MINISTERIO DE GANADERÍA
AGRICULTURA Y PESCA

MINISTERIO DE GANADERÍA AGRICULTURA Y PESCA

Uruguay Agro Inteligente

- Total land area of the country is 17 million ha
- About 85% is suitable for agricultural production and 77% is pasture and grassland suitable for livestock.

Uruguay Agro Inteligente

- **Family farmers are 63% of the country‘s total producers**

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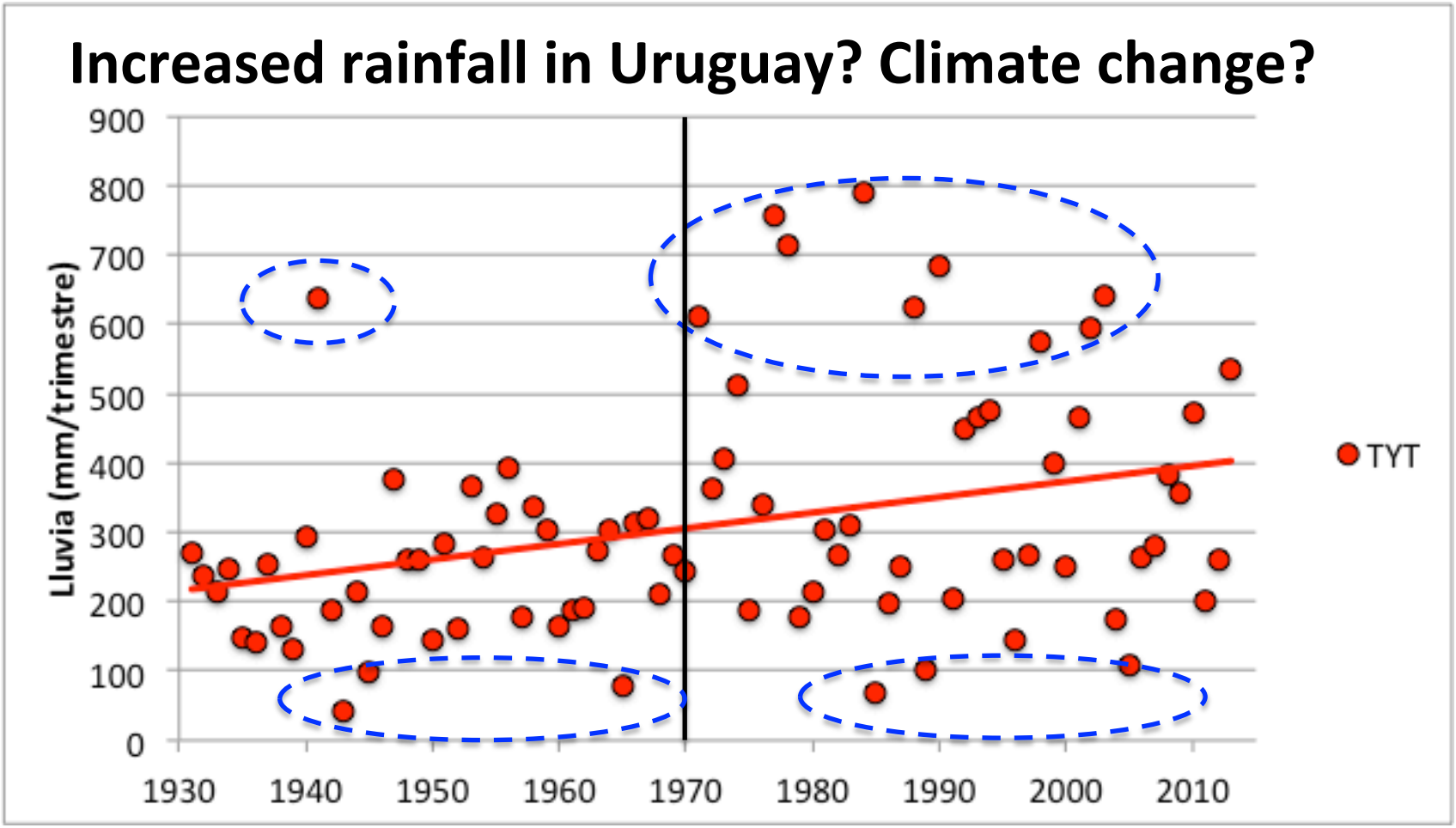
- The main threat is the increase in **variability** of rainfall, including extreme events.

- There is evidence that the already high variability of uruguayan rainfall pattern has increased in the last years, resulting in more

uncertainty.

Increased rainfall in Uruguay? Climate change?



