kingdom has begun to submit draft regulations providing that the companies based in the country will have to show that their products and supply lines are free from illegal deforestation. The proposed law would require that the large companies operating in the United Kingdom show where basic products such as cocoa, soybean, rubber and palm oil come from. Companies would be fined if they fail to carry out such audits at origin and to publish information on traceability and conformity with forest protection laws.

This announcement was the second step after the implementation of the Global Initiative Resources working group in 2019 with the aim of “turning the global supply chain green again”. Accordingly, in March 2020, such group published its recommendations. These are summarized in local and global measures:

Act at home:

- Publish a strategic plan on sustainable commodities by the fall of 2020 establishing actions to be taken by the government, companies, finance and other interested parties.
- Introduce a legally binding objective to end deforestation within the supply chains of agricultural and forest commodities in the United Kingdom as soon as possible, but no later than 2030, beginning with those commodities and byproducts that contribute most significantly to deforestation, before being applied to other supply chains.
- Introduce a mandatory due diligence obligation for companies and finance, strengthen and expand mandatory public hiring requirements and promote the corporate participation of the mass market, above and beyond leaders, including through a new sectorial sustainable food services plan.

Act globally:

- Make a global call to action on deforestation and sustainable supply chains in the period prior to COP26 to build long-term multilateral alliances for group action among governments, producers and consumers, companies, financial institutions, farmers, foresters, forest communities and indigenous peoples beginning with the development of shared road maps for agricultural and forest products in the biomass / landscapes with the largest shared risk and shared benefit for nature and persons.
- Mobilize global public and private funds to address deforestation and land use conversion and support the sustainable production and trade of agricultural and forest products.

In particular, as regards the recommendation to establish a zero-deforestation global supply chain, the British government has responded that it has charged the United Kingdom Joint Nature Conservation Committee with developing a high-level indicator, paving the way for its introduction. The first phase of this work is to be delivered in March 2021. The draft environmental act, which is currently being debated in Parliament, includes the power to set long-term environmental goals. To support the legislative proposal, the British government carried out a global open public consultation between August and October 2020 to determine “your opinion about the government introducing a new law designed to prevent forests and other important natural areas becoming agricultural land illegally.” Such consultation is currently being evaluated.

d. The “Clean Energy Revolution” in the US.

The takeover of the new US administration headed by Joe Biden in January 2021 entailed the return of the country to the international climate scene. Among the first orders signed by the President was the one bringing the US back into the Paris Agreement, one of the main campaign promises. As part of the

government platform, the president also undertook to implement the Clean Energy Revolution Plan. While it is quite similar to Rep. Alexandria Ocasio-Cortez' (D-NY) New Green Deal, the Clean Energy Revolution is less ambitious in its deadlines and has a lower budget. In short, the main goal of this plan is to reduce greenhouse gas emissions in the US to zero and to meet 10% of power demand in the country from clean, renewable and zero emission sources by 2050. The plan also requires the creation of millions of jobs to provide an employment guarantee for all Americans, together with access to nature, clean air and water, healthy food, a sustainable environment and community resilience. In this regard, the federal government undertakes, among other things, to restore ecosystems through land preservation, forestation and science-based projects, and to invest in sustainable agriculture. It is to be expected that the return of the US to multilateral environmental commitments similar to those adopted by the EU will strengthen deforestation requirements in the supply chains also in this market, which represents the fifth forest surface reservoir worldwide.

In particular, as regards soybean, in the US there is a public-private sector national conservation and sustainability system known as "The Sustainability Alliance". This system certifies and audits 95% of US soybean under the US Soy Sustainability Assurance Protocol (SSAP), and this soybean is therefore guaranteed in the EU as low deforestation risk.

To conclude, at the level of public standards, there is a clear intention of moving forward in the establishment of zero deforestation requirements in the supply chains of agroindustrial products due to the incorporated deforestation both at the public and the private level. At community level, the goal is to implement even this requirement at the global level. The control system would be based on compliance with domestic laws and binding and non-binding international commitments, coupled with a cradle- to target market traceability mechanism by product, with audits at destination and/or satellite images. This would make it possible to prevent environmental information fraud concerning deforestation.

7. Analysis of the cut-off dates in deforestation commitments

On the basis of all binding and non-binding deforestation commitments described in the previous chapters, it is important to keep in mind the baselines or cut-off dates used and on the basis of which commitments are they calculated. Below is a summary table of instruments that have a cut-off date.

<i>Instrument</i>	<i>Commitment/Requirement</i>	<i>Cut-off date</i>	<i>Remarks</i>
	2020 forest loss rate reduced to 50% or 100%	2011	It is a flexible framework adjusted

<i>AICHI – Strategic Plan</i>			to domestic circumstances
<i>Nueva York Declaration</i>	Reduce annual natural forest loss to half by 2020 and make efforts to reach zero deforestation by 2030.	2014	
<i>Forest Strategic Plan UN 2017-2030</i>	Forest Surface increases by 3% worldwide in 2030	2015	
<i>UE RED/RED II</i>	Protection of areas with high value for biodiversity, high carbon stocks and wetlands – High ILUC	January 1st, 2008	
<i>UE RED II</i>	Low ILUC	10 years prior to certification – movable base	Only the methodological presentation has been made, which is in the testing stage with pilot cases. Publication expected by mid- 2021.

To conclude, there is no unified criterion to determine cut-off dates or baselines, and, in most cases, they do not follow an objective one, but a merely discretionary one. Accordingly, this poses the need to force objective criteria in the establishment of cut-off dates, bearing in mind the development needs of less advanced countries, as well as the need to accompany the use of this restriction with green financing with a view to an environmental common good. This would make it possible to once again balance the principle of “common but differentiated responsibilities” originally stated in the UNFCCC.

8. Proposed measures to ensure a zero-deforestation supply chain

The close interdependence with the environment exercises direct pressure on primary agricultural systems at origin and puts under scrutiny by world public opinion downstream production activities, from importers to consumers. To successfully respond to this challenge, we need to rethink the current business model within a sustainable paradigm, from the environmental, social and economic aspects, that is verifiable by third parties and thereby satisfy public and private demands in the main consumer markets.

The following general measures are proposed specifically to comply with the requirements under development in the main markets concerning zero deforestation:

1. **Determine the local source of commodities.** To this end, we need to leverage on the huge progress and public availability reached by satellite images in recent years to monitor deforestation. We need to achieve certified traceability of all trade in agroindustrial products from an independent third party; this is currently the case for only a fraction of world trade in commodities.
2. **Assess the risks and opportunities related to forests within the environmental and the legal jurisdictional context.** Palm oil, sugar, soybean, beef and other basic products have been labeled worldwide as “forest risk products.” However, the risks associated with such products vary considerably, depending on where they are produced, and the players involved. Once the local origin of the commodities sold has been established, a detailed examination of deforestation rates in the local production area, using data for the smallest possible geographical area, such as the municipality, is the first risk assessment that may be made by any buyer of basic goods. Publicly available tools have been used, such as those of Global Forest Watch, to assess deforestation risks in the production of commodities, bearing in mind the differing quality of deforestation information for different regions of the world. Assessment of deforestation rates is only a starting point for a comprehensive due diligence in the supply of and investment in commodities.

Secondly the concept of zero deforestation at the jurisdictional level needs to be clarified with the local legal context. Comparisons of deforestation risks in different contexts pose challenges that will only be resolved with the best monitoring technologies. Definitions of forest aspects and legality are specific to each context and ultimately determine the legality or illegality of natural deforestation. A balance needs to be found between the general concept of zero deforestation and local legal socio-political issues.

3. **Encourage jurisdictions in their path towards deforestation-free production.** Greater transparency and reliability in forest risk assessments will entail identifying high-risk places and players and, conversely, opportunities for legal and deforestation-free supply. At the same time, greater transparency could offer committed national and local governments an opportunity to promote on-going efforts to improve forest governance through communication of progress in their regional planning and land use processes. In time, consolidation and exchange of critical information on the supply chain and land use with independent third-party observers will help monitor progress and take effective measures.
4. **Address deforestation as a public – private initiative.** Deforestation commitments are not only public. Deforestation in the supply chains of a company exposes it to physical, operational and reputation risks which could affect profits and cash flow. Accordingly, deforestation is seen as a “systemic risk” that could have a high financial impact on companies. That is why many companies have already undertaken zero deforestation commitments, although few validly report having

reached the proposed goals, or in other cases commitments differ according to countries, despite the fact that they are multinational companies. Advantage should be taken of this public-private synergy to prevent deforestation. Advantage should be taken of this public-private synergy to avoid deforestation displacement, in order to achieve zero incorporated deforestation global supply chains.

