



Securing Healthy Soils and Stopping Land Degradation: Outcomes for Rio+20

SOIL IN THE DECISION MAKING PROCESSES, THE EXPERIENCE OF URUGUAY

17 June 2012

**Dirección General de Recursos
Naturales Renovables**

URUGUAY



Total land area: 17 million ha
77% pasture and grassland basis of
livestock production
11 million bovine
7,7 million ovine

1,25 million ha rainfed agriculture
200 miles ha irrigated rice
1 million ha planted forestry

Average annual rainfall 1200mm
warm temperate

3.356.584 habitants

Current scenario

The Uruguayan economy is in the process of structural transformation:

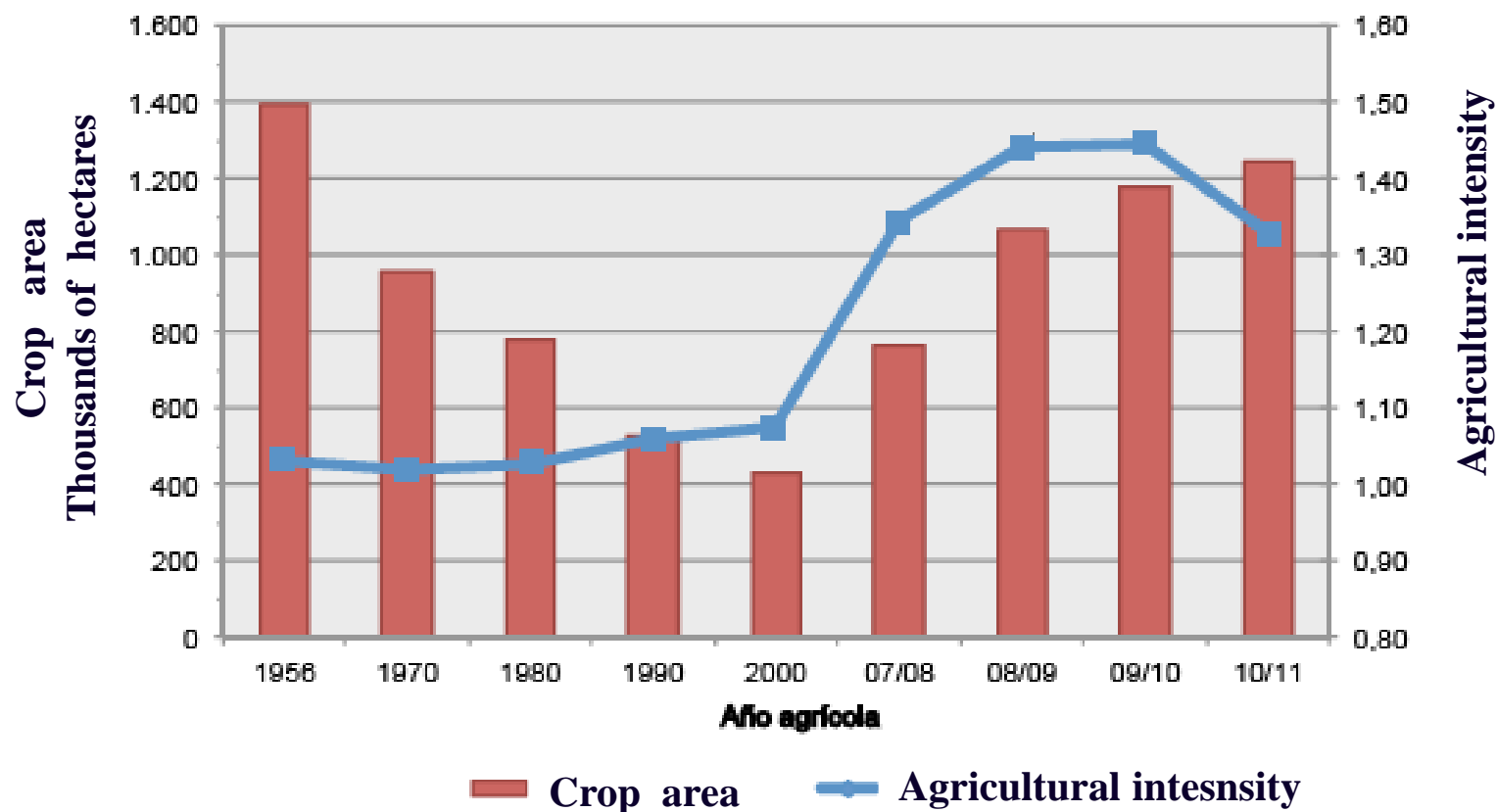
Increased external openness ratio

Increased specialization profile agricultural / agribusiness (intensive NR)

Increased Foreign Direct Investment

Gráfico II - 14

Evolución de la superficie de chacra e intensidad agrícola.



