



Ministerio
de Ganadería,
Agricultura y Pesca

Dirección General FORESTAL

Ministry of Livestock,
Agriculture and Fisheries

General Forestry Directorate

*“Forest Management in Harmony with Biodiversity
Conservation in Temperate and Boreal Forests: The
Case of Uruguay”*



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Introduction

Sustainable forest management is key to maintaining the balance between production and conservation

Uruguay, a country with a diversified economy, integrates sustainable forestry practices and conservation of Biodiversity

In this presentation we will explore the Uruguayan approach



General Context of Uruguay

Geography and Size

Uruguay is a South American country covering approximately 17.600,000 ha

Demographics

It has a population of about 3.5 million people.

Topography and Landscape

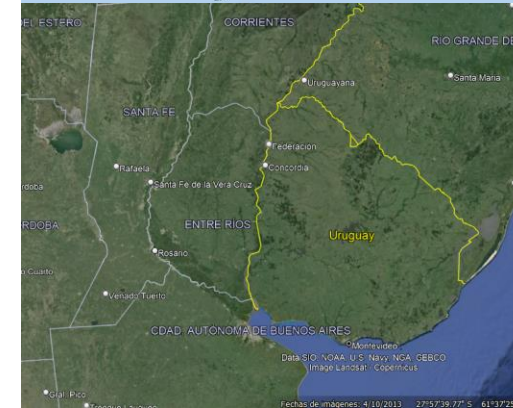
The territory features gently rolling plains and low hills, characteristic of a pampas landscape, (with more than 300 different species of grasses).

Climate and Soil

Uruguay has a temperate climate and fertile soils (14 different type), ideal for agriculture and livestock farming, which are key to its economy.

Recent Forestry History

Since 1999, Uruguay has adopted modern policies to promote sustainable forest management and the development of its forestry sector.



“Pampa biome”



Short History of Uruguay

1611 - Cattle were introduced to Uruguay by the Spanish.

18th century - In the colonial period, Uruguay's economy was mainly based on large –scale **livestock farming**.

Post-Independence Growth (19th Century), Uruguay's economy continued to be driven by livestock, and by the end of the 19th century, Uruguay became a key **exporter of wool, meat and leather**.

Since the **mid-20th century**, Uruguay has **diversified its economy**, improving agricultural production with crops such as **soybeans, rice,** and **forest plantations** expanding in the 21st century.





THE URUGUAYAN FOREST SECTOR

1989 2nd Forest Law No.15.939

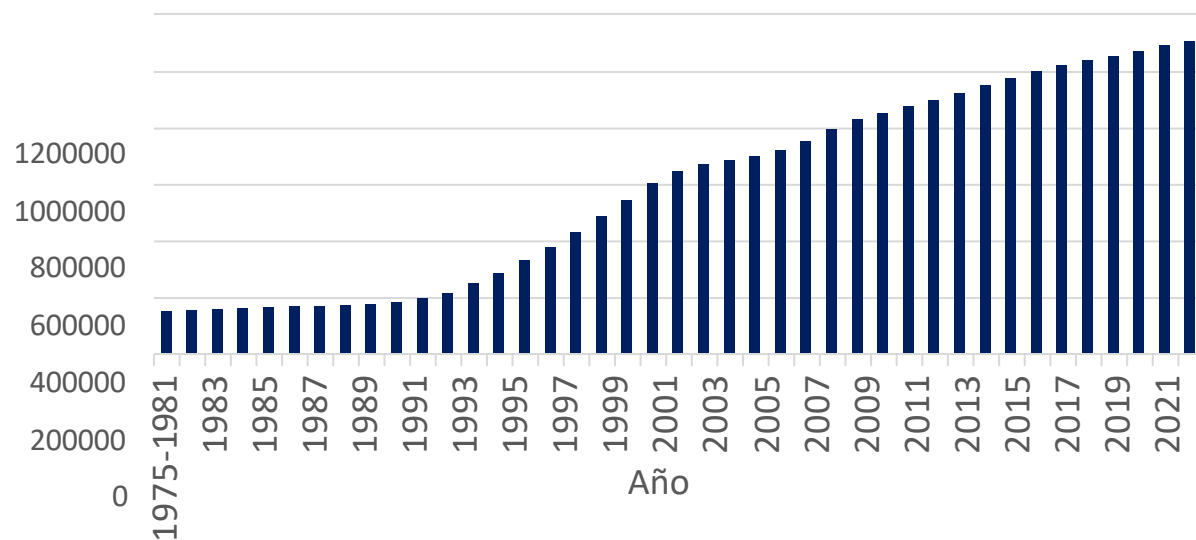
General objectives:

