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INTRODUCTION – URUGUAY NATIVE FOREST

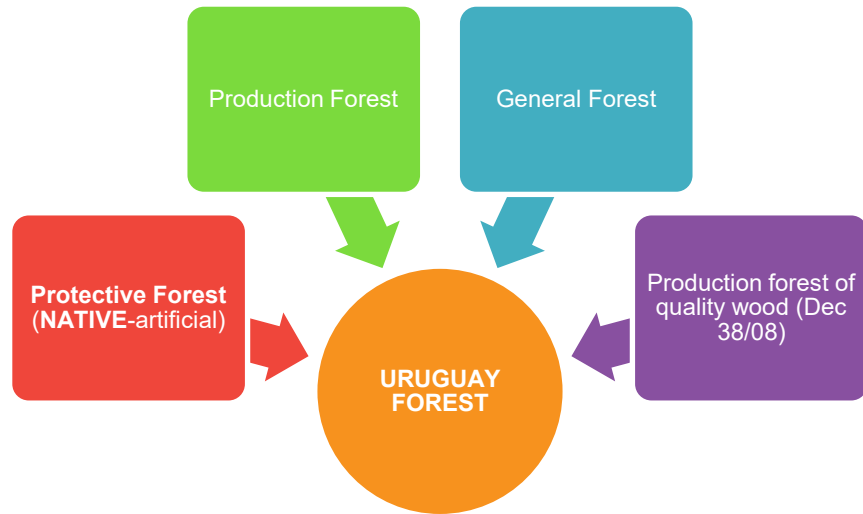
Native forest Uruguay definition

Uruguayan legislation, through Law 15.939, the Forestry Law, and its regulations, defines **native forest** as “*vegetative associations in which trees of any size predominate, whether exploited or not, and are capable of producing timber or other forest products, influencing soil conservation, hydrological regimes, or climate, or providing shelter or other benefits of national interest.*” Additionally, under its regulations, Decree 452/988 establishes that forests are considered tree formations with a “*minimum area of 2,500 m²*”. Furthermore, the General Directorate of Forestry (DGF), in the Native Forest Registration Guidelines, specifies that there *must be at least 200 trees per hectare and a minimum coverage of 50%*.

The Forestry Law establishes that, following technical procedures defined by the DGF, forests will be classified according to their purposes in:

- Protective forests (native or artificial): those whose main purpose is to conserve soil, water and other renewable natural resources
- Production forests: those with the main purpose of production
- General forests when they do not have the characteristics of the previous ones
- Production forest of quality wood established in the Decree No. 38/08

Figure 1. Forest Classification Uruguay



The forest classification is carried out by the GFD, at the request of the individual or on their own initiative, and then they are integrated into the National Forest Registry of the Forestry Directorate.

The protection of the forest, according to the law, is based on the prohibition of the destruction of protective forests and of “*any operation that does not conform to the plan mentioned in article 49 and that intentionally or not threatens the development or permanence of the forest.*” Their elimination can only be carried out with prior authorization and with the precautions that the Forestry Directorate will establish in each case.

The state of Uruguay Forests

The predominance of grassland in Uruguay is evident (see Figure 4). Most of the territory is covered by grasslands, with agriculture and forest sharing second place, while wetlands and water bodies occupy a smaller extent. Agriculture is mainly concentrated in the Uruguay River Basin and the Lago Mirim region.

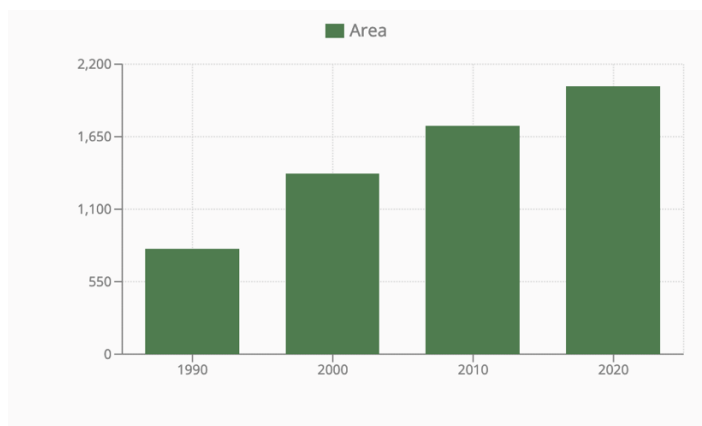
Figure 2. Uruguay distribution of land cover 2015



Source: © ESA Climate Change Initiative - Land Cover led by UCLouvain (2017)

Uruguay currently has an affected **forest area of approximately 2 million hectares** (2020), equivalent to 12% of Uruguay land, 57% of which are planted forests, the remaining forest area is made up of native forests.

Figure 3. Uruguay Forest Area (000 ha)



Source: FAO-FRA Platform

Based on the 2016-2018 National Forest Cartography, in **Uruguay native forests occupied 835,349 hectares** (4.77% of the total national territory).

Table 1. Forest Area Uruguay

Area	Hectares	%
Total Country Uruguay	17,502,000	100

Planted Forest	1,000,190	5.1
Native Forest	835,349	4.77
Concentration of palm groves	16,224	0.09
Total Forest Area	1,851,763	10.57

Source: División Evaluación e Información de la DGF-MGAP Uruguay

Table 2. Native Forest Uruguay by Department

Department	Total Area (Hectares)
Artigas	59,113
Canelones	13,450
Cerro Largo	64,883
Colonia	26,921
Durazno	20,916
Flores	7,096
Florida	26,346
Lavalleja	68,966
Maldonado	64,522
Montevideo	919
Paysandú	70,062
Río Negro	44,562
Rivera	56,266
Rocha	44,423
Salto	56,019
San José	20,113
Soriano	36,573
Tacuarembó	102,873
Treinta y Tres	50,425
Total	835,349

Source: División Evaluación e Información de la DGF-MGAP Uruguay

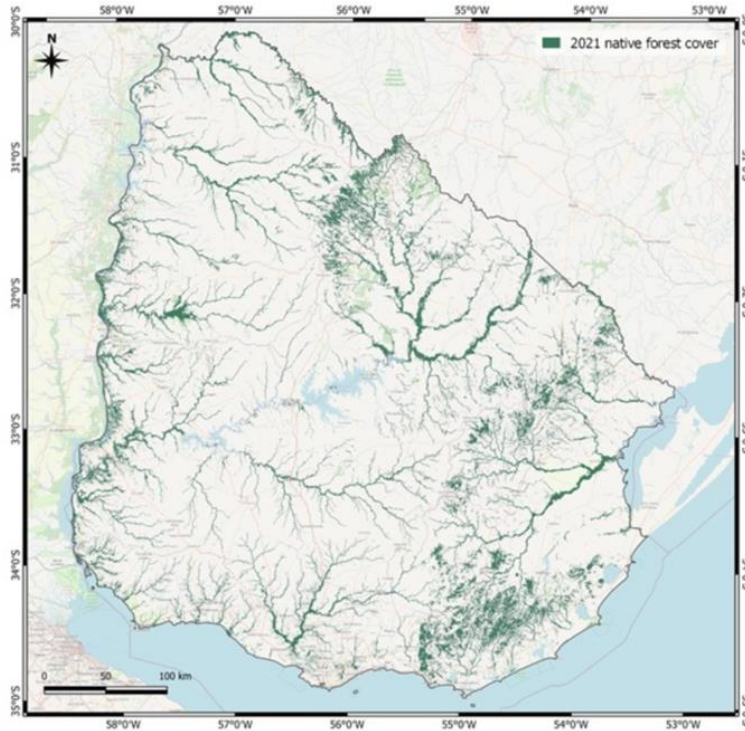
Figure 4 Departments Uruguay



The Department of Tacuarembó represented 12.3% of the total native forest area, followed by Paysandú (8.4%) and Lavalleja (8.2%).

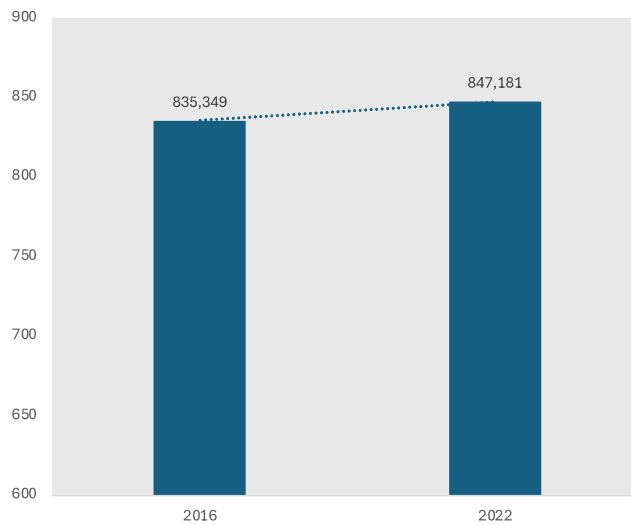
According to the newest native forest cartography resulting from the 2022 survey, native forest occupies an area of **847,181 ha**, corresponding to approximately 4.84% of the total land area of the country.

Figure 5. Uruguay Native Forest Coverage



Source: MAGP - Sentinel 2 images were used, and the product was the Native Forest Cover Layer of the Eastern Republic of Uruguay for the year 2021, developed from the Google Earth Engine platform. For the selection of the scenes, the period between the months of October 2021 and February 2022 was taken as a reference.

Figure 6. Uruguay Native Forest Area (ha)

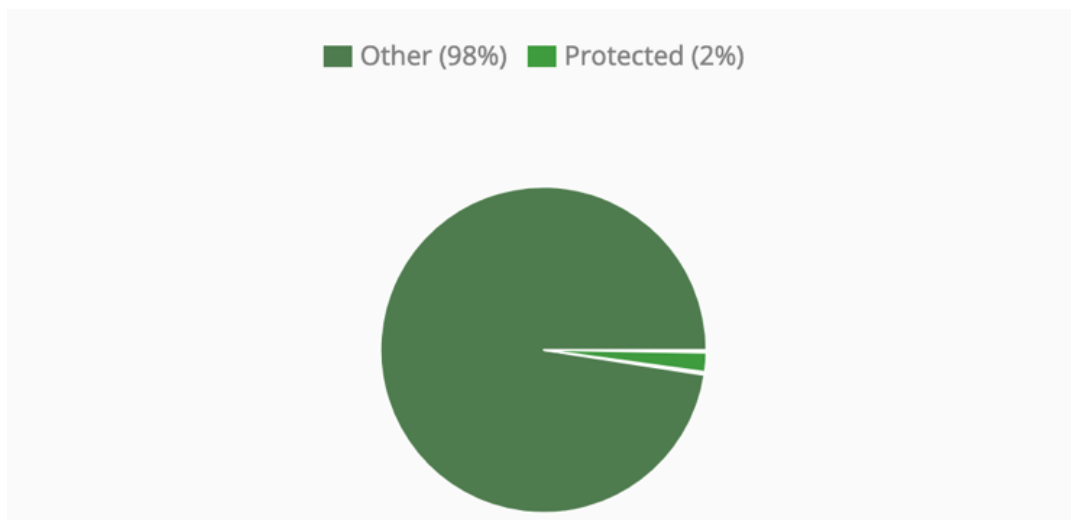


Source: Uruguay Native Forest National Cartography (2024)

The difference between the two forest cartography's exercises produced shows a growth of 1.42% in native forests in Uruguay.