El Indicador de Intensificación surge del cociente: (Cultivos de Invierno + Verano) / Superficie de chacra

Gráfico II - 16

Superficie de chacra: Evolución de las diferentes formas de tenencia



Fuente: Anuario DIEA, 2011.

Technological and productive indicators for rainfed agriculture

1994/96 - 2008/2010

	Period 1994/96	Period 2008/10
Total production (thousands tons)	1.050	4.200
Productivity (tons/ha)	2.3	4.1
No tillage adoption (%)	10	90

Source: DIEA

Current scenario

Decreased area of pasture

Agricultural crops are the economic backbone of the current situation

The same use and management of soils is performed in many cases, in soils with different use capacities

Climate Change

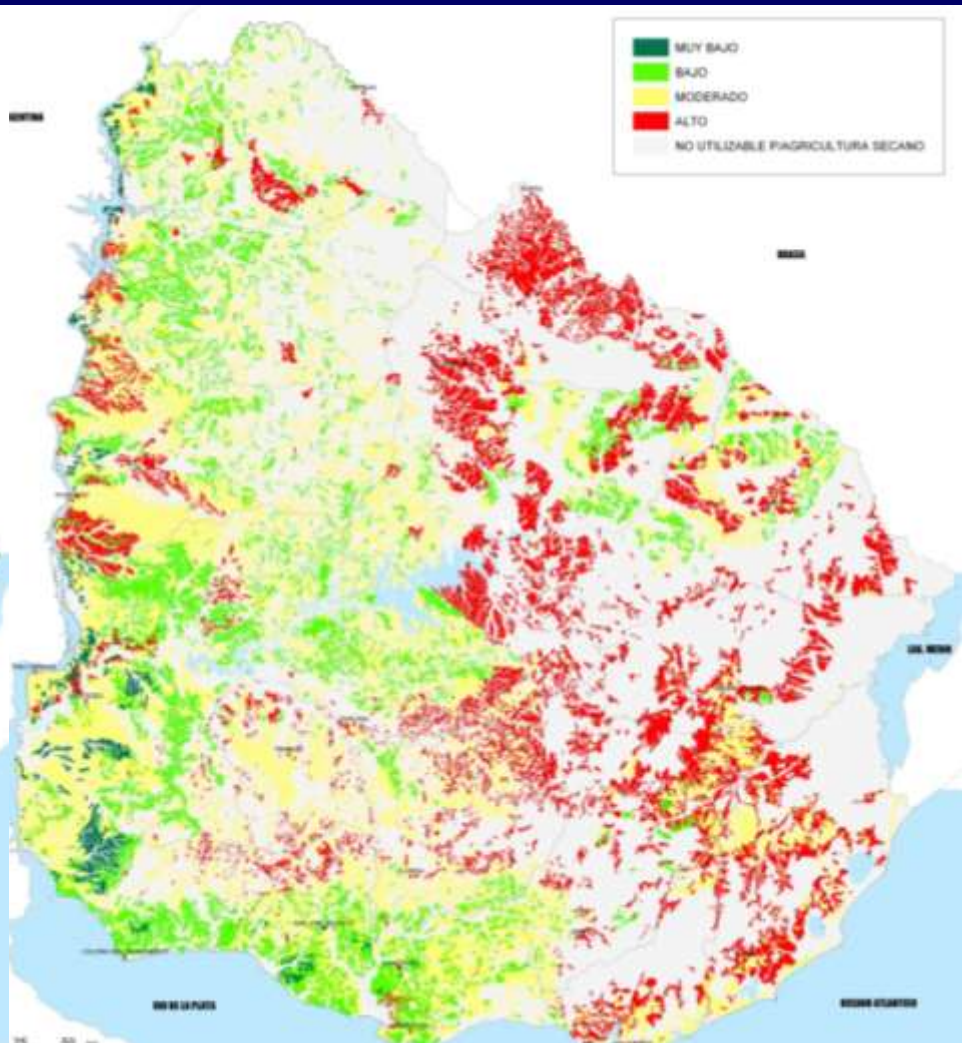