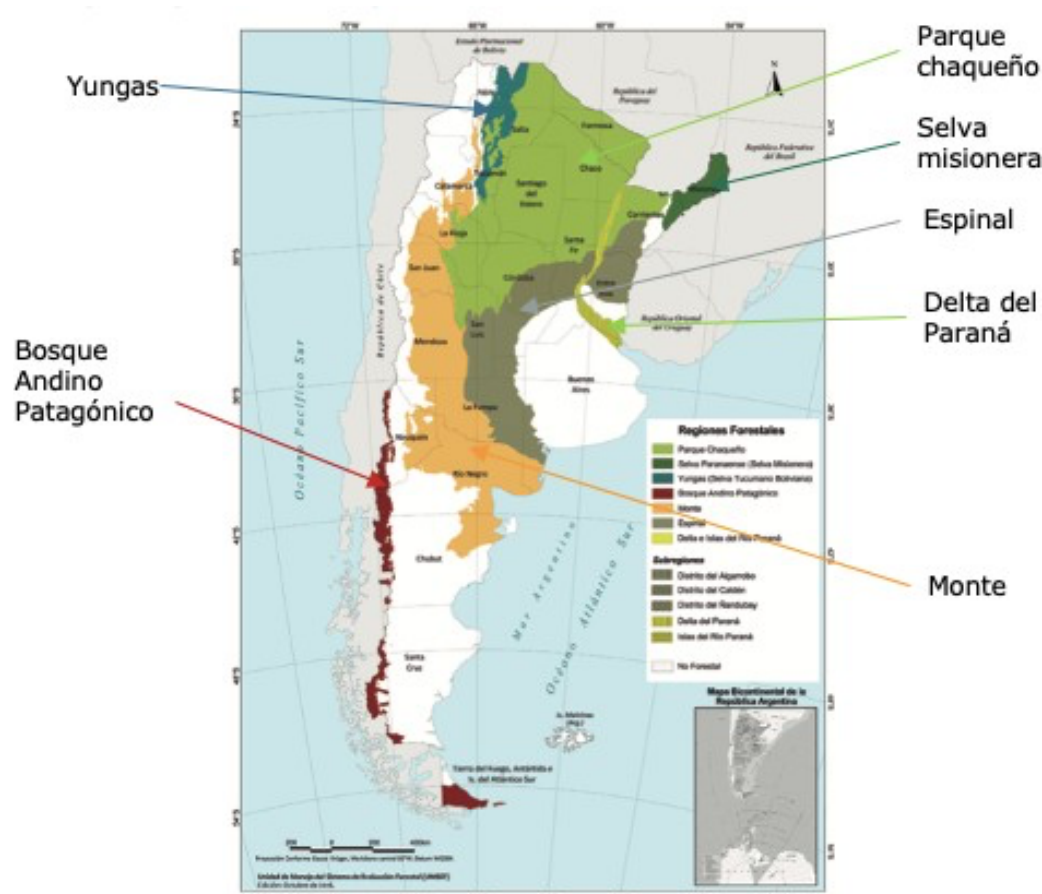
5. **Encourage prizes for zero deforestation value chains.** This new production paradigm must extend to all and, in order to be efficient and to drive producers from developing countries which in most cases are not integrated from primary production to export, this change needs to be profitable. Financial support for primary producers in developing countries is thus essential in order for profitability and sustainability not to be perceived as conflicting, but rather as complementary interests.

9. Situation in MCS countries

In order to be able to review the situation in MCS countries with respect to zero deforestation requirements being developed worldwide, a brief descriptive sheet has been completed for each country. Starting from a general form, each has been completed by local GPS (Argentina, Brazil, Paraguay and Uruguay) groups on the basis of the information and the primary and secondary that each considered best described the local situation. Below is the survey conducted.

- **Country:** ARGENTINA
- **Brief description native forest surface:** Argentina has 536,545 km² of native forests³, lo representing 19.2 % of the continental surface. The provinces with the largest native forest Surface are Santiago del Estero, Salta, Chaco and Formosa corresponding to the Parque Chaqueño.
- **Forest regions** (2017 data⁴): Yungas (8%), Parque Chaqueño (60%), Selva misionera (3%), Espinal (14%), Delta del Paraná (1%), Monte (8%) and Bosque Andino Patagónico (6%).

Table 2: Forest regions in Argentina



Fuente: SIG 250. Instituto Geográfico Nacional de la República Argentina. Unidad de Manejo del Sistema de Evaluación Forestal (UMSEF). Dirección Nacional de Bosques, SAyDS.

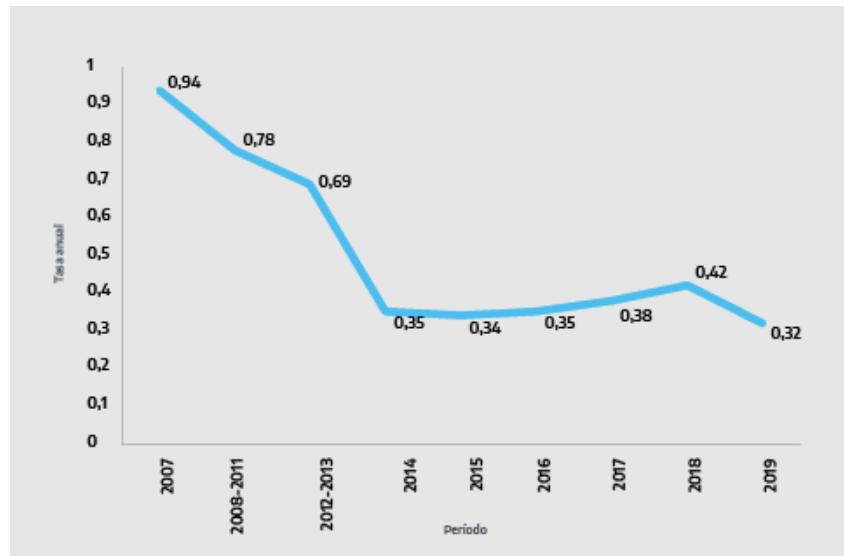
- **Evolution of the deforestation rate:** Between 1990 and 2014, 7,226,000 ha of native forests were lost in Argentina. The average deforestation rate in that period was 289,040 ha/year, going from 242,000 ha. In 1990 to 185,000 ha. In 2014. The deforestation rate therefore dropped from 0.94% in 2007 to 0.34% in 2015. From 2016 to 2018, the deforestation rate increased again, albeit at lower levels than those of the preceding period. 2019 again shows a drop in the annual

³ Native forest is any natural forest ecosystem, in various stages of development, that presents tree cover of indigenous species greater than or equal to 20% of trees reaching a minimum height of 3 meters, and a minimum area equal to or greater than 0.5 hectares, including palm groves.

⁴ Informe del Estado del Ambiente 2019, Secretaría de Gobierno de Ambiente de la Nación, 2019.

deforestation rate in Argentina, with a 0.32% loss of native forest from the total remaining native forest, the lowest figure since 2007.

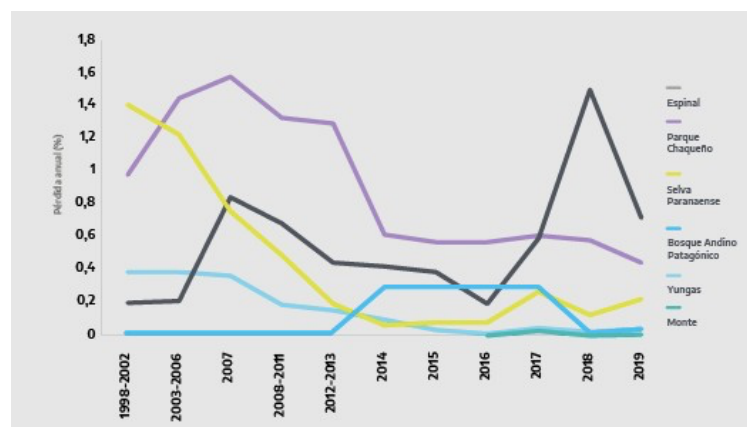
Chart 7: Argentine annual deforestation rate in annual percentage loss of native forest with respect to total remaining forest, 2007-2019.