Only 2% of the forest area of Uruguay is with protected areas, which demonstrates the high need to work with the private sector through good incentive and control mechanisms to preserve native forests.

Figure 7. Uruguay Forest area within protected areas, 2020, % total forest area



Source: FAO-FRA Platform

Uruguay is a biodiverse ecosystem, which is associated with the Pampa and Chaco biomes. Although the surface area is small, native forests have great economic, ecological and social importance for the country. According to the **National Forest Registry** of the **Forestry Directorate**¹ of MGAP, during 30 years of native forest management, the surface area has increased. According to FAO, exceptionally at a regional level, Uruguay, along with Costa Rica and Chile, has an increase in native forest.

As described in the **National Native Forest Strategy** (ENBN by its acronym in Spanish), forest ecosystems are a relevant source of biological diversity. In their botanical composition, 136 tree species and 150 shrub species were identified, and nearly 50% of the birds and mammals identified in Uruguay live in the different native forests.

The floristic composition of Uruguayan forest formations varies according to the area of the country, from 15-20 species in riparian forests in the center of the country (Durazno, Florida), to 50-60 species in forests associated with the margins and adjacencies of the Uruguay River, or in heterogeneous environments such as the systems of ravines and flat hills of the department of Rivera.

In general terms, the mountain and riverine forests have the greatest coverage; the former develops mainly in the eastern strip (from south to north), while the latter occurs throughout the country, in a homogeneous manner. The park ("*algarrobal*") is scarce and limited to the western coast and the palm grove is restricted to two main nuclei, located in the basin of the Laguna Merin (*Butia odorata*) and in the particular soils of Río Negro, Paysandú and Salto (*B. yatay*). The coastal, or psammophilous, is strongly fragmented, with relics on the coast of La Plata and the Atlantic.

The most common classification in the country, although it is not a formal classification, divides them according to their topographic position and soil conditions as follows:

- **Riparian, gallery, or fluvial forests:** The riverine forest is the most abundant type of native forest in Uruguay, which accompanies rivers and streams. Its presence and development depend fundamentally on the physical environment, which are the flow and alluvial soils. It is characterized

¹ <https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/direccion-general-forestal>

by a high number of shoots and few monopodial trees; due to having suffered human interventions for firewood in different degrees of felling and alteration.

- **Bosque serrano:** The mountain forest is associated with the highest topography in the country, covering different sectors of the mountain ranges and ridges. It generally grows on superficial soils and is made up of species that can withstand periods of water scarcity.
- **Bosque de parque:** The park forest is located in areas close to the coast of the Uruguay River, as a transition between the riverine forest and the herbaceous communities. These are xerophytic associations with a low density of individuals.
- **Bosque de quebradas:** The quebrada forest grows in humid areas with drastic topographic conditions (steep slopes) in the north and northeast of the country. It has subtropical characteristics, that is, a high density of tall species.
- **Palmares:** The palm groves in Uruguay are recognized for their landscape, cultural and biodiversity value. There are two communities in the country: in the east of the country where the largest concentrations occur; and on the west coast. In the Palmares of the eastern region (*Butia odorata*), the absence of palms in the establishment phase and in the adult vegetative phase is almost total, so it is made up only of adult individuals with ages between 200 and 300 years. On the coast the species is *Butia yatay*.
- **Psammophilous forest – Bosque costero:** The coastal forest is characterized by its woody plant formations located in dunes on the La Plata and Atlantic coast on the banks of the Río de la Plata and the coast of the Atlantic Ocean.

Some of the challenges involved in mapping native forests in Uruguay are:

- the small relative surface area they occupy in relation to the total territory,
- confusion with forest plantations of exotic species, both commercial and non-commercial,
- the low density of trees in some cases (“*bosque de parque*”), and
- the fragmentation and distribution in “patches” of certain forests (“*bosques serranos*”).

In turn, there is a certain similarity in the spectral response of some native forests (mainly in riparian areas) with that of certain wetlands in the country, which makes their discrimination even more difficult using remote sensing techniques.

Regarding forest ownership, more than 95% of Uruguay's forests are located on privately owned land, where various agricultural and livestock production activities are carried out. The latter have different interactions or impacts on the different forests.

REGULATORY FRAMEWORK / REVIEW OF DEFORESTATION-RELATED REGULATIONS

National Regulations

Article 47 of the National Constitution of Uruguay (1830 enacted – 1997 amended) establishes that “*the protection of the environment is of general interest. People must refrain from any act that causes serious depredation, destruction or contamination of the environment.*”

The approval of the first **Native Forestry Registry**² imposed by Law 5.649 in 1967, by which producers declare their forests obtaining tax exemptions, and the establishment of the **General Forestry Directorate** (DGF, acronym in Spanish) by the Law 13.320 in 1964 within the Ministry of Livestock and Agriculture were two milestones in the development of the sector.

The Native Forestry Registry³ is an administrative act carried out by the DGF that quantitatively and qualitatively determines the types of forests that exist according to the technical studies carried out in the rural establishment. The utility for the producer is in the tax benefits (exemptions resulting in a system of annual ecosystem service payments) and for the country in having knowledge of the forest resource. The producer owner of the native forest must hire a private technician to carry out the primary studies. For each plot of land, the type of forest, the state and degree of intervention, the presence of exotic and native species, and the generation rate must be shown. The certificate has annual validity.

Consequently in 1968, Uruguay's **first Forest Law**, N° 13.723, was approved, which sought to stimulate the planting of trees with tax benefits.

Since the approval of the second and current **Forestry Law 15.939** in 1987, the Forestry Policy of Uruguay focuses on two objectives: a) the conservation of native forests and b) the expansion of the forest base through the promotion of forest plantations. Article 24 of the law prohibits any operation that threatens the native forests, except when the logging is for domestic use by the establishment, or when there is authorization from the DGF.

Decree 247/989, article 3 establishes tax benefits for establishments with a surface area occupied by native forest, constituting this one of the first measures established to protect it.

At the same time, in 1990, the **Ministry of Housing, Territorial Planning and Environment** (MVOTMA acronym in Spanish) was created in Uruguay through Law 16.112, demonstrating that from an early date territorial planning is a strategic objective of Uruguay.

Decree No. 452/988 and Decree No. 24/993, which modifies the previous one, expands the cases in which, due to the site's conditions suitable for agricultural activity, logging permits may be authorized. *"In lands with capacity for agricultural use corresponding to plains and undulating terrain, not susceptible to flooding, the General Directorate of Renewable Natural Resources may authorize logging, in cases where the forest limits its best use and there are no reasons of conservation of tree communities or species, maintenance of ecosystems or reasons of general interest."* Only in exceptional cases is clear-cutting permitted, subject to inspection and authorization by the DGF:

- 1) in areas of forest development where the first species to colonize is the *espinillo* and due to the characteristics of the slope and the soil this practice would not entail a risk of erosion,
- 2) in secondary forest areas that are not observed in the SGM aerial photos from 1966-1967 and
- 3) construction of bridges and roads respecting the ecological integrity of the forests in the management plan.

Decree No. 330/993 establishes that the logging and extraction of forest products from native forests must be carried out with prior authorization from the DGF. For this purpose, interested parties must apply for a **Use and Management Plan** (PMUS, acronym in Spanish) accompanied by a technical report signed by an agronomist or forestry technician, written according to the form that the DGF provides, which will establish, among others, the reasons that justify the logging and the exploitation plans to be carried out.

² <https://www.gub.uy/tramites/registro-bosque-nativo>

³ Resolution No. 781/024 establishes the requirements that currently determine the registration of native forests in Uruguay.

The plans must consider the property’s soil characteristics, management practices, crop sequences, and tolerable erosion levels. PMUS plans serve as tools to promote sustainable production systems in terms of soil conservation. Their main goal is to ensure that land use aligns with its capacity. Producers cultivating 50 or more hectares of any type of agricultural or agro-livestock rotations, regardless of their purpose, as well as planted pastures requiring mechanical labor for implementation, are required to submit a PMUS. Prior to requesting the sustainable use of native forests, their registration must be approved.

Table 3. Native Forest management model - Uruguay

Native forest management model - Uruguay			
Registry	Management Plan	Technical assessment	Check/Control
Sworn declaration	Technical Report	Technical staff DGF	Inspection 300 USD
Technical report	Notarial certification	DGF Resolution	Transit Guide 30 USD
Notarial certification	Forest Map	Forest Map	
Measurement Plan	Zoning of wooded areas		
Forest Map			
Certificate 30 USD			

Any improper cutting of native forest can be reported by individuals using virtual forms to the General Forestry Directorate⁴.

The transit of more than 1,500 kilograms of forest products from native forests must be accompanied by the transit guide issued by the DGF, which will be valid for a single movement and may only be used within 3 days following its issue by the sender. The collectors from native forests products will be required to register with the DGF and submit sworn statements of stocks in the periods established in the Decree.

In general, this law declared the protection, improvement, expansion, and creation of forest resources (**Forest Fund**), as well as the development of forestry industries, to be of national interest. As a general condition, the Law 15.939 imposed the **ban of deforestation of native forests in Uruguay**.

Uruguay is one of the few countries in the region where native forest area is currently growing, primarily due to the prohibition of logging since 1987, with exceptions for clearing perimeter fences or when forest owners submit a PMUS to the DGF for review and approval. This regulation aligns with the enactment of the Forestry Law and the historical location of forests in areas of low interest for agricultural activities.

Consequently, the Native Forest Registry and the Use and Management Plan Applications make up the **National Forest Information System in Uruguay**.

In 1994, Law 16.466, the **Environmental Impact Assessment Law**, and its regulatory Decree (originally, Decree 435/994, of September 21, 1994), was passed, establishing a system for the early identification and assessment of the environmental consequences of relevant projects not yet implemented. The law aims to eliminate, mitigate or compensate for the negative environmental impacts of activities or projects (including forest plantations of more than 100 hectares), making the approval of these initiatives subject to obtaining a set of authorizations, the most important of which is the Prior Environmental Authorization (AAP). In 2005, Decree 435/994 was replaced by Decree 349/005, known as the **Regulation on Environmental Impact Assessment** and Environmental Authorizations (REIA/AA), maintained and improved

⁴ <https://www.mgap.gub.uy/solicitudforestal/denunciacorta.aspx>

the provisions relating to the Prior Environmental Authorization (AAP) and incorporated three other environmental management instruments, namely: the Environmental Feasibility of Location (VAL), the Environmental Authorization of Operation (AAO) and the Special Environmental Authorization (AAE), which complemented the AAP.