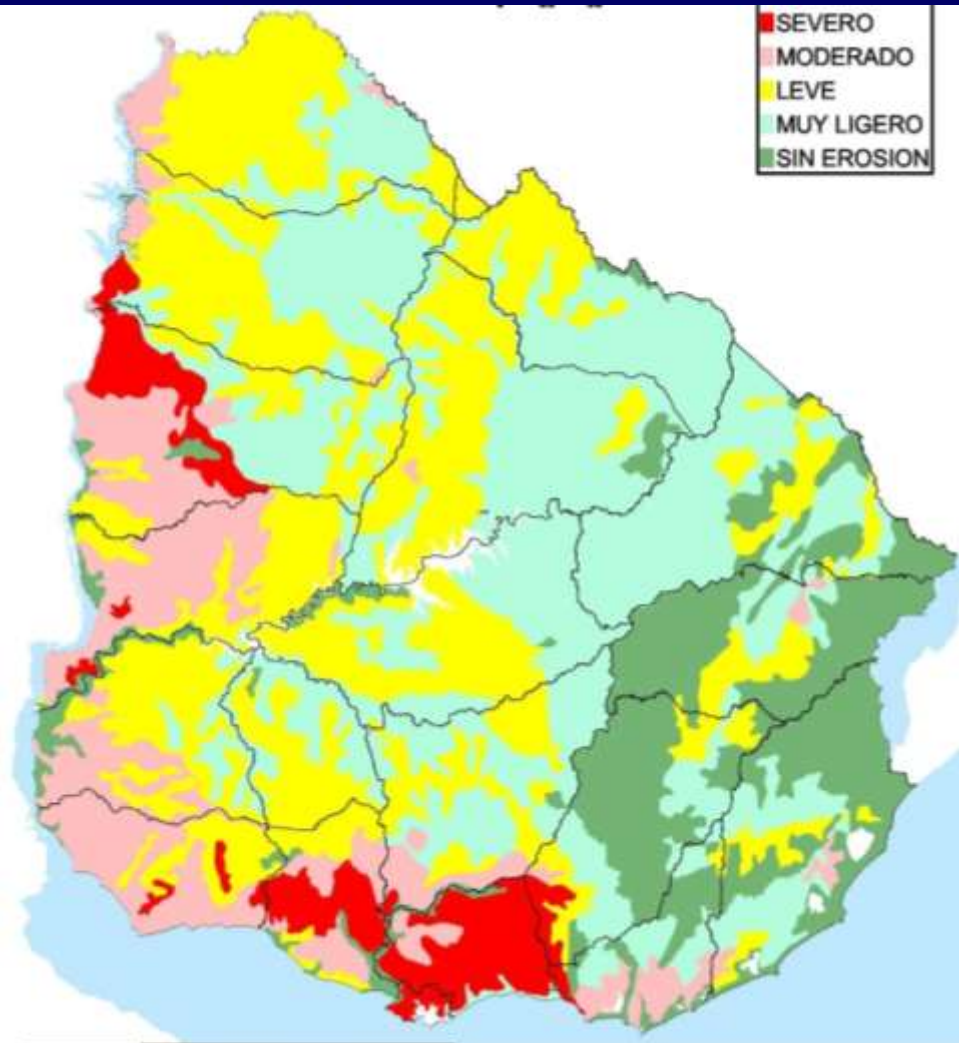
Increased vulnerability of agroecosystems

Low sustainability

Increased risk

Current erosion

Degradation risk



The MGAP strategy aims to...

- Further develop agricultural export with higher added value including family agriculture
- Policies for sustainable use of NR and adaptation to climate change

Through ...

The General Directorate of Renewable Natural Resources is responsible for promoting, regulate and control the use and sustainable management of natural resources relevant to agricultural production and value chains.

Legislation ...

Aims the responsible and sustainable agricultural development in a frame of large and full respect for the environment.