Source Argentine Ministry for the Environment and Sustainable Development 2019, 2020 Environmental Report

The slowdown in the annual percentage loss of native forests starts in 2008 and coincides with the enactment of Law 26,331 of Minimum Environmental Protection of Native Forests Budgets in late 2007, especially until 2014.

Chart 8: Loss of forest land by forest region, in percentage, 1998-2019

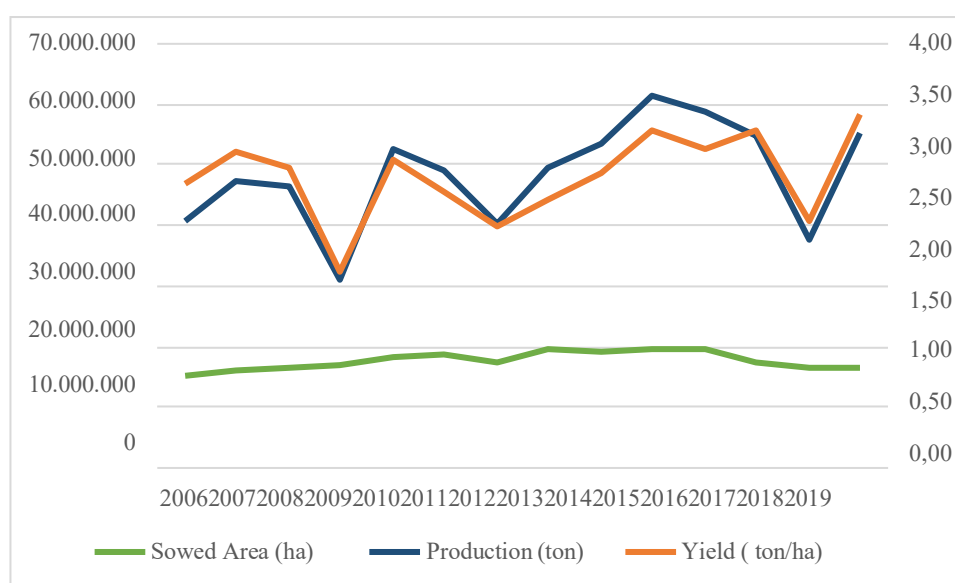


Source Argentine Ministry for the Environment and Sustainable Development 2019, 2020 Environmental Report.

- Soybean production performance in Argentina:

The drop in deforestation in Argentina during the period from 2007 to 2015 was not accompanied by a fall in soybean production, but rather by an increase, together with a constant crop area or even a lesser one. This phenomenon is explained by the addition of new technological packages that increased the productivity of the same portion of agricultural soil, without entailing deforestation by expansion. The drops in production recorded in the period under review are primarily due to drought.

Graph 9: Argentine Soy – Production, sowed surfaces and yield, 2006-2019



Source: FAOSTAT.

○ National Native Forest Monitoring System:

- The System provides updated information about the country's native forestry resources and allows for the follow-up of the implementation of the Native Forestry Act (Act 26.331), the collaboration with the compliance with the international agreements undertaken by the country on climate change and the provision of information to society on the importance of native forests.

- <https://www.argentina.gob.ar/ambiente/ciam/bosques>
- <https://bosques.ambiente.gob.ar/geomaps>

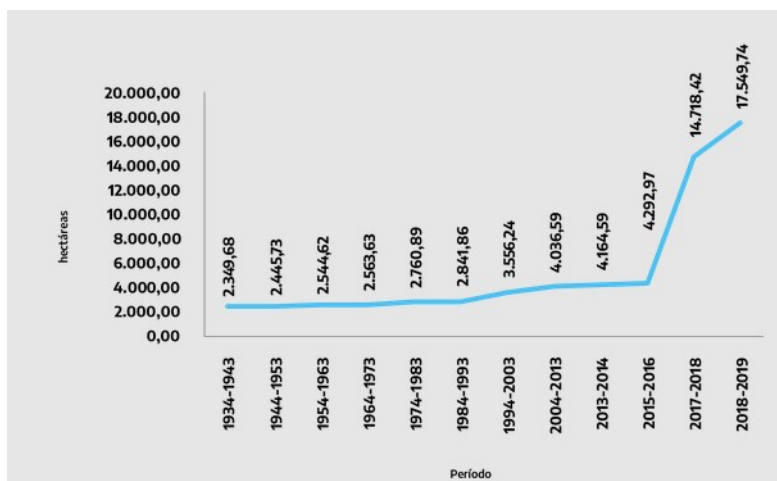
- It also includes self-monitoring and the monitoring of the System of Early Deforestation Alert, the Second National Native Forests Inventory and the National Forestry Statistics Program, as tools for the characterization and monitoring of the native forests at a national scale.

○ Legislation:

- Forestry Wealth Defense Act – Act 13,273

- National Park Act (22,351), National Order of Natural Reserves (453/1994) and National Order of Strict Natural Reserves (2148/1990)
 - The protected natural areas (ANPs, in Spanish) are a public policy instrument with the purpose of ensuring the conservation of biodiversity, eco-systemic services of the natural heritage and cultural identity, within the framework of sustainable development.
 - From a total of 155 ANPs at the beginning of 1990, with a total surface of about 16,192,700 hectares (representing a 4.39% of the surface in the American continental sector of the national territory), there were 497 ANPs by the end of 2019, with a surface of 36,947,536 hectares (13.29% of the surface in the continental sector).
 - The SiFAP has recorded the following ANP in 2019:
 - 5 sites of global heritage
 - 15 biosphere reserves
 - 23 Ramsar sites
 - 55 ANPs under the charge of the National Park Administration
 - 265 areas managed by provinces
 - 44 areas managed by municipalities
 - 16 areas with mixed management
 - 12 areas managed by universities
 - 62 private reserves

Graph 10: Evolution of the surface of national ANPs, under the charge of the National Park Administration, in thousands of hectares, 1934-2019.



Source: Argentine Department of Environment and Sustainable Development, Environment Report 2019, 2020.

- Soil Conservation Act– Act 24,428
- Native Forest Environmental Protection Act – Act 26,331/2009
 - It establishes the minimum environmental protection assumptions for the sustainable enrichening, restoration, conservation, exploitation and management of the native forests.
 - It establishes that each jurisdiction (provinces) must enact the Legislation of the Native Forests existing in its territory according to the sustainability criteria set forth in the Exhibit of this Act, establishing the different conservation categories based on the environmental value of the different units of native forest and of the environmental services they provide.
 - The conservation categories of native forests are as follows:
 - **Category I (red):** very high conservation value sectors that should not be transformed. It will include areas that, due to their locations related to the reserves, their connectivity value, the presence of outstanding biological values and/or the protection of basins they impact, justify their persistence as forest in perpetuity, although these sectors may be the habitat of indigenous communities and subject matter of scientific research.
 - **Category II (yellow):** medium conservation value sectors, which may be degraded, but at the discretion of the competent jurisdictional authority, with the implementation of restoration activities may have a high conservation value and which may be subjected to the following uses: sustainable exploitation, tourism, recollection and scientific research.
 - **Category III (green):** low conservation value sectors that may be transformed, in whole or in part, although within the criteria of this Act.
 - Any land clearing or sustainable management of native forests will require authorization on the part of the competent Authority of the corresponding jurisdiction.
 - No felling of native forests classified in the Categories I (red) and II (yellow) may be authorized.
 - <https://www.cadetierras.com.ar/Act-of-ordenamiento-territorial-26331/>

Chart 3: Argentina - Surface of native forests (in hectares) by conservation category declared by jurisdiction declared by jurisdiction

