Economic impact assessment of a forest pest invasion in Uruguay
Main challenges and opportunities

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Outline

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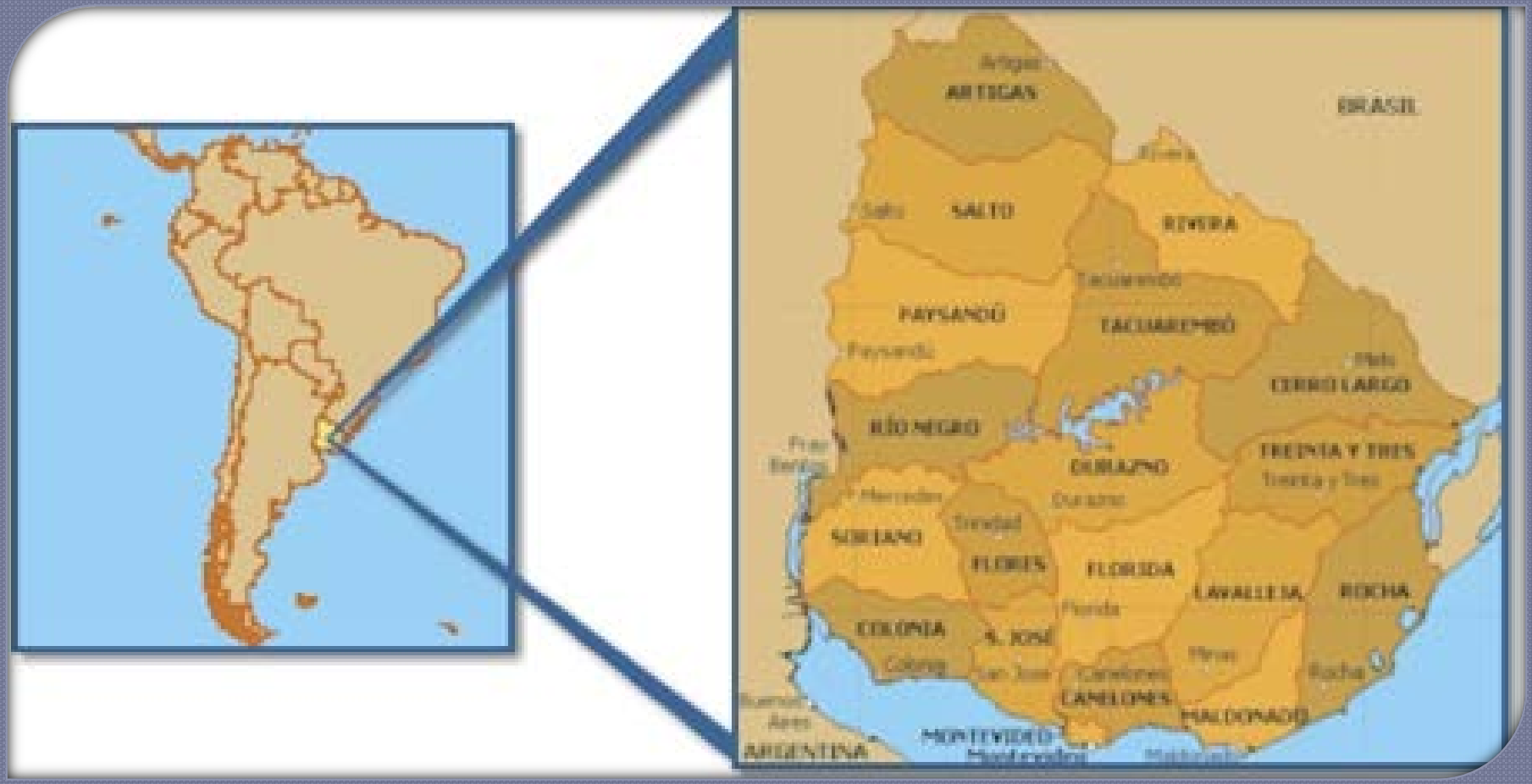

Uruguay in South America

Forest Sector in Uruguay

- Forestry Law 1988
- Total area by species (effective area 2012): 1,545,053 hectares (55% native species, 28% eucalyptus, 11% pine, 6% others)
- Industries: pulpmills, sawmills. Export-oriented
- Forest sector contribution to GDP (2015): 4.8%

The project

- INIA: FPTA funds, Project No. 332 (2012)
- Objective: to evaluate the economic impact caused by the introduction of *Teratosphaeria nubilosa* in Uruguay
- Hypothesis: the introduction of *T. nubilosa* in 2007 have had a negative economic impact on *Eucalyptus globulus* plantations and consequently for the national economy
- Method: economic assessment of the impact of the emergence of *T. nubilosa* in *E. globulus* plantations using a cost-benefit analysis at two levels: the producer level and the national level

Method: the economy level

- First study on economis impact of a forest pest
- Cost-benefit analysis
- The economy:
  - Shadow prices
  - Define cost and benefits
  - No taxes
- Scenarios:
  - Base case: no pest
  - Case 1: lower harvest volume than base case
  - Case 2: longer rotation age than base case
  - Case 3: substitution of *E. globulus* by other eucalyptus species

Challenges and opportunities

- Data availability a challenge in forest sector in Uruguay. Different sources: secondary information available and personal interviews with producers and qualified people
- Costs: planting and harvesting costs. No secondary information available→ interviews (producers and contractors)
- Benefits: exports. Pulpwood (free trade zones) and chips (industry costs)

Challenges and opportunities

- The use of the cost-benefit analysis method to estimate the economic impact of the forest pest T. nubilosa on the Uruguayan economy is considered an appropriate method. **Main challenge**: lack of data (scarce or incomplete)

- In addition, volumes and areas by species and regions are also lacking. Average Mean Annual Increments (MAIs) by species and regions as well as reliable information on areas by species, age and region are needed in order to learn the impact of the forest pest in areas and yields

Next steps

- The project finishes in September 2016
- Scenarios:
  - Base case: no pest
  - Case 1: lower harvest volume than base case
  - Case 2: longer rotation age than base case
  - Case 3: substitution of *E. globulus* by other eucalyptus species
- Finish wood volume (looses) estimates
- Estimate chipmills industrial costs (finish)
- Case 3: yields and markets

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- Forest Society Producers (SPF)
- *E. globulus* producers and industries

Thank you!