Obligation of proprietary and holders of lands

- Agricultural activity is not discretionary of farmers on land use technical aspects
- There is a specific regulation for the act to grow

Article 5: Decree 405/2008

Shall require a plan for responsible soil use and management considering:

The soils

Tolerable erosion

Projected production systems

Crop secuencies

Management practices

Plan of soil use and management

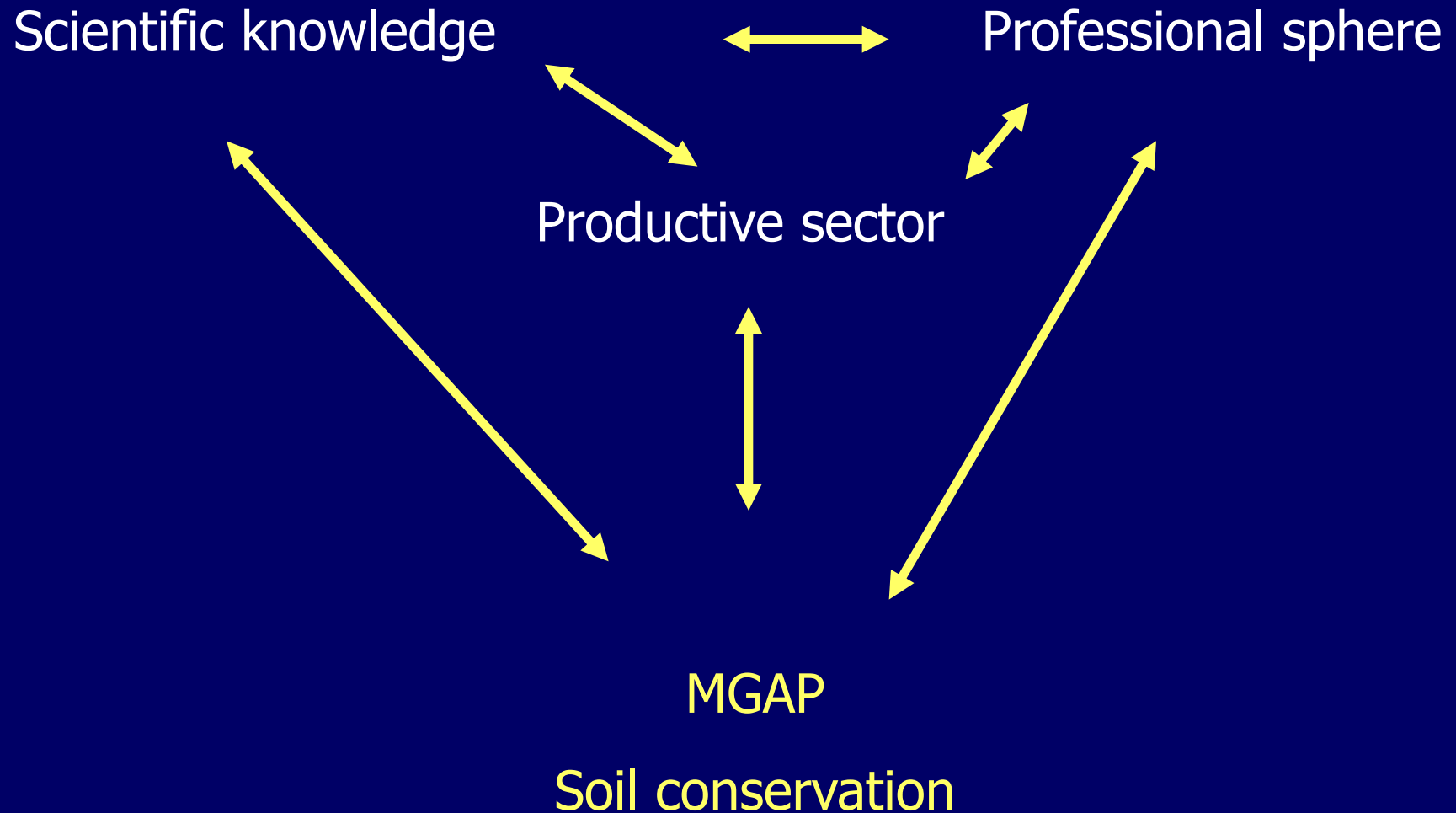
This plan provides guidelines on the use and soil management of an establishment in order to comply with the standards established in the regulation of Law N° 15.239.

The plan's main objective is to achieve sustainable production systems with good use, maintenance and reclamation of soils.