Registration, as an incentive, grants tax benefits to landowners, including exemptions from property tax, primary tax, net wealth tax, corporate income tax (IRAE), and rural employer contributions. As a result, deforestation is not a significant issue in Uruguay. To enforce these incentives, the Forestry Fund was created, administered by the Honorary Commission of the Forestry Fund under the Ministry of Livestock, Agriculture, and Fisheries (MGAP), and financed through public funds. The promotion scheme remained in effect until regulatory changes were introduced in the 2000s.

The primary change in the incentive scheme was the elimination of subsidies, with a phased reduction in support over several years until subsidies were completely removed in 2005 for forestry projects presented after that date. The 2007 tax reform eliminated exemptions on net wealth tax (IP), and forestry activities became subject to income tax (IRAE) for projects implemented after July 1, 2007, except for those producing high-quality timber or classified as protective forests. Similarly, exemptions for rural property tax (CIR) were eliminated, with the same exceptions as those for IRAE.

Despite these changes, systematic and automated mapping of native forests remains a technical challenge for the country due to the significant variability in forest density, the fragmented nature of forests into small patches, and the presence of woody formations with a high proportion of shrubs.

In 2000 the creation by the law 17.234 and management of a **National System of Protected Natural Areas** (SNAP by its acronym in Spanish) is declared to be of general interest, as an instrument for the application of national environmental protection policies and plans. The SNAP law was regulated by Decree No. 52/005 of February 16, 2005. The SNAP law establishes the following specific objectives:

- protect biological diversity, ecosystems, natural habitats, especially those essential for the survival of endangered species,
- prevent the deterioration of watersheds and ensure the quality and quantity of water,
- develop forms and methods of sustainable use and exploitation of biological diversity and natural habitats, ensuring their potential for the benefit of future generations.

The SNAP⁵, developed and implemented by the MVOTMA in 2005 covers approximately 35,000 hectares belonging to the forest ecosystem (3,5% of the total native forest in the country). 13 of the 14 protected areas currently included in the System have native forests as their object of conservation.

⁵ <https://www.ambiente.gub.uy/oan/sistema-nacional-de-areas-protegidas/>

Figure 8. National System of Protected Natural Areas Uruguay



Source: SNAP

By 2010, the protected areas were as follows: Cabo Polonio, Farrapos Wetlands and Islands of the Uruguay River, Rocha Lagoon, Chamangá Rock Art Site, Quebrada de los Cuervos, San Miguel, and Lunarejo Valley. By 2015, the following were added: Santa Lucía Wetlands, Montes del Queguay, Rincón de Franquía, Garzón Lagoon, Cerro Verde, and the Wetlands and Carob Groves of the Uruguay River.

In 2000, Law 17.283 on **Environmental Protection** was also passed. The Law declares the following to be of general interest, in accordance with the provisions of Article 47 of the Constitution:

- The protection of the environment, air quality, water, soil and landscape,
- The conservation of biological diversity,
- The prevention, elimination, mitigation and compensation of negative environmental impacts,
- The formulation, implementation and application of the National Environmental Policy and Sustainable Development.

Based on this law, Uruguay has a legal framework that allows for the harmonization of national policies and the main instruments of environmental management and administration.

The country's territorial planning guidelines, defined in the **Territorial Planning and Sustainable Development Law** approved in 2008 (Law No. 18,308), provide an institutional framework for planning and environmental management of the territory, providing a legal context and instruments to address with a medium and long-term vision the actions of social and economic development, socio-territorial integration in its multiple dimensions, the transparency of the decision-making processes on the use and occupation of the territory.

In 2009, the **National Climate Change Response System (SNRCC)** was created by Executive Decree No. 238 of 2009. The creation of the SNRCC allowed for the creation of a horizontal coordination area for institutions related to climate change issues, as well as the design of the National Climate Change

Response Plan, the approval of the National Climate Change Policy, the development of the Long-Term Strategy for development with low greenhouse gas emissions (ECLP), the Nationally Determined Contributions (NDC) and the creation of the domestic programming, monitoring, reporting and verification system (pMRV).

In 2015 Uruguay established a **SNAP Strategic Plan 2015-2020**. In the Strategic Line IV: Conservation for a healthy productive landscape the plan stipulates

- 100% of the land use and management plans in protected areas entered the SNAP, consider the proposals for the management plans of the areas.
- 100% of the native forest surface in protected areas is registered and in conditions to receive tax benefits.
- 100% of the forest producers in protected areas consider conservation criteria in grasslands and native forests.

In April 2016, the **National Biodiversity Strategy 2016-2020** was published. The main objective of this law is to preserve biological diversity and use it sustainably. To achieve this, it seeks to:

- Reduce the rate of loss and degradation of the main ecosystems in our country.
- Promote strategies and practices for the sustainable use of biological diversity and natural resources in general.
- Control the expansion of the main invasive exotic species identified in the national territory.
- Develop mechanisms to improve management and use of knowledge related to biological diversity.
- Review national regulations on biological diversity and strengthen enforcement mechanisms.

Uruguay made official its **National Climate Change Policy** in 2017. Consequently, the **REDD+ Program** began to be implemented in the country.

In 2018 the **National Native Forest Strategy** was established as a strategic guide for the DGF to fulfill its functions within the legal framework of Uruguay, and for other institutions according to their competencies. The strategy is understood as a national strategy led by the DGF in cooperation with key actors from the private and public sectors and with civil society. This new Strategy is complementary to the National Biodiversity Strategy and the REDD+ Program was included within this strategy with specific goals towards the reduction of emissions resulting from degradation and deforestation.

The strategic planning for the management of the Native Forest of the General Directorate of Forestry stipulates:

- the conservation of the native forest,
- allowing sustained use,
- preserving genetic diversity and
- maintaining ecological processes and essential vital systems.

In the medium term, the aim was to obtain management techniques that would allow the protection of the majority (80%) of the native forests as an area of prohibited extraction. The short-term objective of the current strategy consists of meeting the internal needs of the rural establishment for use and the demand for firewood in the market, as well as the competition for the use of the land, carrying out the maximum possible control for the protection of the resource.

The results were:

- the establishment of management plans for the native forest,
- the development of institutional capacity,
- the development of protection and control systems,
- the promotion of research into management techniques and production levels and
- the promotion of financing for the management of conservation of the native forest, through the assistance of national and international funds.

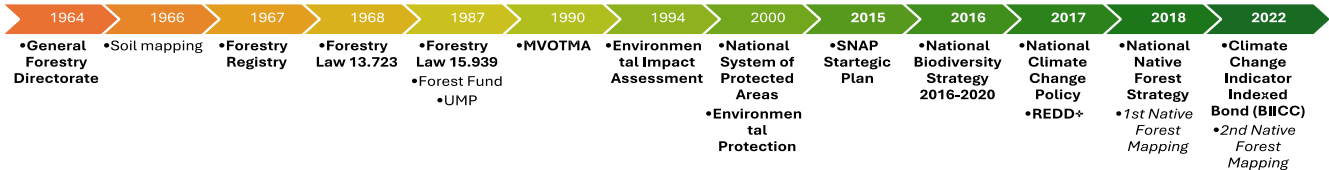
In the Fifth National Communication, in 2019 and as part of an inter-institutional participatory process, the **National Environmental Plan for Sustainable Development** was approved. This plan is presented as a strategic instrument to advance the protection of the environment in all its dimensions, considering social, economic, and ecological systems in an integral manner. In turn, Law No. 19,717, published in January 2019, declares of general interest *"the promotion and development of production, distribution and consumption systems of agroecological-based products, both in their natural and processed state, with the objective of strengthening sovereignty and food security, contributing to the care of the environment, in order to generate benefits that improve the quality of life of the inhabitants of the Republic"* and creates a national honorary commission whose objective is to prepare, coordinate the implementation and monitor the execution of the National Plan for the Promotion of Production with Agroecological Bases.

In 2020, the **Ministry of Environment of Uruguay** was created by Law No. 19,889, incorporating the environmental powers assigned by law to the former MVOTMA. The new ministry is responsible for the execution of national environmental policy, environmental management, sustainable development, and the conservation and use of natural resources.

To date, there is no comprehensive and publicly accessible database to locate sites where logging has been authorized or to identify their surface area. Uruguay has conducted exhaustive mappings of various environmental dimensions through aerial photo interpretation since 1966. However, it does not currently publish annual open-access reports or operate an early deforestation alert system.

To date, there are 2 exercises of **national forest mapping of native forests** for the years 2022 and 2016/2018, prepared by the General Forestry Directorate (DGF) of the Ministry of Livestock, Agriculture and Fisheries (MGAP) and the National Directorate of Climate Change (DINACC) of the Ministry of Environment (MA). For this purpose, Sentinel 2 images were used.

Figure 9. National Forest Regulations Uruguay



An important point to mention is that Uruguay issued a **Climate Change Indicator Indexed Bond (BIICC)** this year, whose key indicator is the performance of native forests (KPI-2). This KPI (KPI-2) is based on estimates of the area of native forest (measured in hectares), through the application of satellite mapping and remote sensing techniques, following the relevant provisions of the Intergovernmental

Panel on Climate Change (IPCC, 2006) and the IPCC Good Practice Guide (IPCC, 2003). The methodologies used to calculate the performance of the KPIs will be the same as those used by Uruguay to report progress data on the Nationally Determined Contributions (NDC) to the United Nations. The framework for the issuance of the BIICC was jointly prepared by the Ministry of Economy and Finance (MEF), the Ministry of Industry, Energy and Mining (MIEM), the Ministry of Foreign Affairs (MRE), the MA and the MGAP. It constitutes the cornerstone for Uruguay's access to the sustainable sovereign finance market and, more generally, seeks to pioneer an alternative approach to financing sustainability-linked debt.

The BIICC issue was completed on October 20, 2022, and received an excellent response from international financial markets. The total issue was USD 1.5 billion, of which USD 1 billion was in exchange for cash and the remaining USD 500 million was used to repurchase other securities with maturities close in time (2024, 2027, and 2031). The total demand for the instrument was almost three times higher than expected. The bond matures in October 2034 and is amortizable in three annual payments, in 2032, 2033, and 2034. From the perspective of the sovereign financing strategy, this novel tool made it possible to diversify and expand the pool of investors in the country's debt securities. On November 6, 2023, the government executed the reopening of the global BIICC in dollars with a final maturity in 2034, for an amount of 700 million dollars. The government managed to obtain a significant volume of financing, thus completing the funding program in the international market for 2023. Demand far exceeded the amount issued, and the transaction allowed the government to continue diversifying and expanding its investor base by accessing other markets and investors focused on sustainability objectives. It also contributed to giving visibility to Uruguay's climate action strategy and its sustainable development. Along the same lines and seeking to deepen the synergy between financing and sustainability, in October 2023 the Government of Uruguay and the World Bank agreed on the terms of a multilateral Loan Agreement that, for the first time, reward compliance with climate objectives, associated with the commitments assumed by the country in the Paris Agreement, with a significant reduction in the interest rate.