Treinta y Tres: Rainfall accumulated in Dec-Jan-Feb (DJF)

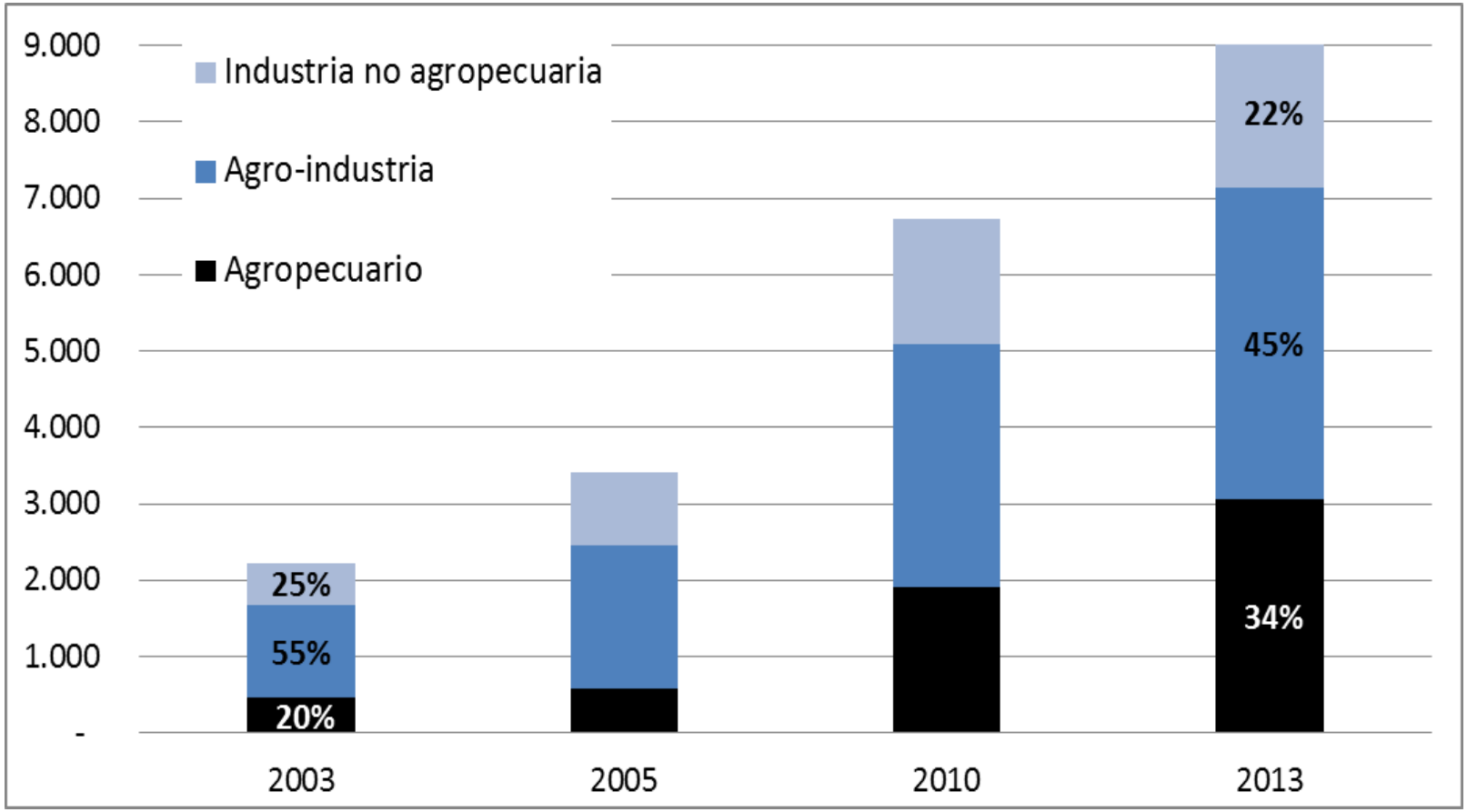
W. Baethgen, 2014

If we add the agricultural, agro-industrial activities, and services demanded the agricultural sector generates

25% of GDP

Agricultural multiplier effect: 6.22

Increase in Uruguayan exports (in Million Dollars)



Source OPYPA-MGAP based in BCU data

Uruguay Agro Inteligente

Exports in 2005

Food for 9 million people

Exports in 2013

Food for 28 million people

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Uruguay Agro Inteligente

- How to produce food for 50 million people from sustainable intensification and care of the environment?

Uruguay Agro Inteligente

Promotion of the competitiveness and international integration

Susteinable intensification

Adaptation of production systems to climate change

Rural Development: competitive inclusion of the family agriculture in value chains