Plan of soil use and management

Plans must be submitted with an agronomy
signature

Land owner commitment



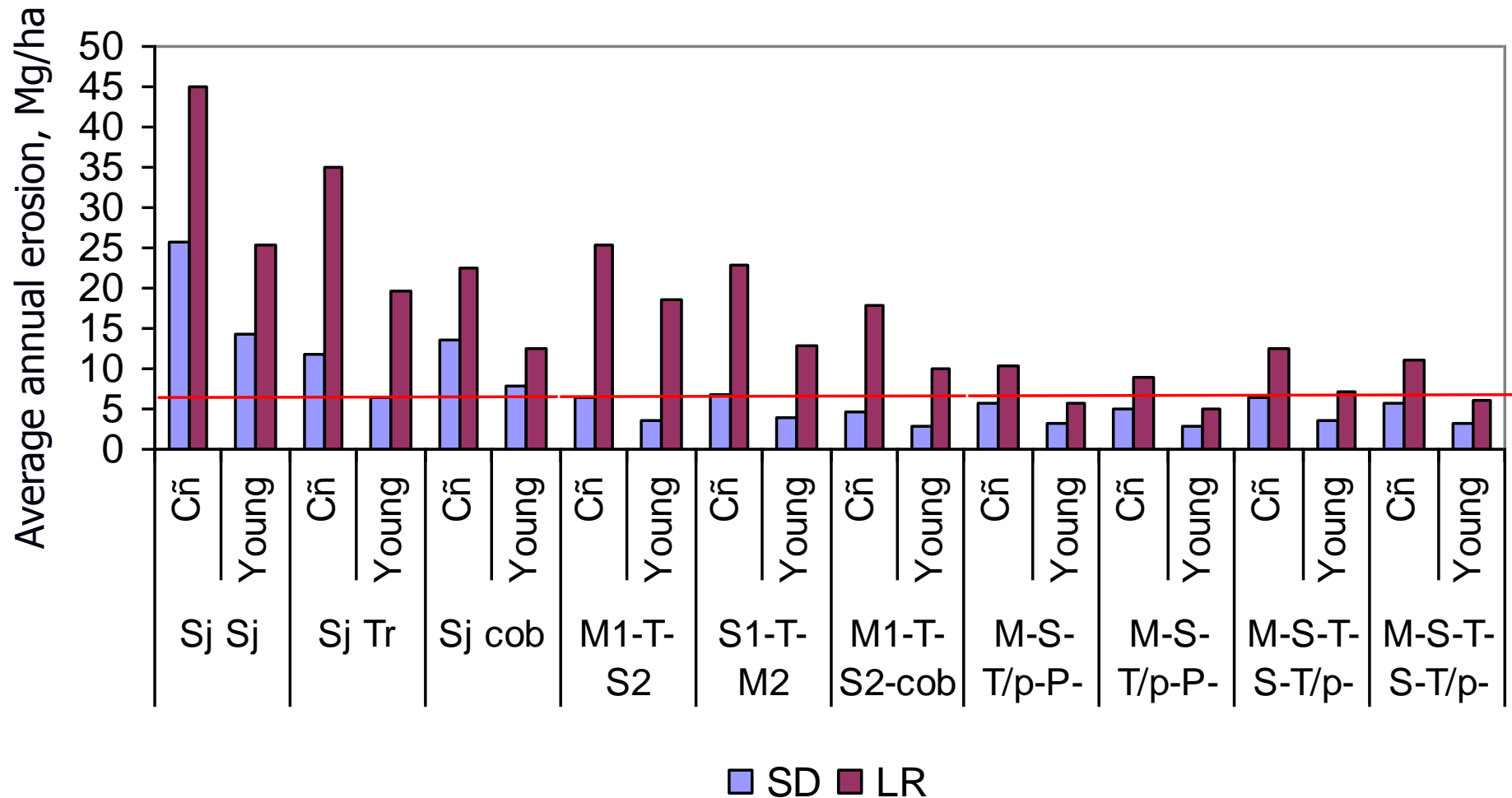
Tools

- ▶ Universal Soil Loss Equation (Wischmeier, W. H.; Smith, D. D. 1978)

Revised Universal Soil Loss Equation (Renard, K.G. et al 1997)

- ▶ More than 35 years of national research in validation and adaptation of the model

Young: K=0,18 ; slope: 2 a 6%
 CñN (Cañada Nieto): K=0,34 ; slope: 4 a 10%



Number of plans: 30

Area involved: 29103 has

Pure agricultural crop rotation: 65%

Crop pasture rotation: 35%

Considerations

- Confirm objectives and tools
- It was considered appropriate and relevant to extend the pilot phase 1 more year to get covered with preparedness activities.
- Maintain the requirements for agreed locations (Basine of Laguna del Sauce and Rocha Lagoon protected Area and investement law: clean production)
- Further organic carbon