International Commitments

Uruguay has signed and ratified the main international agreements on climate change, which provides a framework for planning, the development of public policy instruments and climate actions at the national level and involving all sectors of society. Below is a review of its key areas of participation and abstentions:

United Nations Framework Convention on Climate Change (UNFCCC)

Uruguay ratified the UNFCCC on August 18, 1994, the Kyoto Protocol on 2000 and the Paris Agreement on October 19, 2016, by approving Law No. 19.439, committing to reducing greenhouse gas emissions through its Nationally Determined Contributions (NDCs)⁶. It came into force on November 4, 2016. Consequently, Uruguay developed and approved its National Climate Change Policy (PNCC) in 2017, submitting its first NDC in the same year and in 2022 the second NDC⁷. Additionally in 2023 Uruguay presented its 6th NC⁸ and its National Greenhouse Gas Inventory⁹. Its climate action focuses on renewable energy expansion, sustainable agriculture, and forest management.

⁶ <https://unfccc.int/es/node/61232>

⁷ <https://unfccc.int/sites/default/files/NDC/2022-12/Uruguay%20Segunda%20CDN.pdf?download>

⁸ <https://unfccc.int/sites/default/files/resource/2023-12-28%20Uruguay%206CN%20ESP.pdf?download>

⁹ <https://unfccc.int/sites/default/files/resource/2023-12-28%20Uruguay%20NID%201990-2020%20ESP.pdf?download>

At COP26 in Glasgow (2021), 145 world leaders representing 91% of the global forest estate committed to “halt and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural transformation”. Uruguay is part of this commitment.

Convention on Biological Diversity (CBD)

Uruguay has been a party to the CBD since 1994 through ratification, demonstrating its commitment to biodiversity conservation. It joined the Cartagena Protocol on Biosafety in 2012 and the Nagoya Protocol on Access and Benefit-sharing in 2014, both through ratification, further reinforcing its dedication to international agreements on environmental protection and genetic resource management. However, Uruguay is not a party to the Nagoya–Kuala Lumpur Supplementary Protocol on Liability and Redress¹⁰.

Protected areas have been expanded as part of its biodiversity strategy. One of the main initiatives is the National Strategy for the Conservation and Sustainable Use of Biological Diversity 2016-2020, designed to fulfill commitments made as a Party to the United Nations Convention on Biological Diversity. This strategy establishes national policies for the management of ecosystems, species, and genetic resources, promoting the conservation and sustainable use of biodiversity. Additionally, Uruguay has developed the National System of Protected Areas (SNAP, acronym in Spanish) by the Law 17.234 (2000) and the Decree 52/005 (2005), which includes various zones dedicated to the preservation of natural ecosystems and the species that inhabit them.

Montreal Process¹¹

The Montréal Process Working Group (MPWG) was launched in 1994 and immediately set about the task of developing a set of criteria and indicators for Sustainable Management to cover the temperate and boreal forests within its member countries. Uruguay is part of the so-called Montreal Process and presented its national report in 2003.

The member countries occur in five of the seven continents and together represent about 90 per cent of the world's temperate and boreal forests, as well as areas of tropical forests, and 60 per cent of the world's forests. The group works, through a policy level Working Group and a Technical Advisory Committee, to advance the development and implementation of internationally agreed criteria and indicators for the conservation and sustainable management of temperate and boreal forests (outside Europe) at the national level.

UN Convention to Combat Desertification (UNCCD)

Uruguay ratified the UNCCD on **June 12, 1995**, and has implemented programs to manage soil degradation and promote sustainable land use practices, particularly in its extensive cattle grazing systems.

As an example, one of the main programs is the Responsible Soil Use and Management Plans (PUMRS) program, which requires agricultural producers to submit detailed plans ensuring appropriate manage-

¹⁰ <https://www.cbd.int/countries?country=uy>

¹¹ <https://montreal-process.org/>

ment practices to prevent soil erosion and degradation. This program, overseen by the General Directorate of Natural Resources of the MGAP, has positioned Uruguay as a global leader in natural resource conservation.¹²

Another notable initiative is the Livestock and Climate Project, implemented by MGAP with technical assistance from the FAO. This project aims to increase livestock productivity sustainably, restore degraded lands, and contribute to climate change mitigation. By adopting climate-smart livestock practices, the project has improved production while reducing greenhouse gas emissions¹³.

Additionally, the Sustainable Pasture-Based Agriculture Program (PAS) promotes the use of improved pastures and crop rotation in extensive livestock systems, that seeks to increase productivity and prevent soil erosion by integrating crops with pastures in mixed systems to enhance soil fertility and ensure sustainable use of natural resources.

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

Uruguay is a member of CITES, which regulates international trade in endangered species to prevent their exploitation. Uruguay became a Party to the agreement through ratification on 2 April 1975, with the agreement entering into force on 1 July 1975¹⁴.

The Red List Index of species survival for Uruguay is 0.91 (on a scale where 0 is worst and 1 is best), indicating that the country's species are relatively less threatened compared to global averages. This score reflects moderate stability in biodiversity, with fewer species at risk of extinction compared to other nations.

Ramsar Convention

Uruguay ratified the Ramsar Convention on January 22, 1984, with the agreement entering into force on September 22, 1984, and has designated three wetlands of international importance, covering a total area of 435,837 hectares, to protect critical ecosystems¹⁵.

The three wetlands in Uruguay include Bañados del Este y Franja Costera, covering 407,408 hectares and recognized as one of the most extensive and diverse wetland systems in South America; Esteros de Farrapos and Islands of the Uruguay River, incorporated into the Ramsar list in 2004 and spanning approximately 17,496 hectares; and Laguna de Rocha, added to the Ramsar list in 2015, encompassing around 11,000 hectares.

United Nations 2030 Agenda for Sustainable Development

Uruguay has embraced the Sustainable Development Goals (SDGs), focusing on goals related to environmental conservation, sustainable agriculture, clean energy, and climate action. SDG 15, "Life on Land," is particularly relevant to its forest and biodiversity conservation efforts.

¹² <https://rurales.elpais.com.uy/agro/uruguay-un-referente-mundial-por-su-rigurosidad-en-el-manejo-de-suelos-y-agua>

¹³ <https://www.fao.org/uruguay/noticias/detail/es/c/1190143/>

¹⁴ <https://cites.org/eng/parties/country-profiles/uy>

¹⁵ <https://www.ramsar.org/es/country-profile/uruguay>

Uruguay is making progress toward achieving the Sustainable Development Goals (SDGs), ranking 34th out of 167 countries in the 2024 SDG Index, with an overall score of 77.1, above the regional average for Latin America and the Caribbean¹⁶.

Uruguay faces both progress and challenges under SDG 15. The mean area of terrestrial sites important to biodiversity under protection is 23.3%, while for freshwater sites it is 28.3%, reflecting conservation efforts. Uruguay has a high rate of imported deforestation, measured at 16.4 m² per capita, which points to significant environmental externalities embedded in its consumption and trade patterns.

While the country demonstrates stability in species survival, some gaps remain in expanding protected areas and addressing deforestation driven by international trade. These challenges underline the need for policies to ensure sustainable land use, conservation measures, and better alignment of trade practices with environmental goals.

Bonn Challenge¹⁷

The Bonn Challenge is a global goal to bring 150 million hectares of degraded and deforested landscapes into restoration 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.

At the moment, there are 61 countries involved by 64 pledges made. 29 countries are from America being Uruguay part of it with an area of 200,000 ha involved. This pledge also belongs to the Initiative 20x20¹⁸¹⁹.

New York Declaration on Forest (NYDF)²⁰

The New York Declaration is supported by 38 national governments (the European Union, the United States, Central America and African Countries), 20 subnational governments of more than 50 of the largest companies worldwide and over 50 influential organizations of civil society and indigenous populations. The goal of the NYDF is 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. The 2024 Assessment concluded that the world is 45% off track from halting deforestation by 2030.

Uruguay has not endorsed the NYDF.

¹⁶ <https://dashboards.sdgindex.org/profiles/uruguay>

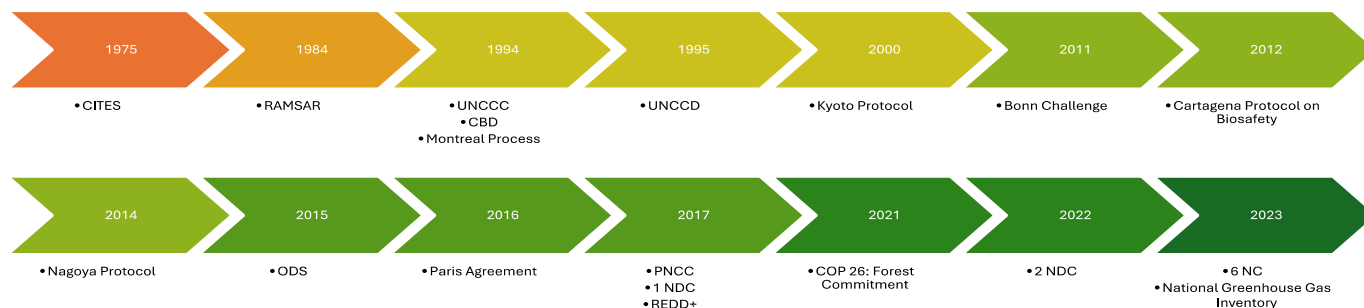
¹⁷ <https://www.bonnchallenge.org/>

¹⁸ <https://initiative20x20.org/>

¹⁹ <https://initiative20x20.org/regions-countries/uruguay>

²⁰ <https://forestdeclaration.org/>

Figure 10. Uruguay International Commitments Native Forest related

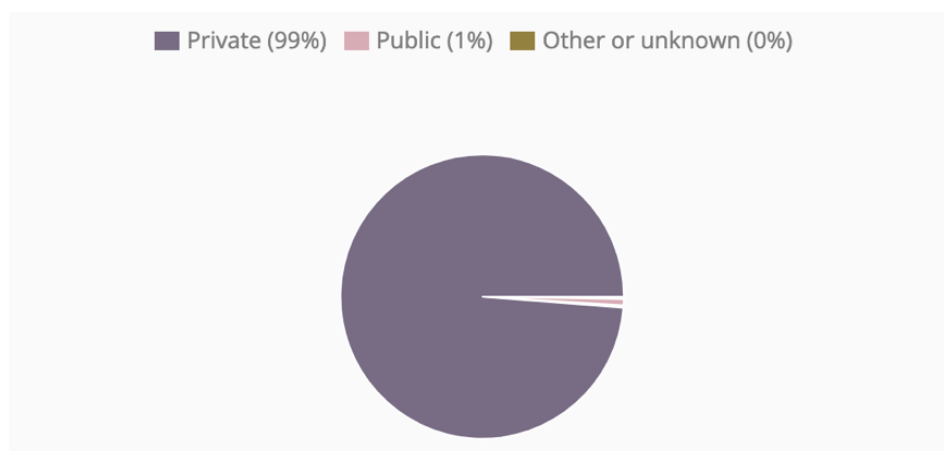


THE DEFORESTATION EVOLUTION IN URUGUAY (2001-2023)

According to the National Forest Registry of the Forestry Directorate of the MGAP, **during 30 years of native forest management, the surface area has increased**; more than 4,300 forests have been registered, which provides information and background for some 580,000 hectares; the wood is marketed - after implementing management plans- with permits (transit guides) by the General Forestry Directorate. The country has more and better information on the state of its native forests prior to the 1987 Law.