Streghtening and institutional integration

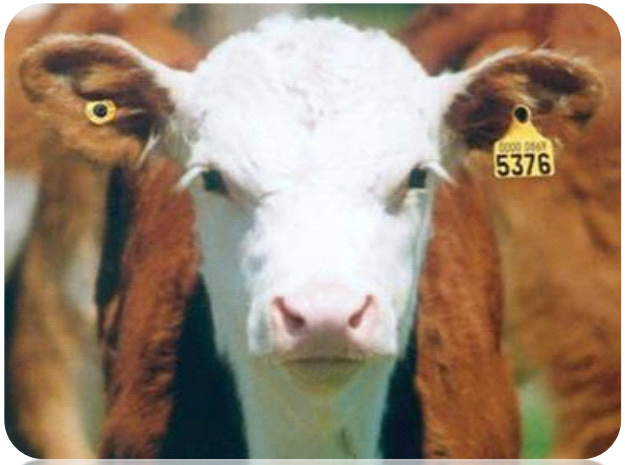
Susteinable intensification

Water

for development

Uruguay Agro Inteligente

Susteinable intensification



Natural grassland is

65%

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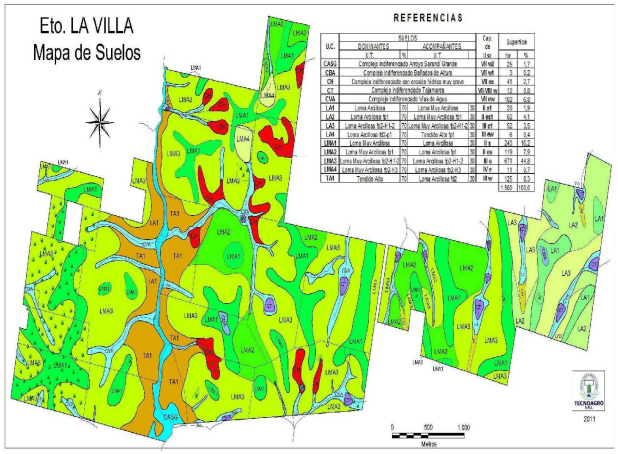
Carnes del Uruguay. De la naturaleza a su mesa

Uruguay Agro Inteligente

Susteinable intensification



Soil

protection plans in 95% of the area

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Susteinable intensification

Native forest area

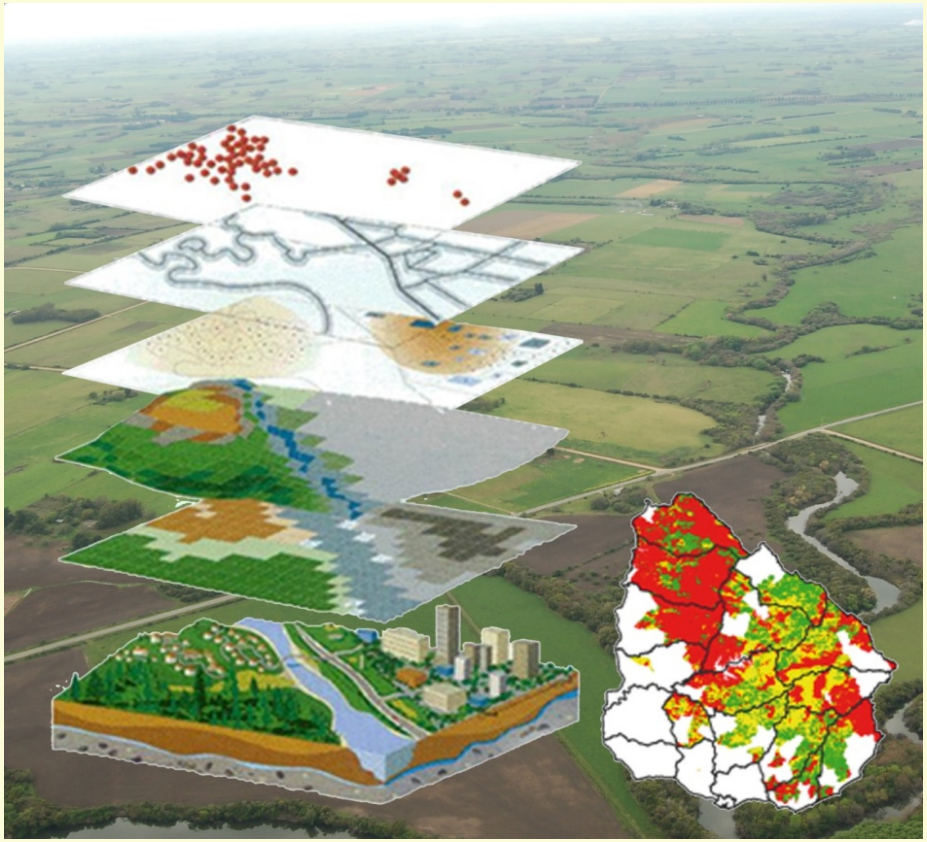
Increase

SNIA

SISTEMA NACIONAL DE INFORMACIÓN AGROPECUARIA

Construction of an information platform as a public good

Adaptation of production systems to climate change



SNIA

SISTEMA NACIONAL DE INFORMACIÓN AGROPECUARIA

Construction of an information platform as a public good

Facilitating the integration of dispersed agriculture, natural resource management and new climate-related information...

… in an online state-of-the-art platform tailored to the needs of different users

SNIA
SISTEMA NACIONAL DE INFORMACIÓN AGROPECUARIA

Construction of an information platform as a public good

This system would include:

- improving and integrating existing climate and natural resources databases
- developing improved seasonal forecasts
- establishing Early Warning Systems
- improving real time monitoring of climate and vegetation
- developing simulation models to assess the impact of adopting different adaptation technologies.