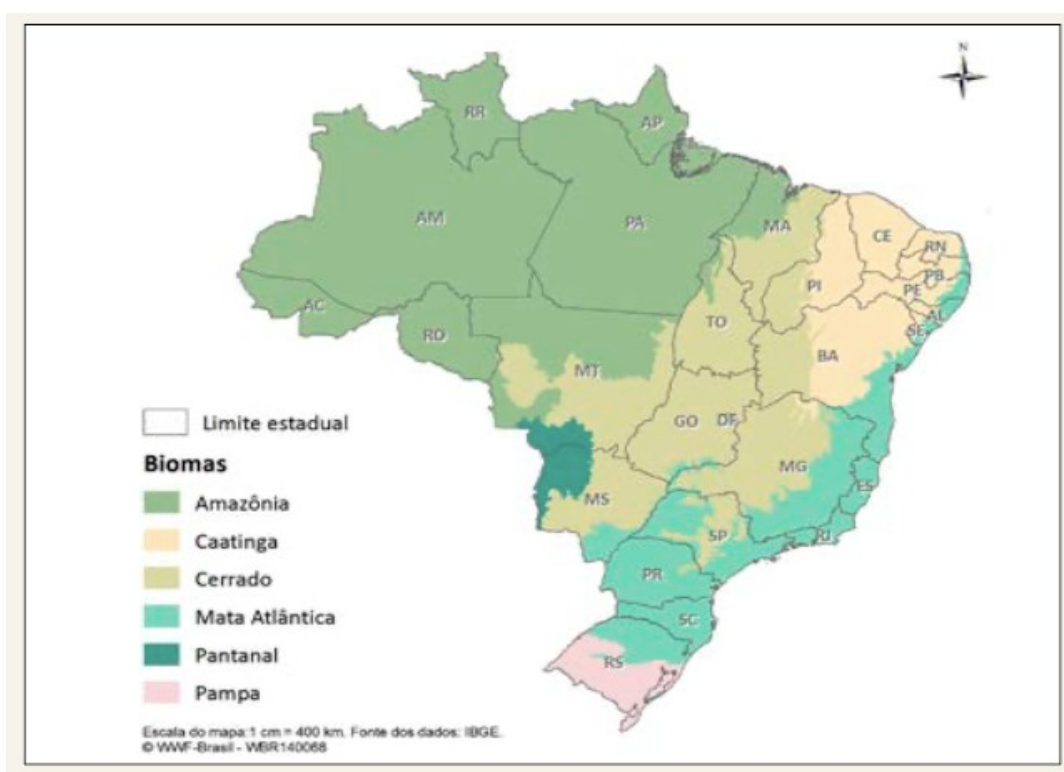
		ROJO (I)		AMARILLO (II)		VERDE (III)	
PROVINCIA	TOTAL	ha	%	ha	%	ha	%
Buenos Aires	969.943	63.886	7	716.379	74	189.678	19
Catamarca	2.433.682	587.123	24	1.543.593	63,0	302.966	13
Chaco	4.920.000	288.038	6	3.100.387	63	1.531.575	31
Chubut	1.052.171	419.351	40	613.324	58	19.496	2
Córdoba	2.923.985	2.393.791	82	530.194	18	0	0
Corrientes	770.319	63.840	8	292.251	38	414.228	54
Entre Ríos	1.920.775	878.255	46	654.654	34	387.866	20
Formosa	4.387.269	409.872	9	719.772	16	3.257.625	75
Jujuy*	1.110.268	247.608	22	728.388	66	134.272	12
La Pampa	3.343.376	150.619	5	2.516.128	75	676.629	20
La Rioja	1.030.821	307.401	30	684.642	66	38.778	4
Mendoza	2.034.188	82.613	4	1.800.595	89	150.980	7
Misiones*	1.612.558	233.083	14	901.617	56	477.858	30
Neuquén	543.917	192.686	35	347.672	64	3.559	1
Río Negro	478.900	181.900	38	252.700	53	44.300	9
Salta	8.280.162	1.294.778	16	5.393.018	65	1.592.366	19
San Juan*	1.494.533	70.206	5	1.386.429	93	37.898	2
San Luis	3.152.630	526.962	17	1.887.363	60	738.305	23
Santa Cruz	523.818	180.569	34	343.249	66	0	0
Santa Fe	1.853.791	663.520	36	1.190.271	64	0	0
Sgo. del Estero*	7.108.203	972.658	14	5.836.563	82	298.982	4
Tierra del Fuego	733.907	311.707	42	401.918	55	20.282	3
Tucumán	910.512	526.638	58	219.413	24	164.461	18
Total	53.589.728	11.047.104	21	32.060.520	60	10.482.104	19

- The Act also contemplate a fostering regime integrated by the National Fund for the Enrichment and Conservation of Native Forests (FNECBN in Spanish) and by the National Native Forests Protection Program (PNPBN in Spanish), funded by resources coming from the national budget.
- International forestry commitments:
 - CDB – 20/02/1995
 - CITES – 08/04/1981
 - Ramsar – 04/09/1992
 - CMNUCC Act 24,295 /1994 – Paris Agreement Act 27,270 and Argentina deposited the ratification instrument before the United Nations Secretary General on September 21, 2016.
 - Forests and Climate Change Action Plan (2017) – with the adaptation and mitigation actions implemented, it seeks to avoid 27MtCO₂eq by 2030.
- Programs implemented by the public sector:
 - National Native Forests Restoration Plan/ForestAr 2030. Res. 267/2019 - target to be achieved by 2023, 20,000 hectares restored annually. This plan intends to be an instrument to start a progressive, adaptive and, above all, continuous process of long-term native forest restoration.

- National Forest with Integrated Agriculture Management Plan – Through the adhesion of the provincial jurisdictions, technical provincial commissions of MBGI have been created, which, combining actions with the national technical commission, were able to advance towards the development of these technologies and their promotion for the different forest regions in the country. In this sense, agreements of adhesion to the National Plan were entered into with the provinces del Chaco, Santiago del Estero, Salta, Formosa and subsequently with the Patagonic provinces of Neuquén, Río Negro, Chubut, Santa Cruz and Tierra del Fuego.
-
- Zero deforestation programs implemented by the private sector:
 - Agroldeal - <https://agroideal.org/>
 - Sectorial Vision of Great Argentine Chaco (ViSeC in Spanish) - a space of debate driven by The Nature Conservancy and the Chamber of Oil Industry of the Argentina Republic, which started in 2019, to gather the main companies of production, processing and commercialization of agricultural commodities with the purpose of reducing the environmental impacts focusing on deforestation and other forms of change of soil use in the Great Argentine Chaco. The main producers and exporters of soy from Argentina have participated in this initiative from the beginning, the main purpose of which is traceability and monitoring of whole soy production and marketing chain.
 - International Certifications in the export chain: ISCC, RTRS, 2BVs, RFA, FSC, PE

- Country: BRAZIL
- Brief description of native forest surface: 66% of the territory in Brazil is covered by native vegetation, 26% is in private territories and the rest is composed of conservation units, indigenous territories and native vegetation. Brazil represents the second surface of conserved forest in the world, after of the Russian Federation.

Chart 4: Forestry Regions in Brazil



- Evolution of deforestation rate in Legal Amazonia: 11,088 km² – estimated data year 2020 PRODES⁵.

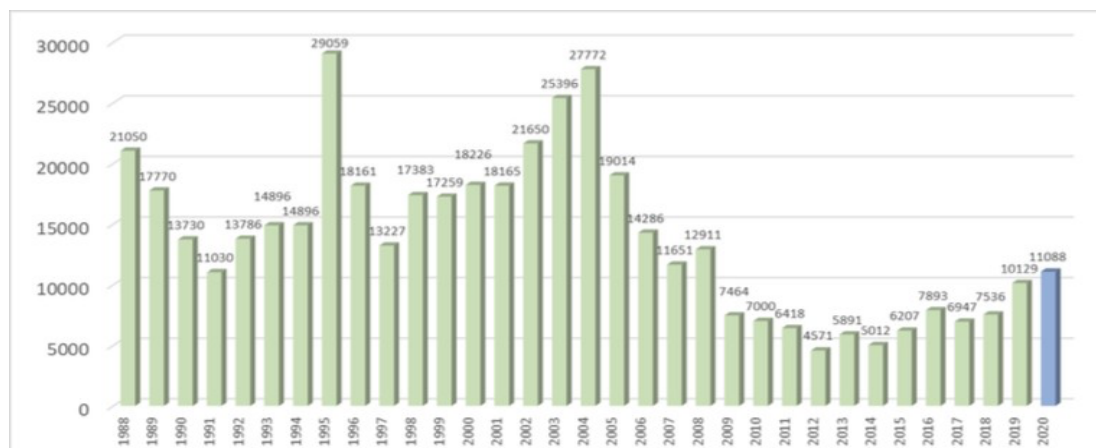
The National Institute of Space Investigations (INPE in Spanish) estimated that the deforestation rate in the Legal Brazilian Amazonia (ALB in Spanish) was of 11,088 km² of clear felling in the period from August 1, 2019 to July 31, 2020. This value represents an increase of 9.5% related to the deforestation rate calculated by PRODES 2019, which was 10,129 km² for the nine states of the ALB.