- The conservation of **natural forests** based on management plans that will ensure their sustainability.
- The **expansion of the forest base through plantations**, in areas of lower relative competitiveness with other agricultural productions.

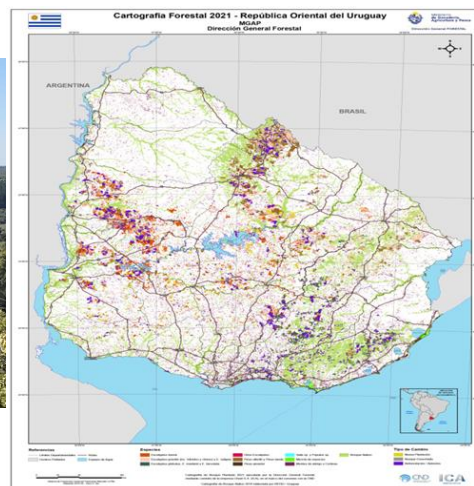
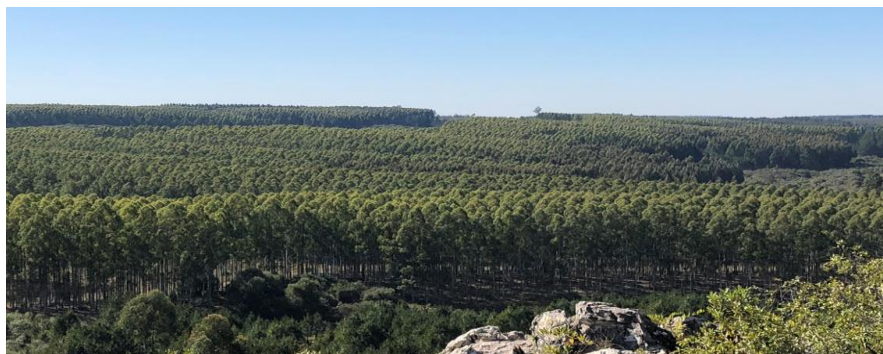
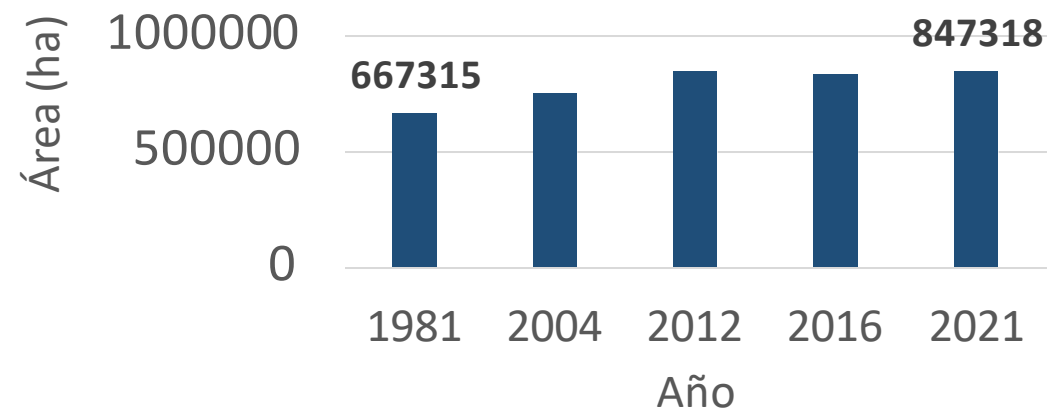