SNIA

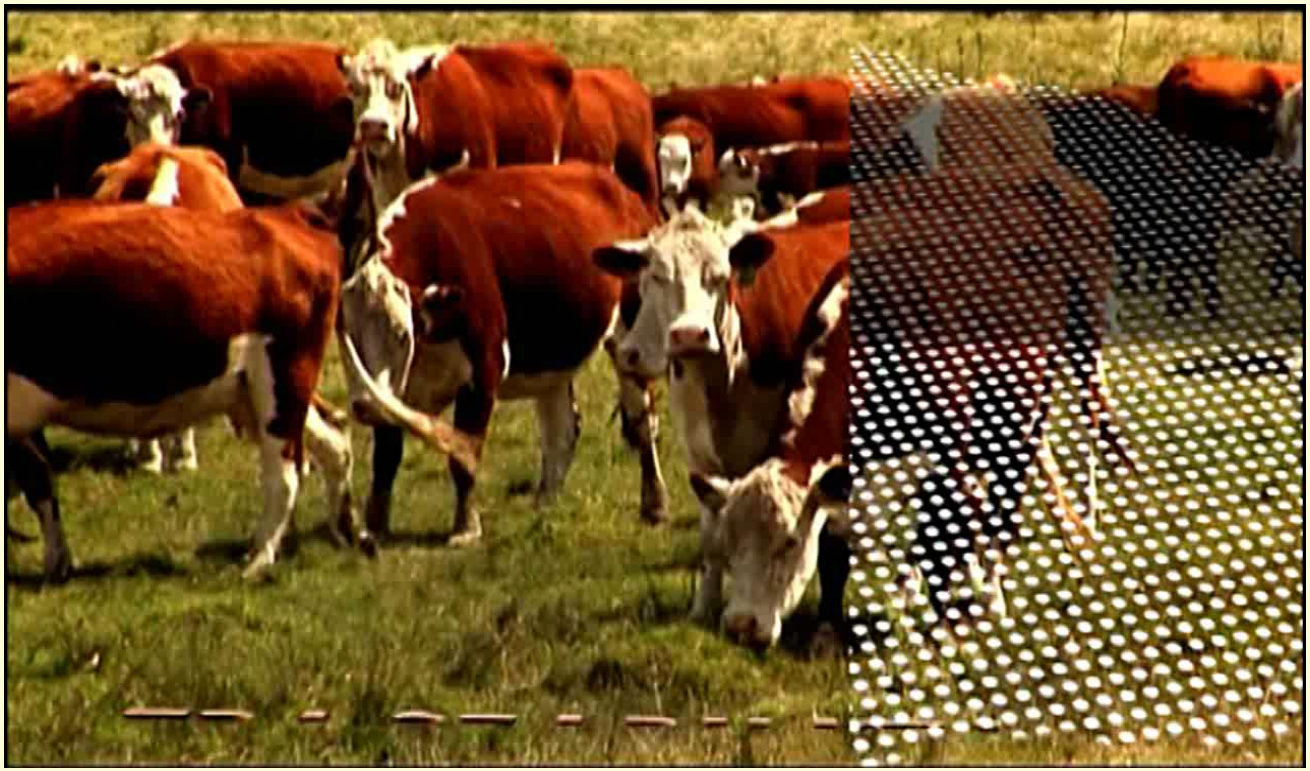
SISTEMA NACIONAL DE INFORMACIÓN AGROPECUARIA

Construction of an information platform as a public good

Tracking system

Eartages and chips placed in each animal allows to identified:

- number
- owner
- birth season/year
- sex, breed and cross.



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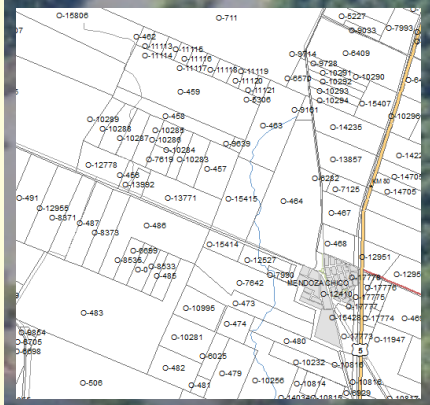
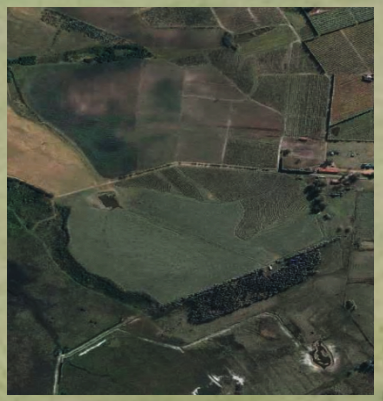
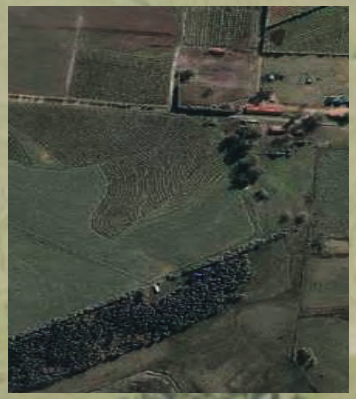
Construction of an information platform as a public good







Databases that includes

- Analysis of land use and soil conditions
- Models that simulate soilerosion
- CONEAT scale simulation model