The estimated rate was calculated based on the analysis of 102 priority images, of all the states of the ALB. The generated mapping used images of the Landsat satellite or similar, to record and

⁵ Department of Science, Technology and Innovation of Brazil –National Institute of Space Investigations, “Technical Nota, Estimativa do Prodes, 2020”

quantify those deforested areas above 6.25 hectares. PRODES considers that deforestation is the elimination of the primary forest cover by means of felling, notwithstanding the future use of these areas.

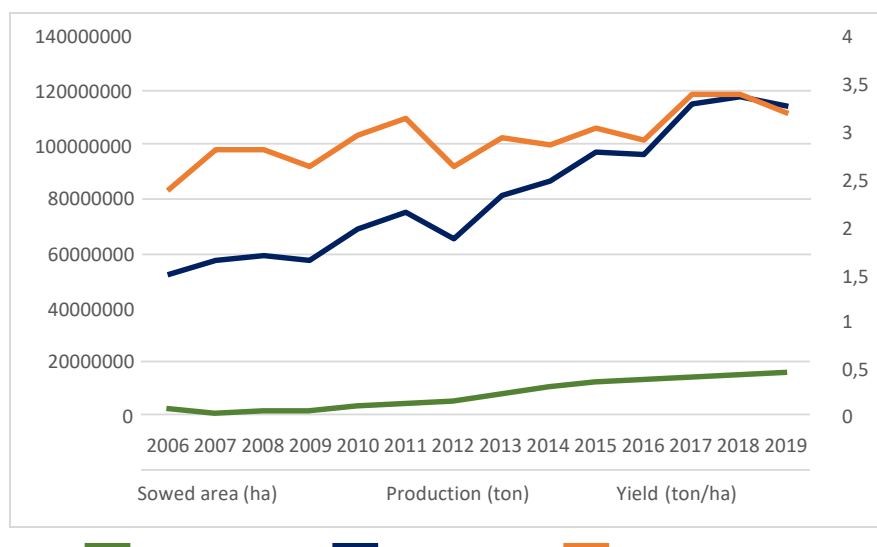
Graph 11: Annual deforestation rate from 1988 in Legal Amazonas – Brazil.



Source: Department of Science, Technology e Innovation of Brazil – National Institute of Space Investigations, “Technical Note, Estimativa do Prodes, 2020”.

- Productive performance of the soy in Brazil:

Graph 12: Brazil Soy – Production, sowed surfaces and yield, 2006-2019



Source: FAOSTAT

- Native Forest Monitoring System:
 - PRODES, Monitoring System of the Amazon jungle by satellite under the National Institute of Space Investigations (INPE in Portuguese) within the Department of Science, Technology

e Innovation of Brazil. Recently, the system has also expanded to the closed biome with the first data provided for 2020 in the first semester of 2021.

- Tools: TerraBrasilis, DETER (Real-Time Deforestation Detection System) and Terra Class project – all additional tools of the National Institute of Space Investigations.
- Serviço Florestal Brasileiro (SFB), through the System of Cadeia de Custódia –SCC and the Forestations and Forests Sustainable Management Plan (PMFS in Portuguese).
- **Legislation:**
 - Forestry Code – Act 12,651/2012
 - Rural Environmental Registry (CAR in Portuguese): all the owner must register their rural properties using high resolution satellite images based on this registry, the state jurisdictional authorities will conduct a more effective environmental monitoring. Within each property, the permanent preservation areas (APP) and the legal reserves (RL) will be identified as lands available for other uses.

Chart 5: Percentages of legal reserve required by law in Brazil

Tabela 1 – Percentual de reserva legal exigido pela lei – por região

Uso da Terra	Amazônia Legal			Restante do Brasil
	Floresta	Cerrado	Campos Gerais	Todos os biomas
Reserva legal	80%	35%	20%	20%
Outros usos	20%	65%	80%	80%

The owners who have deforested beyond what is allowed until July 22, 2008, must recover their legal reserve areas or compensate this deforestation to third places. Those owners who have deforested in APP have no chance of compensation in third places and must restore the zone in a term no longer than 20 years. Thus, the producer enters the Environmental Regularization Program (PRA in Spanish).

In turn, the Code establishes that as of May 2017, the financial system may not offer credit to producers who have not registered their lands in the CAR.

<http://www.car.gov.br/#/>

- Eco-system Services Payment Act – 14,119, 2021

A policy focused on the maintenance, recovery or improvement of the vegetal coverage in areas considered priority for the conservation, in actions to combat the fragmentation of the habitat and for the formation of biodiversity paths and conservation of the hydric resources. The payment for environmental services may take several manners: a) direct (monetary or other); b) provision of social improvements for rural and urban communities; c) compensation related to a certificate of reduction of emissions due to deforestation and degradation; d) loan; e) greens bonds and quota of Environmental Reserve instituted by the Forestry Code.

○ International Forestry Commitments:

- CDB – 29/05/1994
- CITES - 4/11/1975
- Ramsar – 24/09/1993
- CMNUCC – Paris Agreement – September 21, 2016.
- Partner of the OECD, in the process of signing the implementation of the Guidelines.
- Declaration of New York – Subnational States of Acre, Amapa and Amazonas.

○ Programs implemented by the public sector (or in public-private association):

- Terra Legal Program - Regulation and land title program for the benefit of small producers and local communities. It started to be implemented in 2009 and it is executed by the Secretariat of Heritage of the Union of the Department of Planning, Budget and Management, the Department of Agricultural Development, the states and municipalities. It currently benefits about 150,000 people, both in urban and rural zones of the Amazonia.
- ABC Program – Low Carbon Agriculture – it is one of the sector plans prepared pursuant to section 3 of Execute Order 7,390/2010 and its purpose is the organization and planning of those actions to conduct for the adoption of technologies of sustainable production, selected with the purpose of responding to the GEI emission reduction commitments in the agricultural sector undertaken by the country. The ABC Plan is composed of seven programs, six of which refer to mitigation technologies, and a final program with actions for adaptation to climate change: • Program 1: Recuperation of degraded grasses; • Program 2: Integration of crops, cattle and forests (iLPF) and agro-forestry systems (SAF); • Program 3: System of direct sowing (SPD); • Program 4: Biological nitrogen fixation (FBN); Program 5: Sowed forests; • Program 6: Animal waste treatment; • Program 7: Adaptation to Climate Change.