However, the state and vitality of native forests at a national level have not been accurately assessed due to **the lack of continuous monitoring of fragmentation, deforestation, and degradation**. In Uruguay, practically 100% of native forests (in itself the planted forest also) are located on privately owned land. Public ownership amounts to only 13,540 ha in 2015, according to FAO-FRA Platform.

Figure 11. Uruguay Forest Ownership % (2025)



Source: FAO-FRA

The last Agricultural Census corresponds to the year 2010, so for the year 2015 the same data on the ownership of forests by the State is maintained. Private Property is not disaggregated by individuals or private institutions. In Uruguay there are no indigenous communities living off the forests.

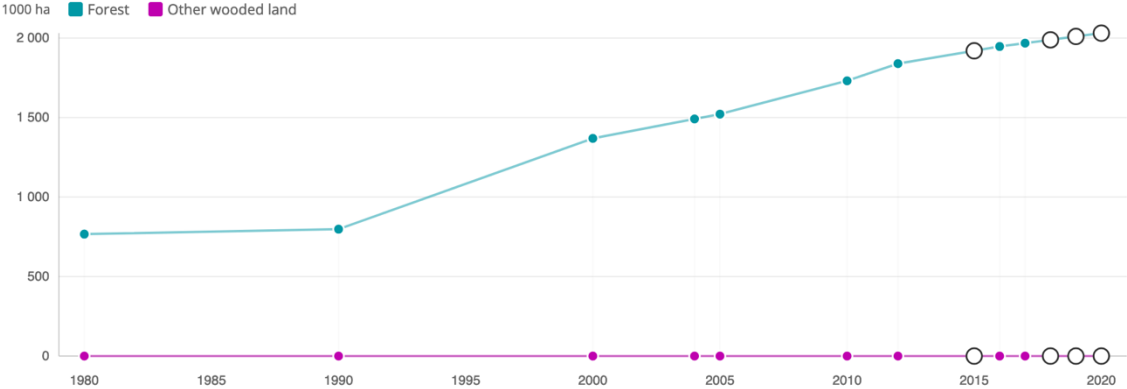
Therefore, some challenges remain, such as **loss of forest area** in some areas and types of forests (park forests, palm groves, psammophilous forests) that are threatened or in a relict state, **threats from invasive exotic species (IAS), degradation due to pressure from livestock, fires and soil erosion, and illegal deforestation**. On the other hand, there are advances in native forests on lands with fewer

sheep stocks, and it has not been defined how to deal with the advances in a balanced way between commercial interest (grassland) and environmental interest (forest-grassland).

FAO – FRA^{21 22} 2020 Reporting Tables - Uruguay

Forest definition: Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds *in situ*. It does not include land that is predominantly under agricultural or urban land use.

Figure 12. Extent of forest and other wooded land Uruguay



FRA 2020 categories	Area (1000 ha)												
	1980	1990	2000	2004	2005	2010	2012	2015	2016	2017	2018	2019	2020
Forest (a)	767.00	798.00	1 369.00	1 491.30	1 521.80	1 731.30	1 839.00	1 920.00	1 947.00	1 968.00	1 989.00	2 010.00	2 031.00
Other wooded land (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other land (c-a-b)	16 735.00	16 704.00	16 133.00	16 010.70	15 980.20	15 770.70	15 663.00	15 582.00	15 555.00	15 534.00	15 513.00	15 492.00	15 471.00
Total land area (c)	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00	17 502.00

Annual forest expansion, deforestation and net change

FRA 2020 categories	Area (1000 ha/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Forest expansion (a)			36.89	39.57
...of which afforestation			35.00	18.40
...of which natural expansion			0.56	17.51
Deforestation (b)			0.66	1.83
Forest area net change (a-b)	57.10		36.23	37.74
				22.20

For the period 1990-2000 there are no digitalized records of deforestation at the national level.

For the periods 2000-2010 and 2010-2015 for the deforestation category, both the areas that have authorization for cutting (management plans) and the loss of areas due to illegal activities (illegal cutting) are included. The cutting authorizations vary between cutting permits for forest advances, opening of roads at the property level and cutting permits in those forests that occupy areas that were formerly part

²¹ <https://fra-data.fao.org/assessments/fra/2020/URY/home/overview>

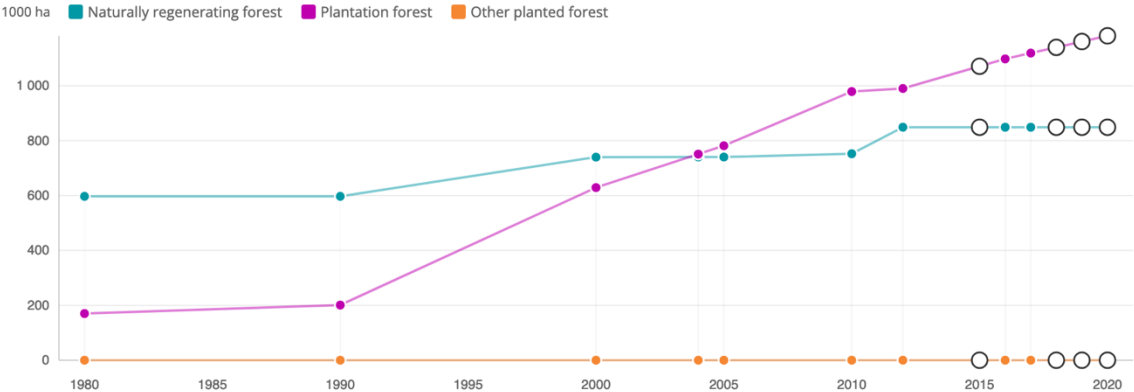
²² FAO has been monitoring the world’s forests at 5-to-10-year intervals since 1946. The Global Forest Resources Assessments (FRA) are now produced every five years in an attempt to provide a consistent approach to describing the world’s forests and how they are changing. The Assessment is based on two primary sources of data: Country Reports prepared by National Correspondents and remote sensing that is conducted by FAO together with national focal points and regional partners.

of other ecosystems (for example: grasslands). These can be made up of a single native species or be mixed, occupied by both native and exotic species. Per year, the authorizations for cutting on the surface represent between 10-15% for forest advances, between 15-20% for roads (opening of roads) and between 70-80% for mixed forests.

For the period 2010-2015, it is estimated that on average the surface area of illegal activities was 246.7 hectares per year. The difference with the deforestation data in the table is because areas under management plans are included.

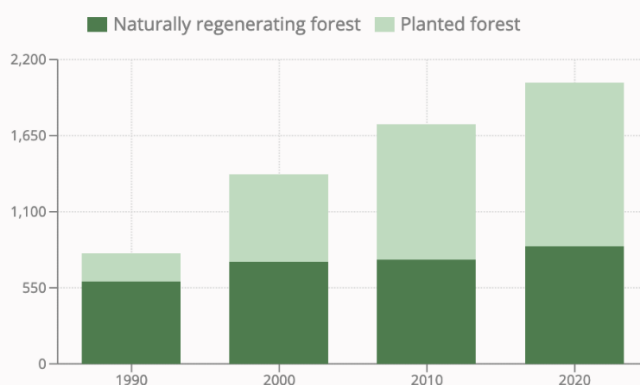
For the period 2015-2018, there is no updated information available that would allow projections to be made.

Figure 13. Uruguay Forest Characteristics



FRA 2020 categories	Forest area (1000 ha)												
	1980	1990	2000	2004	2005	2010	2012	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)	597.00	597.00	740.00	740.30	740.30	752.20	849.00	849.00	849.00	849.00	849.00	849.00	849.00
Planted forest (b)	170.00	201.00	629.00	751.00	781.50	979.10	990.00	1 071.00	1 098.00	1 119.00	1 140.00	1 161.00	1 182.00
Plantation forest	170.00	201.00	629.00	751.00	781.50	979.10	990.00	1 071.00	1 098.00	1 119.00	1 140.00	1 161.00	1 182.00
...of which introduced species	170.00	201.00	629.00	751.00	781.50	979.10	990.00	1 071.00	1 098.00	1 119.00	1 140.00	1 161.00	1 182.00
Other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (a+b)	767.00	798.00	1 369.00	1 491.30	1 521.80	1 731.30	1 839.00	1 920.00	1 947.00	1 968.00	1 989.00	2 010.00	2 031.00

Naturally regenerated and planted forest area, 1990 - 2020, 1 000 ha



Primary forest and special forest categories

FRA 2020 categories	Area (1000 ha)				
	1990	2000	2010	2015	2020
Primary forest	239.00	296.00	301.00	340.00	340.00
Temporarily unstocked and/or recently regenerated					
Bamboos					
Mangroves	0.00	0.00	0.00	0.00	0.00
Rubber wood	0.00	0.00	0.00	0.00	0.00

Growing stock

FRA 2020 categories	Growing stock m ³ /ha (over bark)									
	1990	2000	2010	2015	2016	2017	2018	2019	2020	
Naturally regenerating forest	107.18	107.18	107.18	107.18	107.18	107.18	107.18	107.18	107.18	107.18
Planted forest	116.82	116.06	127.57	124.74	121.49	120.02	116.23	113.35	111.00	
...of which plantation forest	116.82	116.06	127.57	124.74	121.49	120.02	116.23	113.35	111.00	
...of which other planted forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Forest	109.61	111.26	118.71	116.98	115.25	114.48	112.37	110.75	109.40	
Other wooded land										

Global Forest Watch²³²⁴

Primary Forest: Primary forests are those that have not been cleared or degraded by human activity in recent history and thus do not include recently reforested areas.

Tree cover: All vegetation greater than 5 meters in height and may take the form of natural forests or plantations across a range of canopy densities. Unless otherwise specified, the GFR uses greater than 30 percent of tree canopy density for calculations.

Tree cover loss: The removal or mortality of tree cover, which can be due to a variety of factors, including mechanical harvesting, fire, disease, or storm damage. As such, loss does not equate to deforestation.