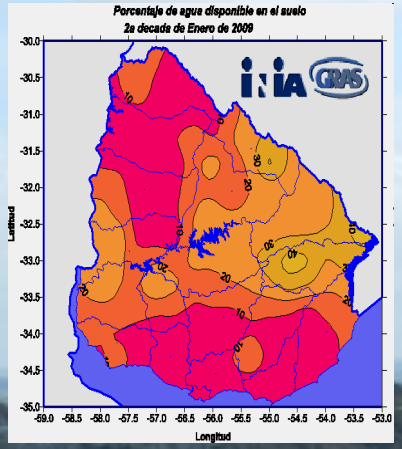
Web Map Service

SNIA

SISTEMA NACIONAL DE INFORMACIÓN AGROPECUARIA

Construction of an information platform as a public good

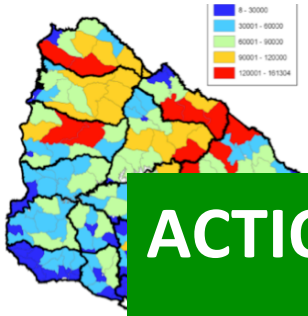
Agroclimatic information



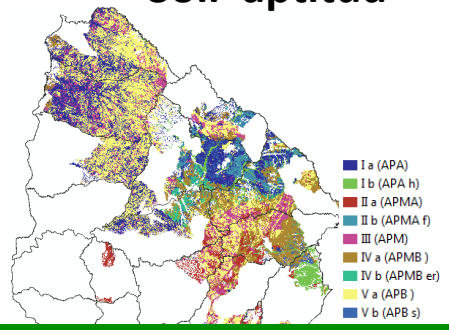
Soil Water Balance model, Meteorological forecasts, Quarterly outlooks, Present weather condition, Satellite's information. Weather statistical values, Meteorological frosts, Information and Remote Systems

Decision support platform for farmers and policies

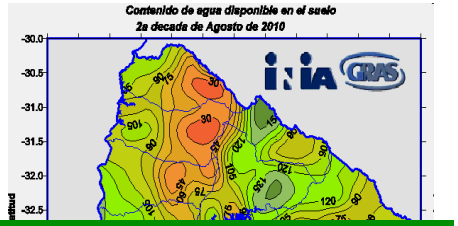
Animal stocks (SNIG)



Soil aptitud



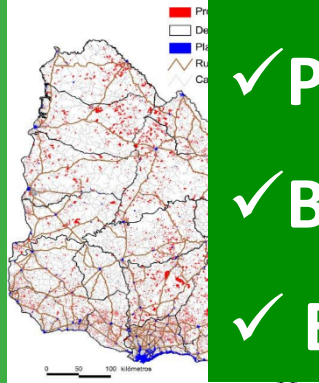
Soil water balance monitoring and propects



ACTIONS

- ✓Emergency declarations
- ✓Planification and development
- ✓Better insurances
- ✓ Early warnings

Family farm



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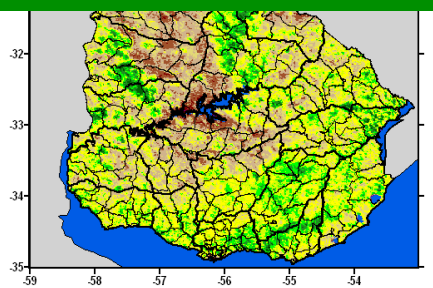
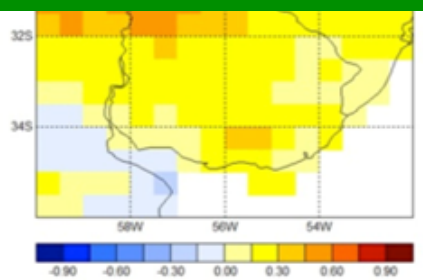





5376
398
MASSEY FERGUSON

Challenges

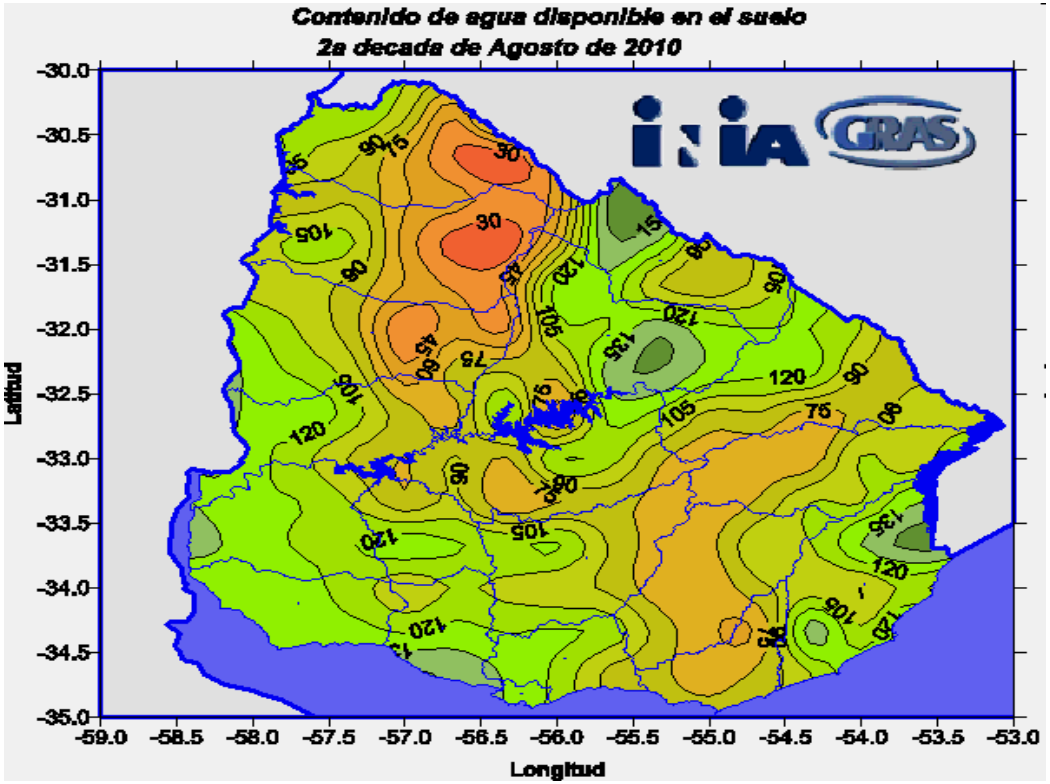
NOW: We need to promote the intensification with environmental susteinability