- <https://www.gov.br/agricultura/pt-br/assuntos/sustentabilidade/plano-abc>
- Produce, Conserve, Include (PCI) Strategy for the state of Mato Grosso. The agreement has the purpose of restoring up to 182,904 hectares (ha) of degraded grasses for sustainable production in both municipalities for 2023, mainly through intensified cattle raising. It also agrees to preserve 970,000 hectares of the Amazon jungle.
 - <http://pci.mt.gov.br/>
- Floresta + Program (2020) - The initiative has the purpose of boosting the preservation actions for the native Brazilian forest. The initial project will be carried out in the Legal Amazonia and more than R \$ 500 million will be destined to activities to improve, conserve and restore nature. The program is aimed at individuals or entities, whether public or private, families or community group that, directly or through third parties, conduct the activities of environmental services in areas maintained with native vegetal coverage or subject to their recovery. Several land categories may be recognized and benefited in all the national territory, whether private areas, of permanent preservation and of restricted use, settlements, indigenous lands or conservation units, provided they have activities of protection and conservation of the natural resources.
- Zero deforestation programs implemented by the private sector:
 - Bonsucro – <https://www.bonsucro.com/>
 - Grupo de Trabalho da Pecuária Sustentável (GTPS) – <https://gtps.org.br/is/> with representation of Brazil in the Roundtable (GRSB)
 - Coalizão Clima Florestas e Agricultura - <http://www.coalizaobr.com.br/home/>
 - FSC – <https://fsc.org/is>
 - Moratoria da Soy – it is an agreement signed in 2006 by the representatives of the civil society, agro-industrial sectors and the Brazilian government not to continue converting the native vegetation lands of the Amazon jungle to the agricultural production of soy.
 - Pacto pela Restauração da Mata Atlântica - <https://www.pactomataatlantica.org.br/>
 - Diálogo Florestal - <https://dialogoflorestal.org.br/>
 - PPA – Parceiros pela Amazônia - <https://ppa.org.br/>
 - TFA - Tropical Forest Alliance - <https://www.tropicalforestalliance.org/>

- Country: PARAGUAY
- Brief description of native forest surface: The country is divided by the Paraguay river in 2 well differenced big physiographic regions: the Occidental Region or Chaco and the Oriental Region.
- Deforestation evolution rate:
 - The Oriental Region, which is where most of the economic activities of the country, including the agricultural and forest extractions, it occupies 40% of the national territory and houses 97% of the population. Act 2524/04 determines the “Prohibition of the Activities of Transformation and Conversion of Surfaces with Forest Coverage in the Oriental Region” from 2004. In such legislation, Native Forests in the Oriental Region of the country are defined as “Native or autochthonous ecosystem, intervened or not, regenerated by natural succession or other forestry techniques, which occupy a minimum surface of two hectares, characterized by the presence of mature trees of different ages, species and varied size, with one or more canopies covering more than 50% of that surface and where there are more than sixty trees per hectare of fifteen or more centimeters of diameter measures at the chest (DAP)”. As regards the conservation of the vegetal coverage with forests during the 1973 - 2021 period in the Oriental Region has been 35.32%.

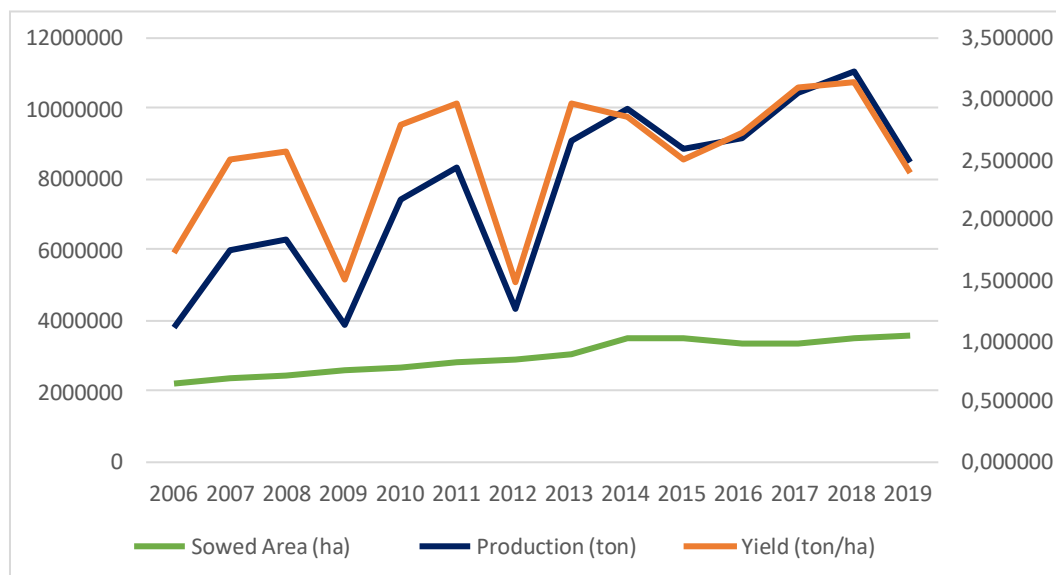
Chart 6: Paraguay –Oriental Region – Surface Forests 1973 – 2004

Total, surfaceForests1973	Forests1986	Forests2002	Forests2004	Forests2021
Oriental Region (ha)				
15,982,700	6,842,175	5,599,410	3,262,981	2,559,811
%	42..81	35.03	20.42	16,02
				15

Source: Geo-Space Analysis: Federico Pekholtz (EFEPEK) 2021.

- The productive performance of the soy in Paraguay:

Graph 13: Paraguay Soy – Production, sowed surfaces and yield, 2006-2019



Source: FAOSTAT

- The Occidental Region or Chaco, composed of an immense sedimentary plain of rain alluvial origin, representing 60% of the territory and containing only 3% of its population, according to the CAN 2008 (National Agricultural Census) it represents only 3% of the productive units of the Agro-Rural sector of Paraguay occupying a surface of 17,644,612 Ha. As regards, the conservation of vegetal coverage with forests in the Occidental region during the 1945 - 2019 period has been 64%. The Forestry Act 422/73 and Act No. 294/93 of Evaluation of Environmental Impact (EIA in Spanish) in force oblige the productive units of Chaco to conserve 25% as legal reserve for use of forestry exploitation, but currently up to 45% of the Vegetal Coverage with Forest Strata is being conserved.

Chart 14: Paraguay –Occidental Region – Surface Forests 1945 – 2019

Total, surface Occidental R. (ha)	Forests1945	Forests2009	Forests2019
24,692,500	17,904,346	14,894,891	11,444,026

Source: Geo-Space Analysis: Federico Pekholtz (EFEPEK) 2021

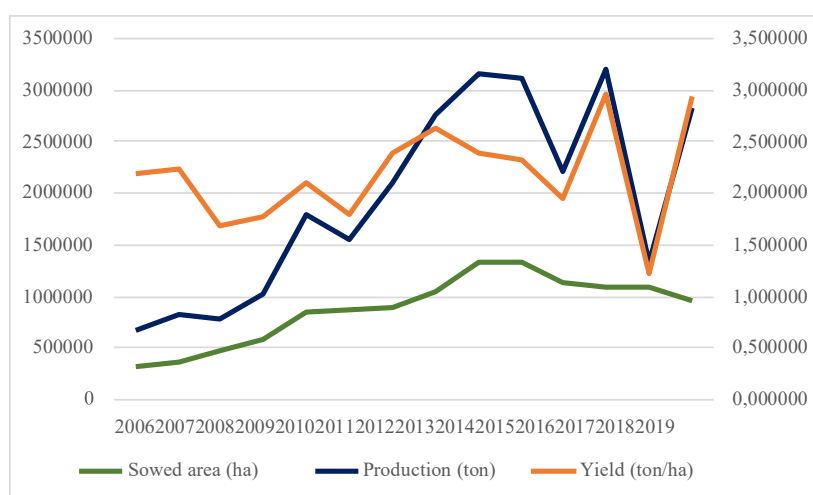
- National Native Forest Monitoring System:
 - National Forest Monitoring System / Satellite Earth Monitoring System
 - <http://www.infona.gov.py/index.php?clD=667>

- Legislation:
 - Forestry Act 422/73
 - Act No. 294/93 of Evaluation of Environmental Impact
 - ACT 536/95 of Fostering of Forestation and Reforestation
 - Act No. 2524/04 Prohibition of the Activities of Transformation and Conversion of Surfaces with Forests Coverage in the Region Oriental
 - Act 4890/13 of Jus ad Rem of the forestry surface or forestry canopy
- International Forestry Commitments:
 - CDB – 25/05/1994
 - CITES – 13/02/1977
 - Ramsar – 07/10/1995
 - CMNUCC – Paris Agreement – October 14, 2016
- Implemented public/private programs
 - Green Production Landscape Project: The project had the purpose of protecting the biodiversity and functions of the eco-region of the Atlantic Forest of Alto Parana upon the existing and emerging threats of the multi- sectorial production practices and it is a model to be replicated throughout the eco-regions in the country, aligned with the Purposes of Sustainable Development (ODS) 12 and 15. The project is led by the Department of the Environment and Sustainable Development (MADES in Spanish), implemented by the United Nations Program for Development (PNUD in Spanish) and funded by the Fund for the World Environment (FMAM in Spanish).
 - National of Sustainable Commodities Platform: It is an open dialogue space where sustainable soy and export meat production is fostered with special focus on the protection of native forests. Consequently, work desks were implemented at district, department, regional and national levels.
 - Sustainable Naranjal– Model of Reestablishment and Conservation of Protective Forests in the Oriental Region: It is a local development project with public – private initiative between the Municipality of Naranjal and the Naranjal Agricultural Production Cooperative (COPRONAR in Spanish), with the support of colleague entities related to the implementation of the different national and international legislations with sustainability criteria, the purpose of which is to

improve the quality of life of its inhabitants through the management, recovery and restoration of the natural resources (there is a restoration component of 200 has with native species, territorial planning, gradual application of good practices in the diverse activities of the community).