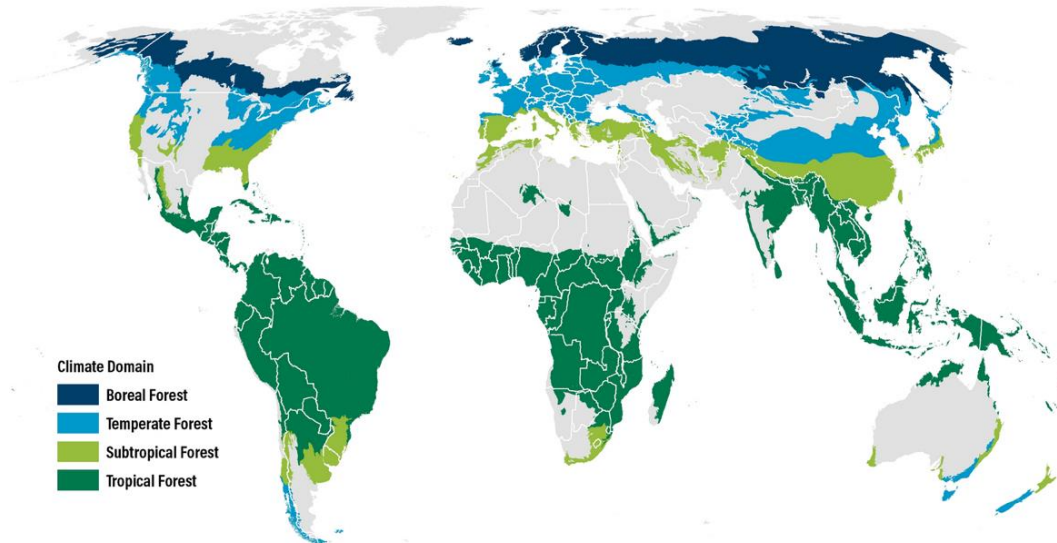
Forest gain: aims to monitor the total land area that has transitioned from an unforested to a forested state in a given period of time. The indicator currently measures tree cover gain as a best-available proxy for forest gain. Tree cover gain includes natural regeneration and gain from restoration interventions, as well as gain from planted forests and tree crops, which are not typically considered forests.

Forest Extent Indicator: the indicator aims to monitor the total area of forest worldwide, including unmanaged natural forests and managed natural forests.

Deforestation: permanent conversion of forested land to other land uses, deforestation can only be identified at the moment trees are removed if it is known how the land will be used afterward.

Climate, geology and human influence shape the different **types of forests** around the world. In Uruguay Subtropical Forest is presented. Tropical and subtropical forests, located close to the equator, account for 6% of 2020 global tree cover by area.

Figure 14. Types of Forest by countries



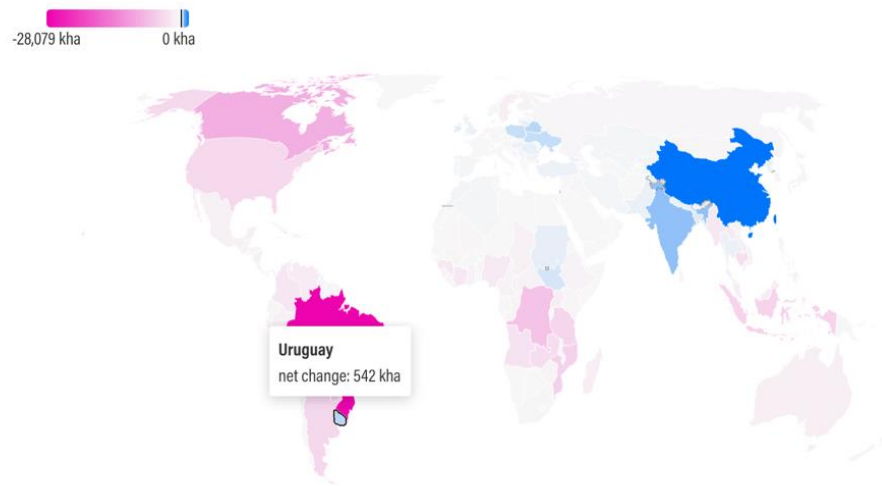
Source: WRI-GFW

²³ <https://research.wri.org/gfr>

²⁴ The **Global Forest Review** (GFR) provides an independent assessment of the state of the world's forests based on the best available geospatial data and analysis. A key distinguishing element of the GFR is its focus on insights derived from analysis of geospatial data and maps. In 2014, breakthroughs in global forest monitoring using satellite data, computer algorithms, and cloud computing resulted in the first global map of forest change at 30-meter resolution, depicting tree cover loss annually since 2001 and tree cover gain cumulatively over the same time period. Analysis of these data, combined with hundreds of other spatial data sets, allows for granular, timely, and consistent monitoring of global forest trends over time and space. The Global Forest Change data set, with its annual updates on tree cover loss and gain, provides a critical input to the report.

Primary forests account for roughly 50% of all forests in the tropics (1.03 billion hectares). The world lost 101 million hectares (Mha) in net tree cover between 2000 and 2020. The net change in forest area — the difference between the amounts of tree cover gain and tree cover loss — is highly variable geographically. The tropics and subtropics lost 92 Mha and the boreal lost 14 Mha of tree cover, while temperate forests gained 4.5 Mha. However, net tree cover gain doesn't mean there is no tree cover loss and gain in temperate forests may include loss in old growth forests paired with gain in monoculture managed forests.

Figure 15. Net tree cover gain and loss between 2000 and 2020



Source: Potapov et al. 2022

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Uruguay, in particular, presents a net change of 542 kha between 2000 and 2020.

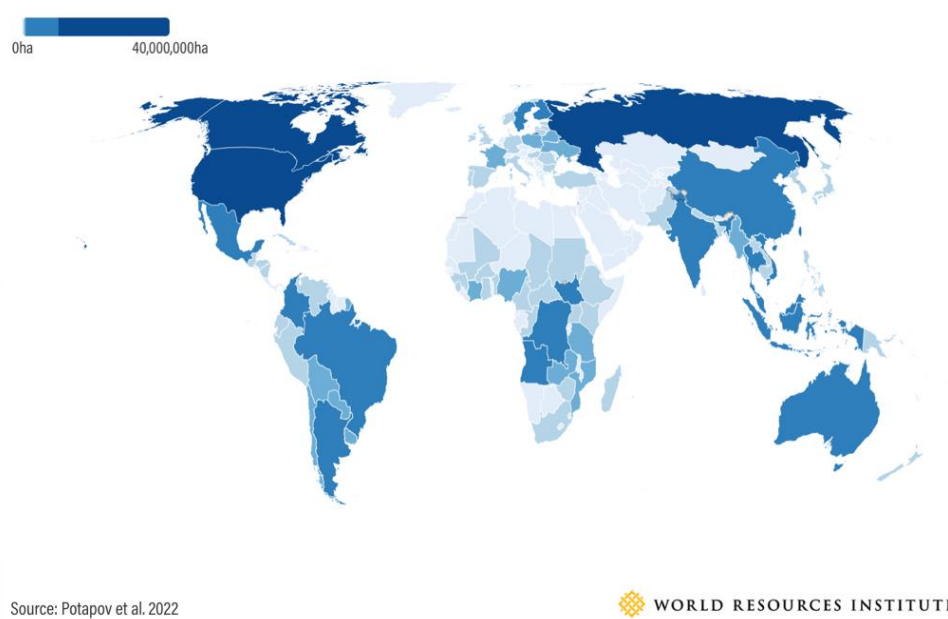
Estimates of **global forest extent** vary, partly due to a multiplicity of approaches to defining and measuring a forest.

Primary forest loss aims to monitor the total area of primary forest lost or removed globally each year. Primary forests are mature natural forests that have not been disturbed in recent history. Primary forests have only been mapped comprehensively in the humid tropics. Therefore, this indicator uses maps of intact forest landscapes as a proxy for primary forest loss in the temperate and boreal ecozones. Intact forest landscapes are a subset of primary forests. To be considered intact, a forest must be both undisturbed by human activity and larger than 50,000 hectares.

The world experienced 130.9 million hectares (Mha) of **tree cover gain** between 2000 and 2020. Of the 130.9 Mha gain in tree cover between 2000 and 2020, an estimated 14 percent (19 Mha) comprises planted trees that are managed specifically to provide commercial tree-based products like pulp, timber, oil palm, rubber and fruit. <https://research.wri.org/gfr/forest-extent-indicators/forest-gain> This estimate is based on an aggregate map of planted trees that accounts for approximately 90% of planted forests worldwide. <https://research.wri.org/gfr/forest-extent-indicators/forest-gain> By proxy, the remaining 86% of gain (111.9 Mha) is estimated to be “natural” forest gain, which is comprised of gain from natural

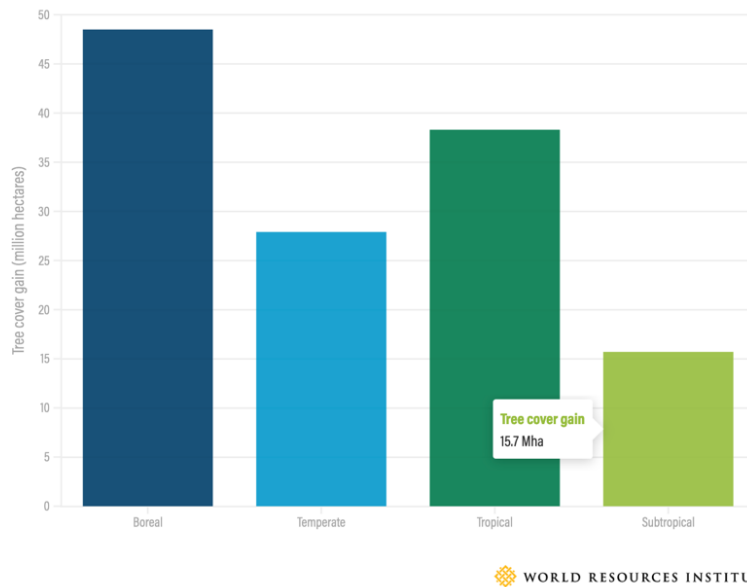
regeneration or human-assisted restoration. **In Malaysia, Uruguay and New Zealand, at least 70% of each country’s tree cover gain occurred inside plantations.**

Figure 16. Forest Gain



Approximately 59 percent of the 130.9 Mha of global tree cover gain between 2000 and 2020 occurred in temperate and boreal forests, while the remaining 41 percent occurred in tropical and subtropical forests.