THE URUGUAYAN FOREST SECTOR

Planted forest area



Native forest area



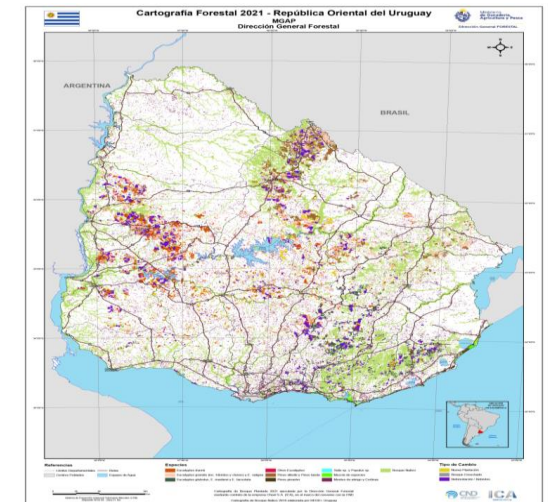
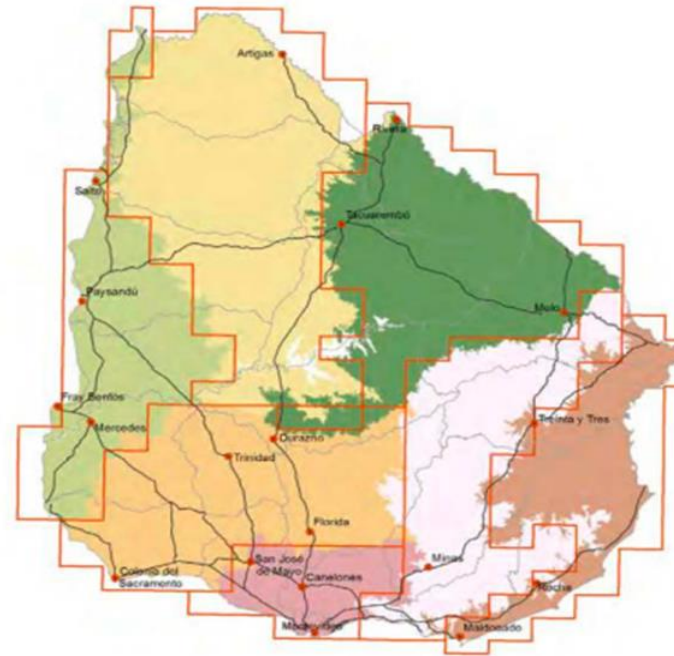
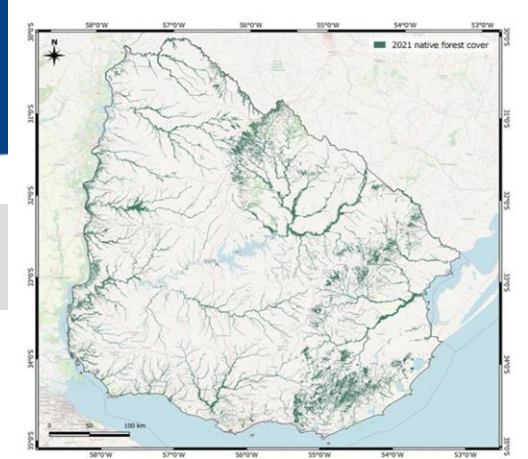
Biodiversity Conservation

Environmental regulations to protect native forests.

Featured ecoregions:

1. Riparian, gallery, or river forests
2. Park Forest
3. Ravine forest
4. Forests hill
5. Palmares
6. Psamophilous forest

Focus on biological corridors and protected areas.



Native Forest among Natural Grasslands



Forest Monitoring

Methods

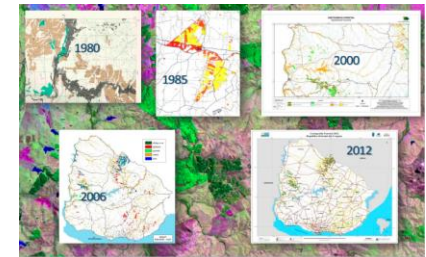
Forest inventories.
Satellite and drone monitoring