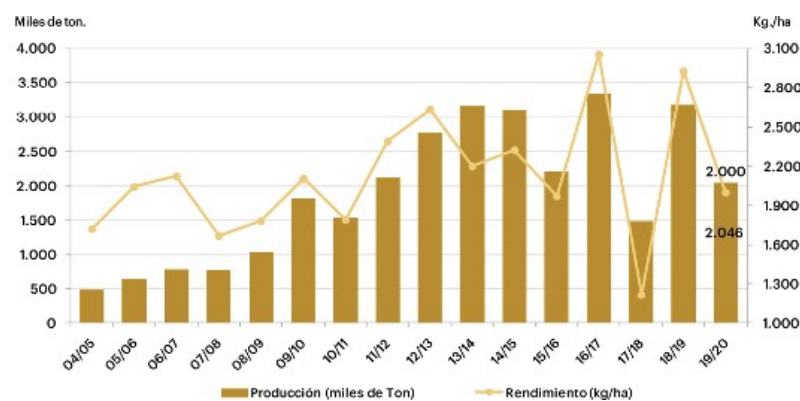
- Country: URUGUAY
- Brief description of native forest surface:
 - The native forest occupies, according to the 2018 National Forestry Cartography, a surface of 835,349 ha (4.77% of the entirety of the national territory). It is a biodiverse ecosystem, which is associated to the Pampa and Chaco biomes.
 - In Uruguay, there are currently 1.15 million hectares of planted forests. The forestry plantations in Uruguay are not done substituting the native forest. Such practice is totally prohibited, and it is enacted (Forestry Act No. 15,939/988).
- Evolution of deforestation rate: 2010 – 2015: 1,83 ha/year.
- The productive soy performance:

Graph 15: Uruguay Soy – Production, sowed surfaces and yield, 2006-2019



Source: FAOSTAT

Graph 16: Uruguay Soy – Production and yield, 2004-2020



Source: Uruguay XXI based on DIEA.

- National Native Forests Monitoring System:

- Forestry Information System. General Forestry Direction (MGAP) National Registry of Forests from 1975 to this date.

- <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/monitoreo-forests>
- <http://www.fao.org/forestry/nfms-for-redd/is/>.

- Legislation:

- Uruguay is a country which stands out and differs from many others because it has the will to forest and not to deforest. This is because it relies on a legal framework that regulates and fosters forestry activities for many years now, but which is supplemented with a series of rules and complementary tools, among which it is to point out that mandatory plans of use and management of soils (Act 15,239/982), monitoring of environmental indicators (National Environmental Observatory - <https://www.dinama.gub.uy/oan/geoportal>), geographic information systems, control in the use of agrochemicals, the policy of native forests and protected areas (<https://www.gub.uy/ministerio-ambiente/areas-protegidas>) and the promotion of irrigation, among others.

- Specifically, Act 15,239 of 1982 and its regulatory orders (Order 405/008, Order 333/004 and Order 284/990) establish that the MGAP will require that agricultural producers submit a Plan of Responsible Use and Management of Soil (Plans of Use), taking into account the soils of the site, management practices, crop sequencing and tolerable erosion.

- Forestry Act 15,939 (<https://www.impo.com.uy/bases/Leyes/15939-1987>)

- It classifies the native mountain in gallery or riverbank, highlands, palm groves, parks or ravines.

- International Forestry Commitments:

- CDB – 03/02/1994
- CITES - 1/07/1975
- Ramsar – 22/09/1984
- CMNUCC – Paris Agreement – October 19, 2016

- Programs implemented by the public sector:

- Development and Adaptation to Climate Change Project

- <http://www2.mgap.gub.uy/portal/page.aspx?2,MGAP,MGAPAmpliacion,O,es,0,PAG;CONC;599;3;D;proyecto-desarrollo-y-adaptacion-al-cambio-climatico-dacc--prestamo-banco-mundial-8099-uy;1;PAG;>
- “Cattle intelligent-climate and restauration in Uruguayan grassland” Project
 - <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/tematica/proyecto-ganaderia-clima>
<https://www.andoutube.com/watch?v=Hlwh0kHOfhg&feature=youtu.be>
- Program for the Reduction of Emissions caused by the Deforestation and Forest Degradation (REDD+)
 - <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/politicas-y-gestion/redd>
- Zero deforestation programs implemented by the private sector: Apart from the strict compliance with the legislation in force, the main forestry companies in Uruguay implement rigorous international programs of certification of plantations and forestry products, which include criteria of native forest conservation and biodiversity. There are also incentive programs for agricultural producers who lease non-forested areas (firewall, paths, etc.) within the plantations.

10. MC Association Agreement – EU: commitments on deforestation

The project of Association Agreement between the EU and Mercosur with a specific chapter of commerce and sustainable development includes a commitment of the parties for the effective implementation of the CMNUCC, Paris Agreement and the 2030 Agenda as pillars of all the multi-lateral environmental purposes. As a consequence, the right of the parties of regulating in their jurisdictions to achieve the environmental protection levels contemplated is established and this does not mean that these measures are covered obstacles for commerce.

In non-legal texts available as of this date within the chapter of commerce and sustainable development, section 8 specifically establishes the measures tending to insure a sustainable management of the forests. The Parties recognize the importance of sustainable forestry legislation and the role of commerce in the consecution of this purpose and of the forestry restoration for the conservation and sustainable use. Each Party must:

- a. Foster the commerce of forestry products managed in a sustainable manner exploited pursuant to the legislation of the harvest country;
- b. Promote, as appropriate, and with its prior supported consent, the inclusion of the local communities of the forests and the indigenous peoples in the sustainable procurement chains of wooden and non-wooden forestry products, as a means to improve their means of life and promote the conservation and sustainable use of the forests; and
- c. Implement measures to combat illegal felling and the related commerce.

The Parties must also exchange information about initiatives related to the commerce about sustainable forestry legislation, forestry governance and about the conservation of the forestry canopy and cooperate to maximize the impact and insure the mutual support of their respective policies of mutual interest; and cooperate, as appropriate, bilaterally, regionally and internationally in international forums on questions related to commerce and the conservation of the forestry canopy and the sustainable forestry legislation, pursuant to the 2030 Agenda for Sustainable Development. For the follow-up of the chapter as a whole, the Agreement creates a Subcommittee that will be in charge of the monitoring and with the capacity to submit improvement proposals if deemed necessary.

In the last year, some European government driven by France have shown concern for the political decisions undertaken by the MCS which, according to their point of view, would not correspond with the purposes established in the multilateral environmental commitments guaranteed in the text of the agreement. Therefore, the validity of the Association Agreement in its current form would be contrary to the European ambition of combating climate change and protecting biodiversity. As a consequence, they are conditioning the approval of the commercial agreement only if it could be guaranteed that the signature would not entail the incorporated increase in deforestation respecting the binding and non-binding commitments in deforestation matters at a multilateral level.

In this sense, showing that the MCS has regulations in force with public and private initiatives that protect native forestation and that there are monitoring and traceability systems from end-to-end which insure the zero-deforestation incorporated in the exports products is essential.

11. Conclusions

The deforestation and the forest degradation at a global level continue progressing at an alarming pace, which notably contributes to the current loss of biodiversity and the loss of carbon in the soil.