Challenges

BESIDES: We need to adapt ourselves to the climate change, manage risks

Challenges

BESIDES: We need to manage information in real time



Challenges

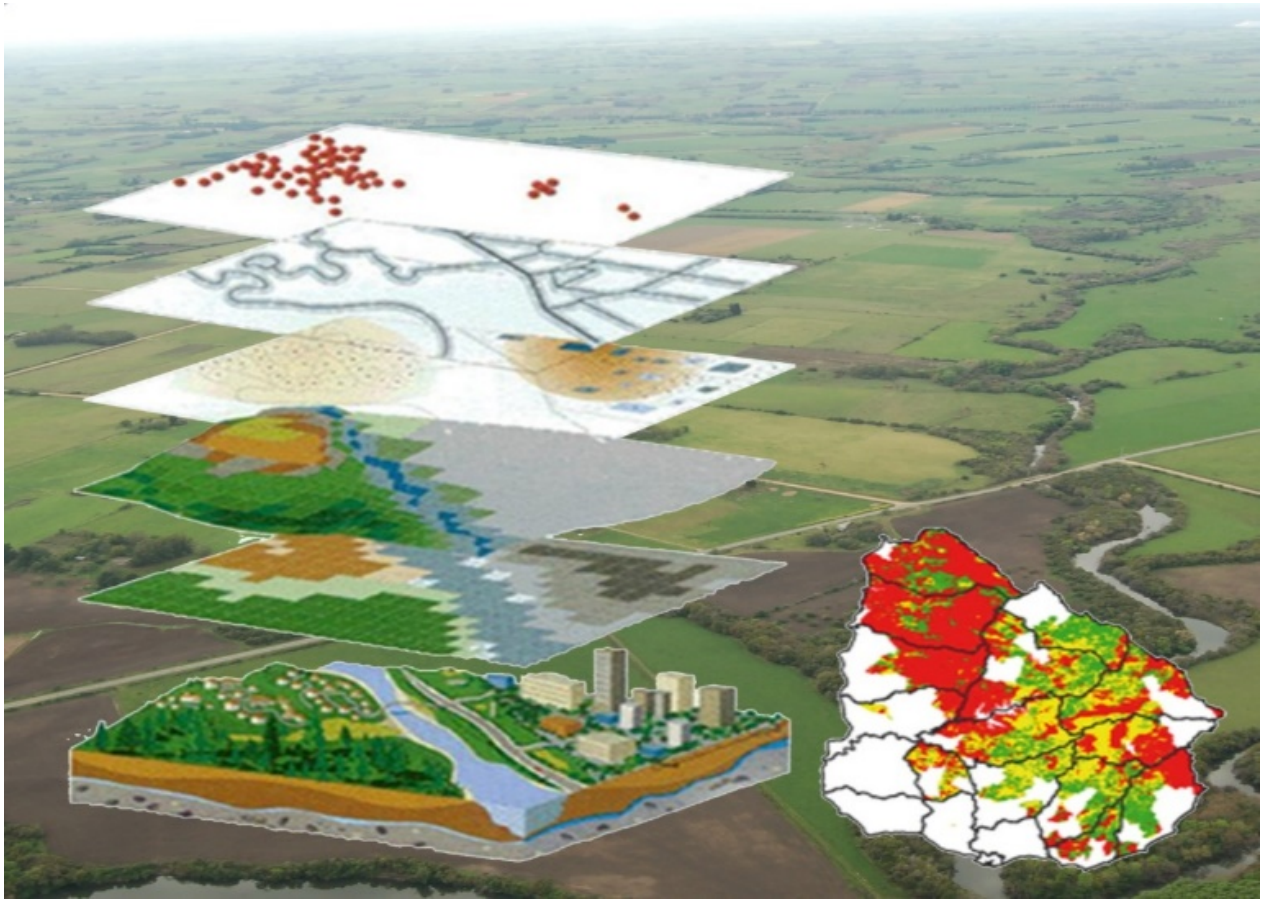
BESIDES: We must bet for quality and safety products

Challenges

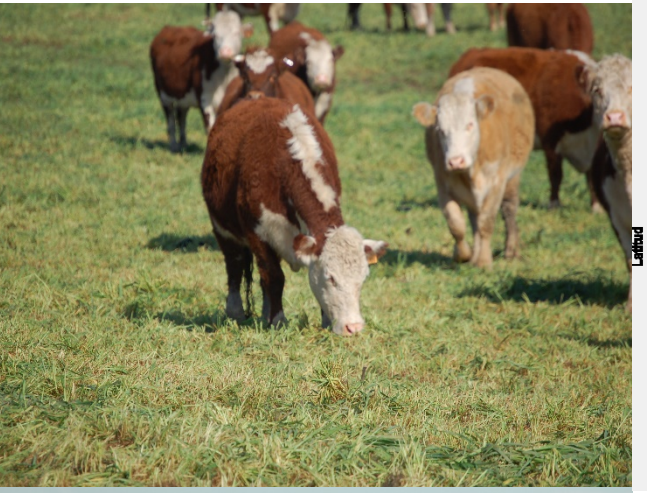
BESIDES: We must take the opportunity that gives us the world