Key indicators

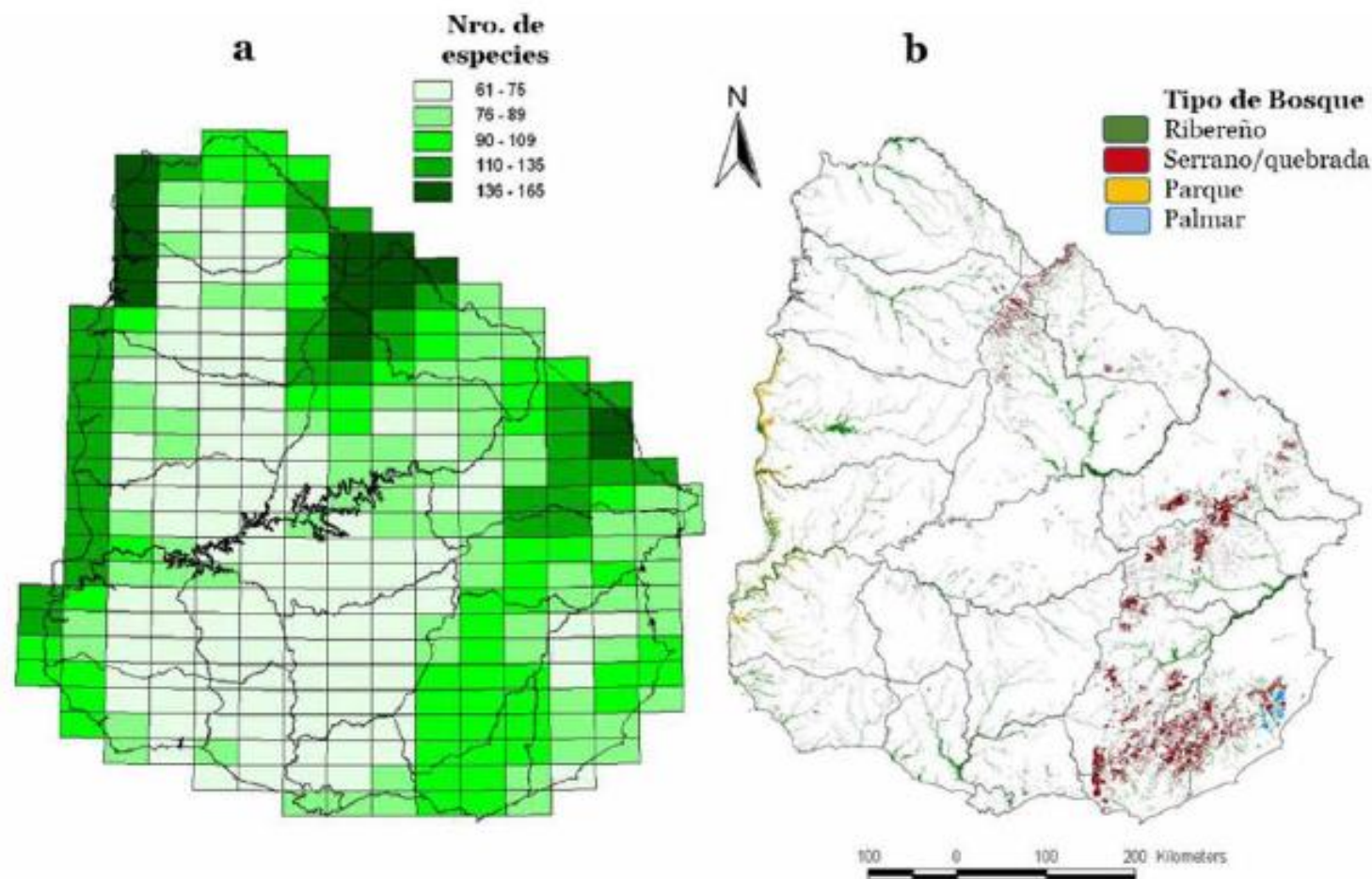
Species diversity and habitat quality

Results

Effective conservation of forest areas



The eco-regions of Uruguay where the Natural Forests Grow



1. Riparian, gallery, or river forests
2. Ravine forest
3. Park Forest
4. Forest Hill
5. Palmares

Diversity of tree species

165 tree species

150 shrub species

INF- DGF

(a) Potential richness of woody species in Uruguay (Brazeiro et al. 2015).