Even if Africa recorded the highest net loss of forestry surface in the 2010-2020 period, it was followed by South America, with 2.60 million hectares a year. But while since 1990 in Africa an increase of the net loss rate has been observed, **the losses in South America have been substantially reduced, in more than half since 2010 as regards the previous decade.** This behavior contributed to the deceleration in the net loss of the global forestry surface in the 2010-2020 period.

The agricultural expansion by cattle raising, soy and palm continues to be the main cause of deforestation and fragmentation of the forest and the loss associated to the forestry biodiversity at a global level. In spite of this, **there are important advances in matters of restoration of forests, and South America presents the highest restoration surface with 10.7 million hectares in the 2000-2019 period.** In turn, **South America also represent the biggest part of the forests in protected areas at a global level with a participation of 31%.** In this way, the commitment of South America with the Decade of the United Nations on Restoration of Ecosystems is rather relevant.

There is a strong commitment on binding and non-binding matters by means of public and private initiatives of the international community as a whole to reduce the loss, protect the native forestation and strengthen the forestry governance with the purpose of reaching the target of zero deforestation. In spite of the commitments undertaken both in the Bonn Challenge, the Declaration of Nueva York, the Declaration of Amsterdam and the ODS 15, the proposed targets are far from accomplishment, if the low effective implementation rates are maintained by the involved parties.

In this scenario, the coming launch (05/06/2021) of the Decade for the Restoration of Ecosystems within the framework of the United Nations, to support the legislative initiatives in boom in the EU and the United Kingdom acquires even more significance. The latter seek to traction zero deforestation through the effective protection of the native forests in their national territories adding to the closing of the market for imports with incorporated deforestation with the purpose of achieving a sustainable nourishing system and, specifically as regards deforestation, impact-free procurement chains. In order to ensure that there is no fraud in the environmental information reported, the legislative proposal to be implemented is the obligation to conduct a due diligence in origin, as one of the key axes, on recognizing the use of this type of audit by third parties, to guarantee the compliance of the legal requirement set forth and other risks identified in the supply chain. This proposal also points out that the certification and labeling under the charge of third parties are not efficient, in themselves, to prevent that the basic products and other products which entail risks for the forests and the ecosystems to be commercialized in the domestic market of the European Union. It values that the certification under the charge of third parties can only be supplementary, but it cannot substitute the thorough mandatory procedure of due diligence that have to be implemented by the companies, fostering the transparency of their supply chains and guaranteeing their social and environmental responsibility, pursuant to the principle of “those who pollute, pay”, one of the basic pillars of the environmental policy of the EU, contemplated in section 191 of the Operation Treaty of the European Union (TFUE in Spanish). The same road that the USA seems to want to recover with the inauguration of its new administration.

As a consequence, the close interdependency with the environment directly presses the primary agricultural systems in origin and puts the downstream productive activities under the spotlight of the global public opinion. To successfully respond to this challenge, it is then necessary to rethink the current business model within a sustainable paradigm, both from the environmental and the social and economic

standpoint, that is verifiable by third parties and thus satisfies the public and private demands in the main consumption markets.

The compared state of situation of the countries of the MCS as regards the requirements of the destination markets is the following:

Chart 8: Comparative chart of MCS Main Deforestation Indicators

MCS Countries – Deforestation Comparative Chart				
<i>Indicator</i>	Argentina	Brasil	Paraguay	Uruguay
Deforestation Rate	Between 1990 and 2014, 7,226,000 hectares of native forests were lost. The average deforestation rate was 289,040 ha/year, going from 242,000 ha. In 1990 to 185,000 ha in 2014. As a consequence, the rate dropped from 0.94% in 2007 to 0.34 % in 2015. From 2016 to 2018, the rate increased again, although at lower levels than the previous period. The figures of 2019 show a fall in the annual rate, reaching 0.32% of loss of native forest as regards the	Brazilian Legal Amazonia (ABL): 11,088 km ² – estimated data year 2020. This value represents an increase of 9.5% as regards the rate in 2019, which was 10,129km ² .	<p>Oriental Region: conservation of vegetal canopy with forests 1973- 2021 period has been 35.32%, with an important deceleration since 2004. In the 2004 – 2021 period, the deforestation rate has been 5.59%.</p> <p>Chaco Region: conservation of vegetal canopy with forests in the 1945 - 2019 period has been 64%.</p>	2010 – 2015: 1.83 ha/year.

	total remaining native forest, the lowest figure since 2007.			
Sistema de Monitoreo Nacional	National Native Forests Monitoring System	PRODES, TerraBrasilis, DETER, Terra Class, Serviço Florestal Brasileiro (SFB)	National Native Forests Monitoring System / Satellite Earth Monitoring System	Forestry Information System. General Forestry Direction (MGAP) National Forest Registry.
Ordenamiento normativo principal	Act of Environmental Protection of Native Forests	Forestry Code and Act of Ecosystem Payments.	Forestry Act, Act of Evaluation of Environmental Impact, Act of Prohibition of Activities of Transformation and Conversion of Surfaces with Forests Canopy in the Oriental Region.	Forestry Act
Compromisos forestales internacionales	Yes	Yes	Yes	Yes
Programas público/privados cero deforestación	Yes	Yes	Yes	Yes

Source: Own preparation based on data of country validated by country GPS.

From the comparative chart the following conclusions on deforestation matters can be drawn:

- Uruguay differs from Argentina, Brazil and Paraguay, presenting an almost null deforestation rate.
- All the countries in the MCS have satellite monitoring systems which insure full traceability from end to end, from origin to the boarding port in origin.

- All the countries in the MCS have territorial legislation that protect the native forestation and promote the recovery of degraded areas
- All the countries in the MCS are signatories of the main binding international documents on climate change, with the last inclusion in the Paris Agreement.
- Argentina, Brazil, Paraguay and Uruguay have public and private programs that allow ensuring the procurement chains pursuant to sustainability and deforestation criteria by means of the validation of independent third parties.

The experience acquired at international level has shown that in order for an effective action against deforestation it is necessary to:

- a) Determine the local origin of the basic products supported on the satellite monitoring systems.
- b) Assess the risks and opportunities related to the forests within the environmental and legal jurisdictional context, as the risk of deforestation may not and must not be managed as world averages without considering the local legislative framework. This evaluation at the lowest jurisdictional level is only a starting point for comprehensive diligence in the procurement and investment of basic products.
- c) Encourage the jurisdictions in their road toward a deforestation-free production. The more transparency and reliability in the forestry risk evaluations will entail the identification of high-risk places and actors and, conversely, opportunities for a legal and deforestation-free procurement.
- d) Address the zero deforestation as a public–private initiative, considering that the systemic risk is shared.
- e) Incentive award in the zero-deforestation value chain. This new productive paradigm must extend to everyone to be efficient and to traction producers of developing countries which, in most cases, are not integrated with primary production to exports. The financial economic incentive is necessary for this change to be profitable. Therefore, a financial support is essential for the primary producers in the developing countries in such a way that profitability and sustainability are not perceived as contrary but supplementary interests. In turn, this true financial support will allow for the reestablishment of the principle of common but differentiated responsibilities within the framework of the action by climate

Therefore, considering that the zero deforestation requirements in addition to frame the commercial operations are in turn also influencing the bilateral and multilateral commercial negotiation processes, it is necessary for the MCS to address this issue focusing on the following points:

- **The MCS is in condition to supply the global food and beverage demands with zero deforestation incorporated** involving certifications of independent third parties with international recognized standards and satellite images.
- **The MCS must incorporate to the regulatory negotiations** in an active manner providing objective data that clarify the state of situation as regards the deforestation in countries of origin and **avoid exclusions by product** due to classifications ex ante as with high risk of incorporated deforestation.
- Within the framework of such negotiations must focus on **the obligation by the destination countries at government and import sector level to make effective the actions of capacity building, transference of technology and green financing in origin**, so as to strengthen the local jurisdictions and achieve the generalization of the zero-deforestation practice.
- **The MCS must carry out a strong communication campaign** identifying the different public purposes in the assembly of the message as regards the actions that are being undertaken to supply food and bio-energies with zero deforestation incorporated so as to inform the regulations in origin, the evolution of the local deforestation and its relationship with its exports.

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