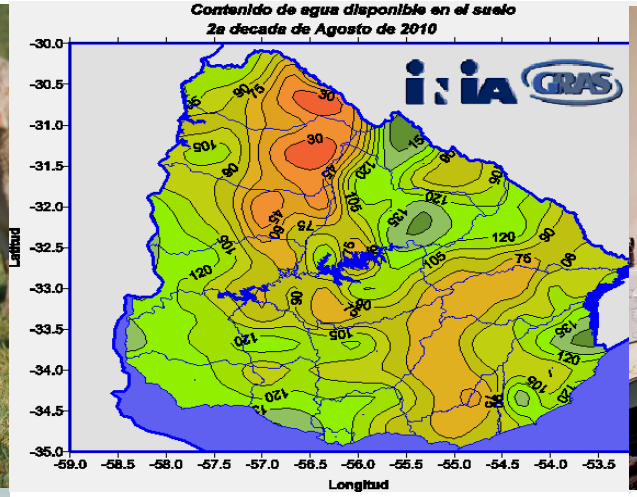
Challenges

BESIDES: We must promote de construction of useful climate services



Making different **interoperable** databases





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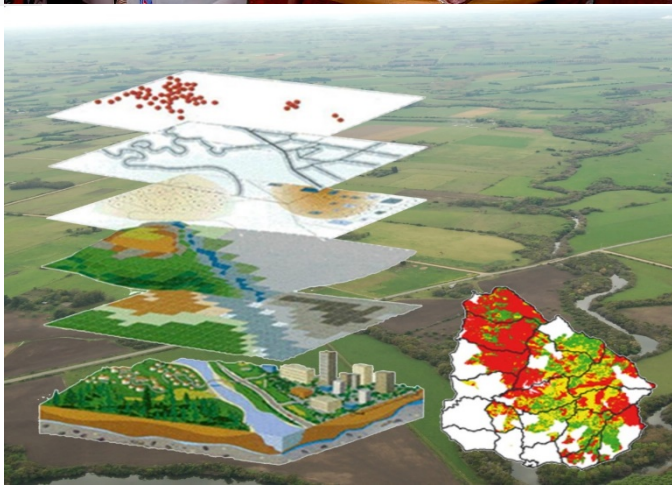
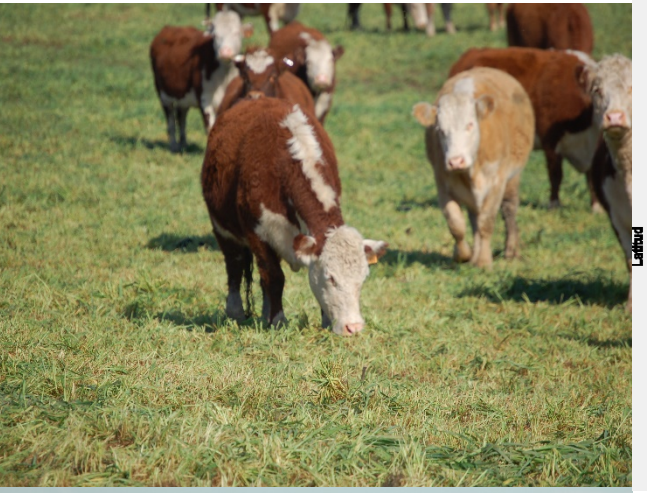
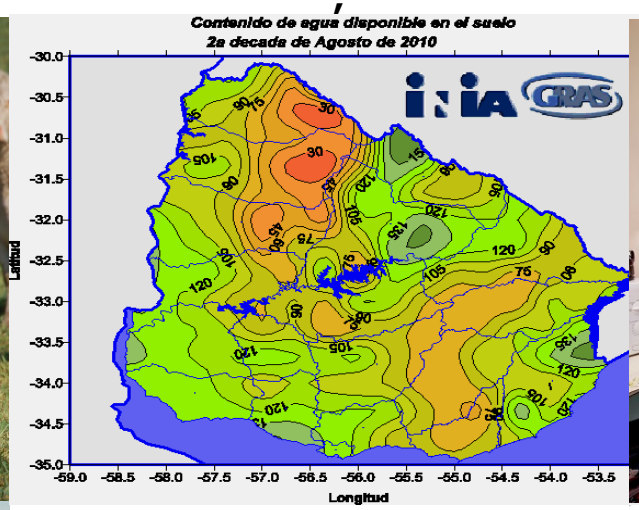