(b) Distribution of the main types of forests recognized in Uruguay (Ministry of Livestock, Agriculture and Fisheries. 2011).

Challenges in Forest Management

Climate change:

Impact on species

Habitats.

Expansion of invasive alien species...

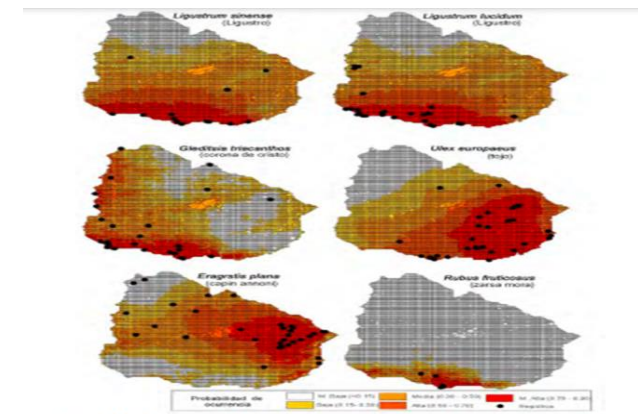
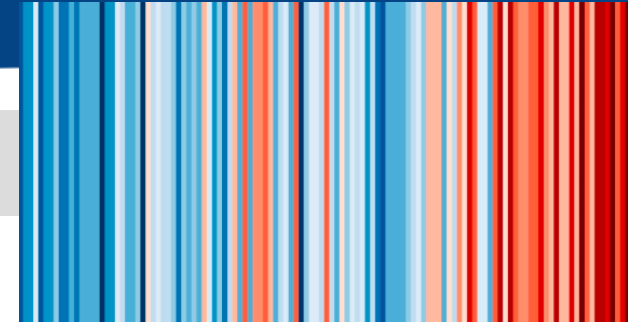


Figura 7.3. Modelación de la distribución espacial en Uruguay de algunas de las principales plantas invasoras: *Ligustrum lucidum*, *Ligustrum sinense*, *Glottia fraxanthes*, *Ulex europaeus*, *Eragrostis plana* y *Rubus fruticosus*. Tomado de Guerrero et al. (2012).

Success Stories in Uruguay

Strong collaboration between public and private sectors.

11% of its total area is devoted to forestry activities, with a balanced distribution between native forests and plantations.

90% of these plantations have international certifications such as FSC and PEFC

Silvopastoral systems: Integrated production of trees, pastures and livestock.



Future Opportunities

Increase biological corridors and protected areas.

Innovation in forest biotechnology.

Strengthen international alliances

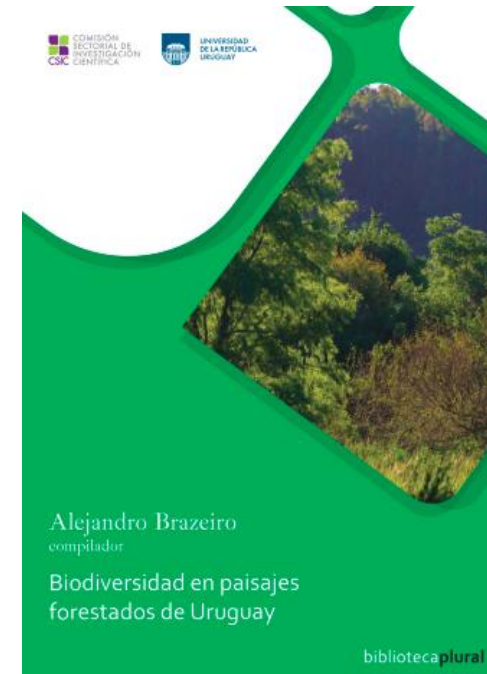


Challenges and Conclusion

Uruguay demonstrates how to integrate production and conservation through institutional strength

Forest sustainability is key to the development of our country as well as the planet

The Montreal Process is an international reference that Uruguay has consistently regarded as a model in this field



*Biodiversity
in forested landscapes
of Uruguay (Brazeiro. 2023)*



thank you ありがとう

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