

Climate Change and Anthropogenic Impacts on Land Use and Agriculture in the La Plata Basin, South America¹

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Introduction

The La Plata Basin (LPB) is an area of great social, economic, and environmental importance, with a population surpassing 100 million inhabitants and representing 70% of the total Gross National Product of the region. The land use in the basin is highly dynamic and of particular importance for the region and also for the world economy and food security. During the last 40 years the

increase in demand of agricultural products, new agricultural technologies, and favorable climate conditions have caused significant land use change processes in the region, resulting in the prevalence of monocultures (maize, soybeans, sugar cane, planted forests, etc) and cattle grazing.



The project

The project CLARIS LPB - A Europe - South America network for climate change assessment and impact studies⁴ aims:

- To predict and assess the impacts of climate change;

- To design adaptation strategies for:

- land-use;
- agriculture;
- river transportation;
- water resources;
- rural development;
- hydroelectricity;
- ecological systems in wetlands.

Duration:

four years, October 2008 - October 2012.

Coordination:

Dr. Jean-Philippe Boulanger (IRD France).

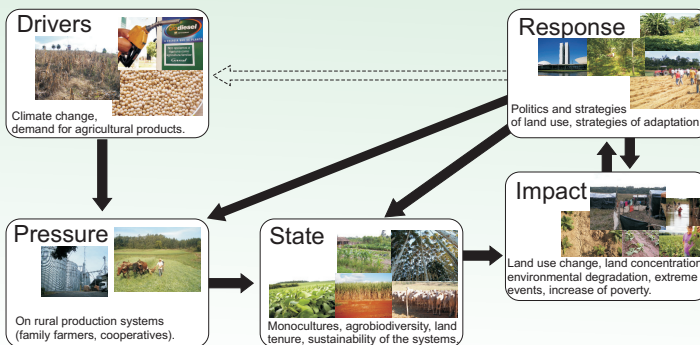
Funding:

the project is funded by EU FP7, with a total budget of 3.499.986,00 €.

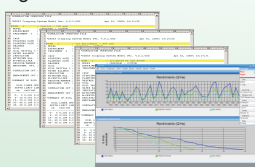
Land use, agriculture and socio-economic impacts

To reveal deep and comprehensive insights into the net of impacts and interdependencies of climate variability and change and anthropogenic adaptation measures.

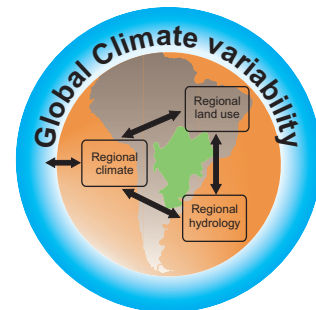
Identification of driving force – impact – response chain relationship between different climate change scenarios and/or induced anthropogenic reactions on land use (DPSIR Framework):



Modelling of impacts of climate change on crop yield (with INTA) with a GIS base for micro-regions.



Description of social and economic implications following potential land use changes due to different climate change scenarios. impact assessment based on participatory methodes with stakeholders.



Expected outcomes

- Analysis of the vulnerability of current cropping systems (small and large farms) through simulations for different climate scenarios;
- Assess the costs of climate change for agricultural systems and its social impacts;
- Overview of possibilities to adapt regional land use patterns towards changing frame conditions with respect to sustainability.

Web site:

www.claris-eu.org