Generating **knowledge** through gathering, processing and analyzing data





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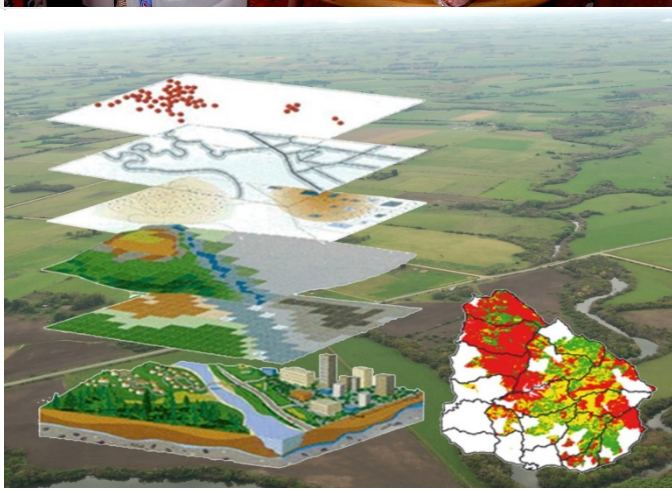
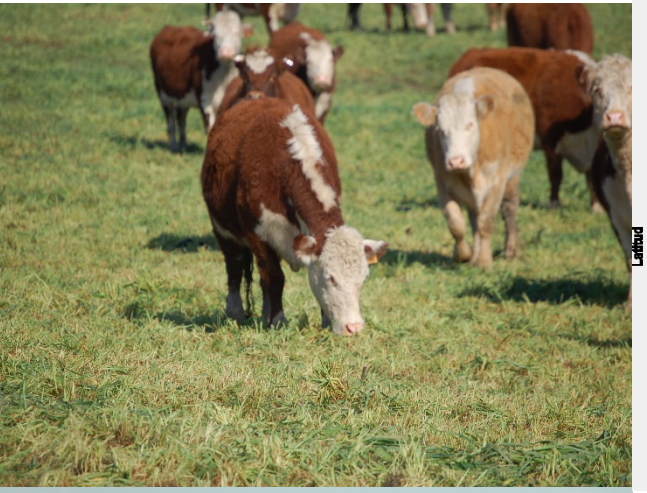
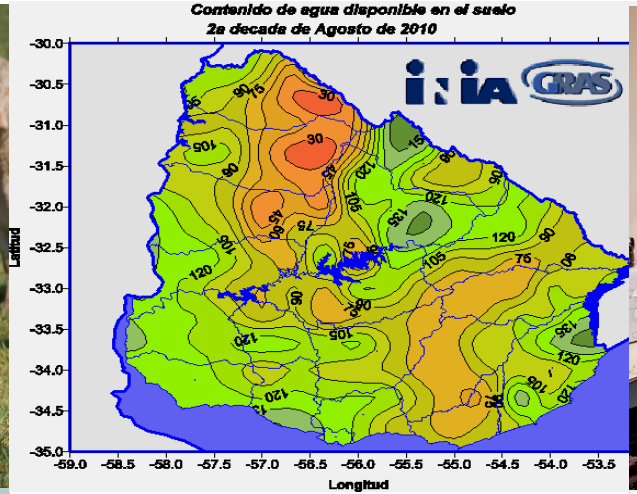


Developing products **translated** in agricultural information useful for all the society





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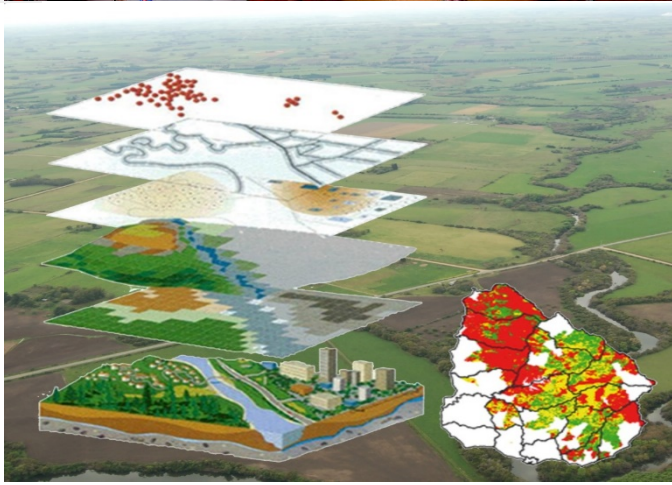
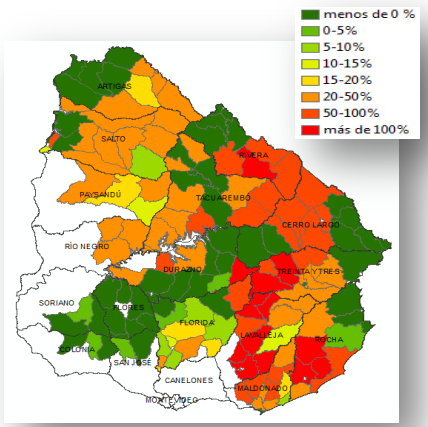


Further Refining the Agricultural Information System

Recommended future data uses/products:

- Vulnerability Mapping and Policy Evaluation
- Early warning system for livestock
- Agrochemical Monitoring
- Effluent Monitoring and Control
- Risk Assessment for Grain and Livestock
- Producer Registries
- Crop Trial Data Analysis
- Watershed analysis for irrigation development



Actual Land Use relative to Sustainable Carrying Capacity [%]

Source: FAO, 2013

The 5 elements of our smart integrated approach in agriculture

- Knowledge (R+D+i) and Information
- Infrastructure (public and private)
- Ecosystem services
- Institutions
- International cooperation under the UNFCCC principles (means of implementation).

Thank you!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