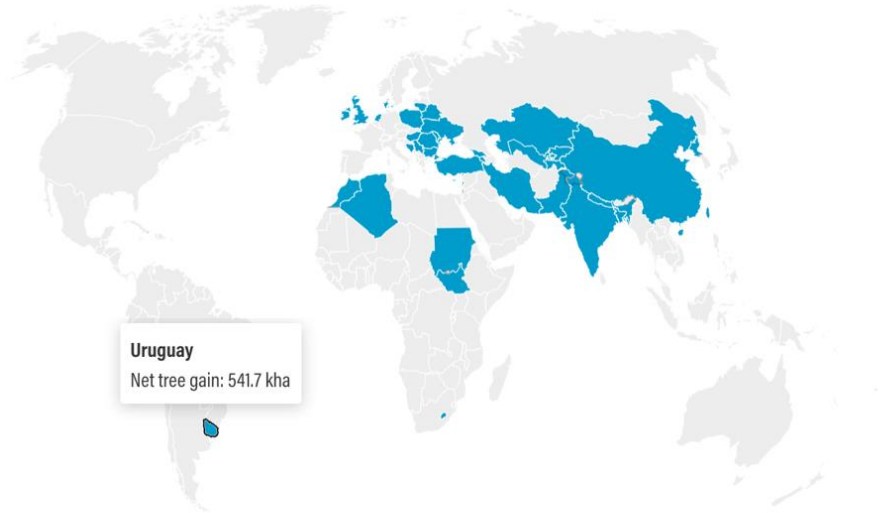
Figure 17. Global tree gain by climate domain 2000 and 2020



Even though the world gained 130.9 Mha of tree cover between 2000 and 2020, it still lost much more, with an overall net loss of 100.6 Mha. While the global numbers report a negative trajectory, there are

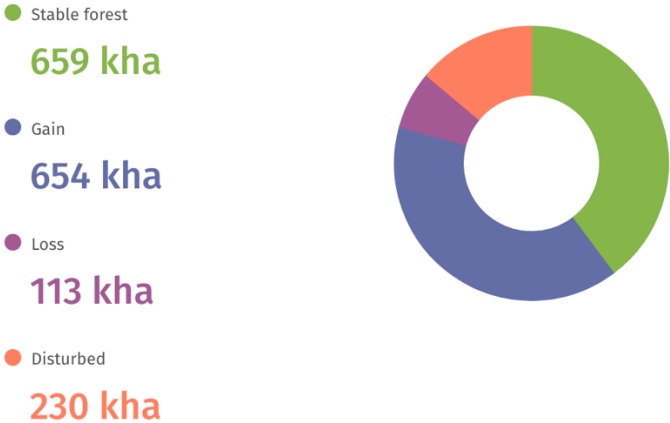
distinct regional patterns or “hotspots” of net gain. At least 36 countries gained more tree cover than they lost over the 20-year time period. One of them is Uruguay with a net tree gain of 541,7 kha.

Figure 18. Net tree gain countries 2000-2020



Source: WRI-GFW

Figure 19. Net change of Tree Cover Uruguay



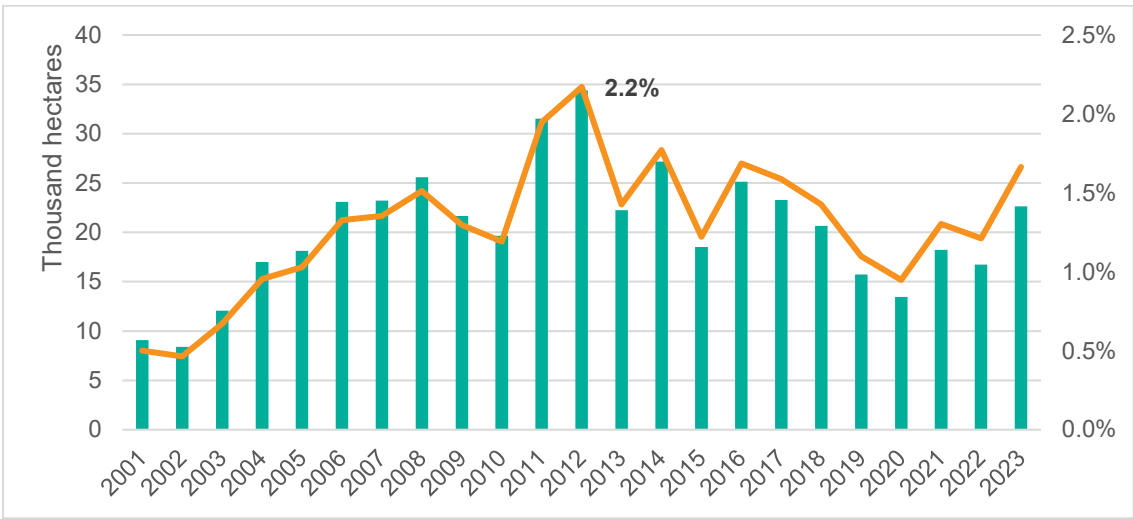
Source: GFW

According to GFW in 2020, Uruguay had 976 kha of natural forest, extending over 5.5% of its land area. In 2023, it lost 7.94 kha of natural forest. From 2021 to 2023, 8.0% of tree cover loss in Uruguay occurred within natural forest.

There is no more information regarding primary forest in Uruguay in the GFW Dashboard. However, tree cover loss can still be analyzed. It can be observed that tree cover loss had a growth rate until 2012, after

which it started to decline. Nevertheless, the amount of tree cover loss never exceeded 35,000 hectares in 2012, which represents 2.2% of the total hectares with tree cover.

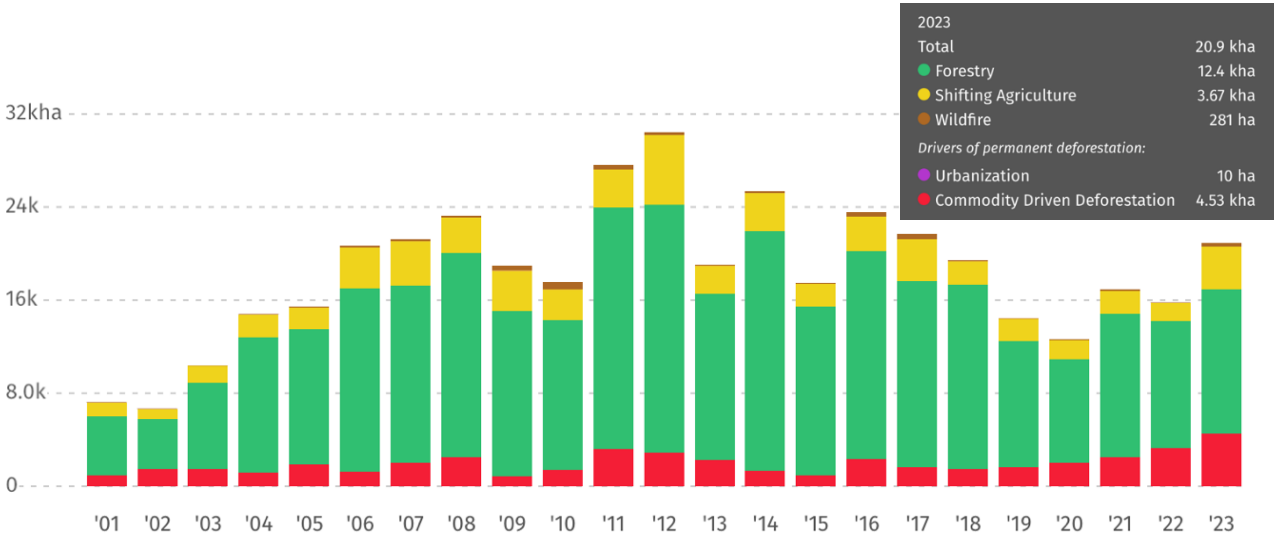
Figure 20. Tree cover loss, in hectares and % of total extent remaining



Source: Global Forest Watch (GFW)

The main driver of tree cover loss was plantations/forestry, followed by shifting agriculture.

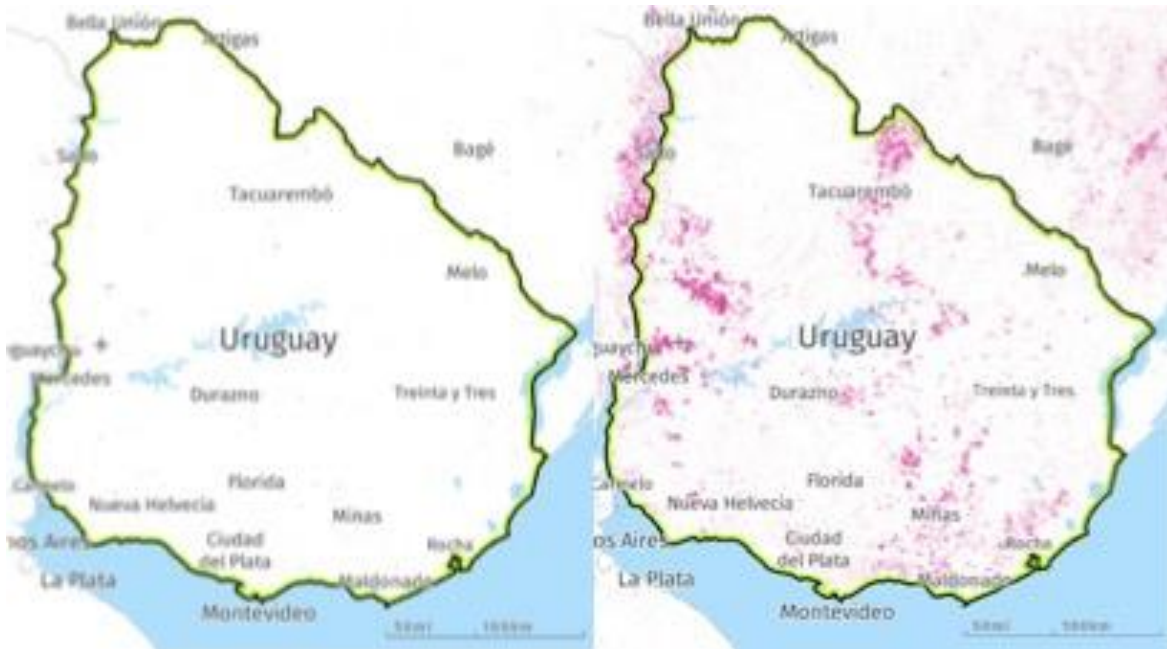
Figure 21. Uruguay Annual Tree Cover Loss by Driver



Source: GFW

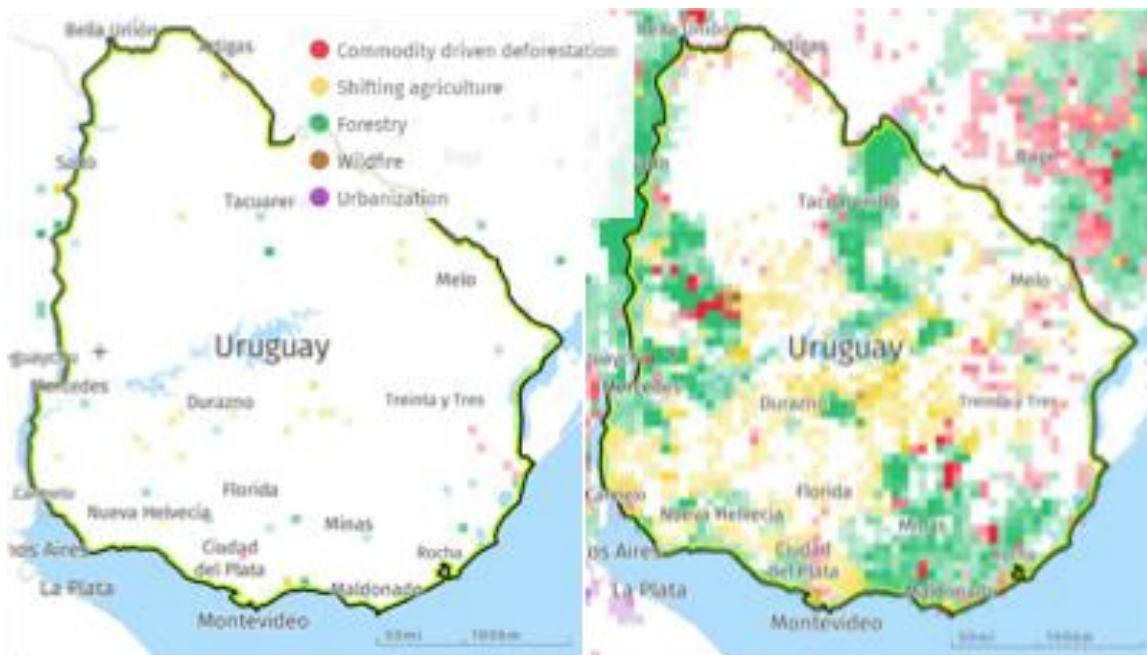
In Uruguay, the top 4 regions were responsible for 52% of all tree cover loss between 2001 and 2023. Río Negro had the most tree cover loss at 67.8 kha compared to an average of 22.5 kha. If tree cover loss is analyzed over the period, Figure 7 shows the cumulative loss between 2000 and 2023. Tree cover loss is not very widespread; in general, the most significant loss occurred in the areas of the departments of Paysandú and Río Negro on one hand, and Rivera and Tacuarembó on the other. In contrast, the loss is more dispersed in the regions of Maldonado, Rocha, and Lalleja.

Figure 22. Cumulated Tree cover loss in Uruguay, 2000-2001 vs 2000-2023



Notes: with >30% canopy density. Source: Global Forest Watch

Figure 23. Cumulated Tree cover loss in Uruguay, by dominant driver. Period 2000-2001 vs 2000-2023.

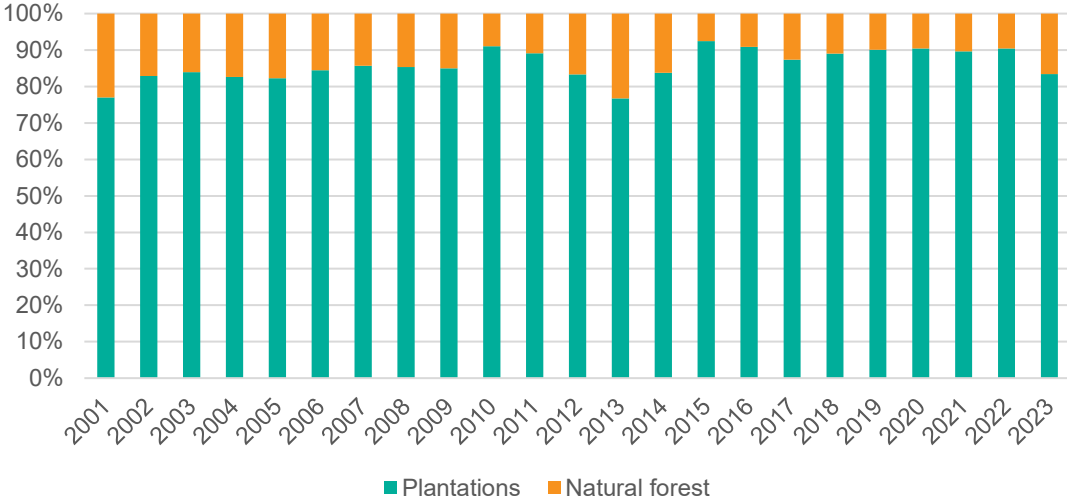


Notes: with >30% canopy density. Source: Global Forest Watch

However, when analyzing the dominant drivers of this tree cover loss, it can be observed that the increase in forestry is the primary reason for changes in land cover. In second place is shifting agriculture, and in the Paysandú area, there is also a contribution from wildfires (Figure 24).

Throughout most of the period, more than 80% of the total tree cover loss was due to the expansion of plantations—except in 2001 and 2013. Interestingly, in Uruguay, one of the reasons for tree cover loss is the growth of natural forests: between 2000 and 2020, tree cover increased by a total of 654,000 hectares, according to GFW.

Figure 24. Use of Tree cover loss (% participation over total tree cover loss). Period 2001-2023



Source: GFW

UNDERLYING DRIVERS OF DEFORESTATION

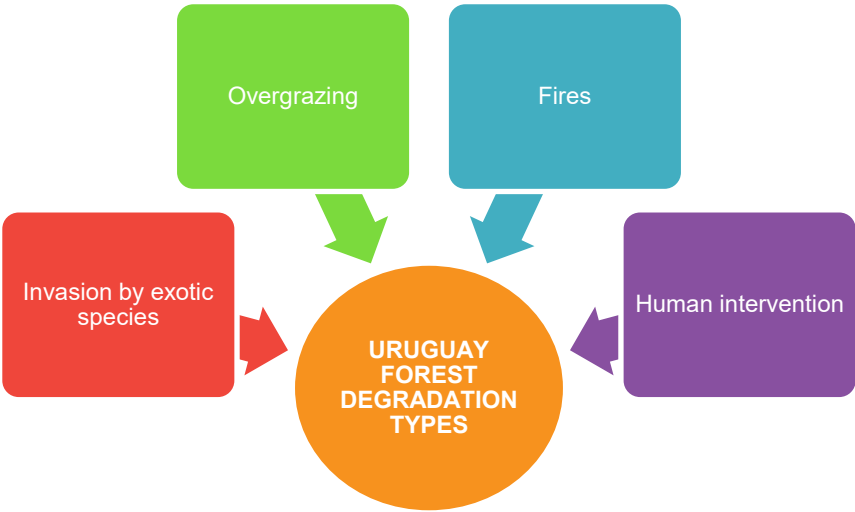
Over time, Uruguay's forests have undergone changes, not only those that are logical due to the dynamics of the forests, but also those caused by man. These include **deforestation to expand the agricultural frontier or for livestock purposes**, and also the **introduction of exotic species**²⁵ that have developed very well in local conditions, and in many cases have become invasive. The proximity of population centers to waterways and the use of exotic trees in both gardens and public ornamentation is a possible route of entry of propagules of exotic species into the native forest, taking into account that rivers and streams act as channels for dispersion and natural fluctuations in water level cause modifications in the forest that can be exploited by them (adapted from Richardson et al, 2007). Anthropogenic disturbances such as the extraction of firewood, the creation of paths and the construction of bridges are other factors that favor the entry of exotic species, given that these activities involve clear-cutting in a strip or partial removal of the forest.

Throughout the country, it is observable that the highest degree of degradation of native forests is found in the vicinity of and around cities and populated centers, generated mainly by illegal logging, which means excessive use of forest resources. Thus, we have cities such as Santa Lucía, Florida, Durazno, Mercedes, Paysandú, Artigas, Rivera, Melo, and Treinta y Tres, which are adjacent to important rivers and native forests, where this high degree of degradation is observable in their vicinity within a radius of 15-20 km.

²⁵ An exotic invasive species is considered to be one that has been introduced outside its normal range of current or past occurrence and whose introduction and spread affects human health, the economy and/or the environment.

Grazing and trampling cattle and clear-cutting for the construction of bridges and roads are other factors that threaten the ecological integrity of forests, with the problem of biological invasions being one of the most serious.

Figure 25. Uruguay Forest Degradation Types

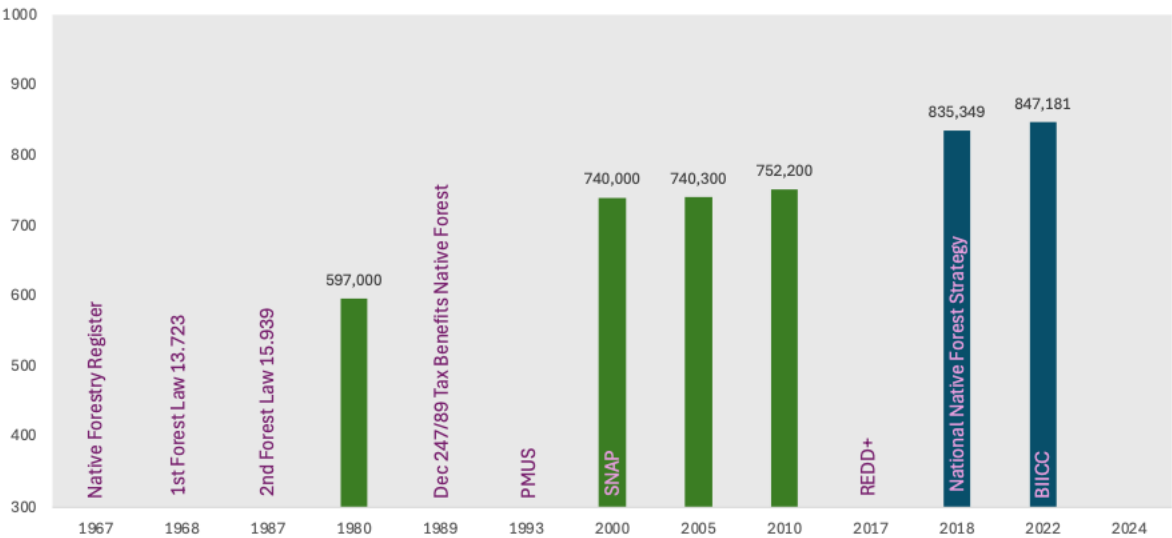


Trend Analysis

According to data collected from different sources of information, **Uruguay is one of the few examples worldwide with negative deforestation rates**, demonstrating efficient management of native forests.

The figure shows the areas of native forest in Uruguay based on the data reported to the FAO-FRA (green columns) and the data resulting from the two native forest mapping exercises of the DGF of Uruguay (blue columns), considering in this manner the most relevant native forest information available. Main national regulations on native forests are included in violet in order to identified potential correlations with regulatory factors.

Figure 26. Uruguay Native Area – National Regulation



It is clearly observed that the regulatory framework based on the prohibition of the deforestation of native forest, the PMUS mechanisms and fiscal incentives related to the Forest Fund established in Uruguay had a positive impact on the conservation of native forests, even achieving a natural regeneration process. In a period of 42 years, native forests increased by 41.9%, equivalent to 250,181 ha and 1.43% of the country's total surface area.

In particular, the implementation of the National Native Forest Strategy in 2018 yields a positive result in the short term with an increase of 11,832 ha according to data obtained in the second native forest mapping in 2022.

CONCLUSIONS

The country's small geographic size implies that increases in production can only come through intensification. Limited by land availability, Uruguay's land use portfolio underwent a transformative process during the last decade, in order to increase production and take advantage of the favorable international market. The sector experienced a sharp intensification of production, understood as the increase of production per unit of land.

Green growth is not only a lens through which sustainability challenges can be tackled, it also represents an opportunity as it can contribute to the country's already successful export-led growth model.

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