



CLIMASTER: climatic change, farming systems, natural resources and regional development

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► To cite this version:

Philippe Mérot, Chantal Gascuel, Samuel S. Corgne, Daniel Delahaye, Alexandre Joannon, et al.. CLIMASTER: climatic change, farming systems, natural resources and regional development. Agriculture, Water Management and Climate Change, Mar 2008, Bath, United Kingdom. pp.1. hal-01458498

HAL Id: hal-01458498

<https://hal.science/hal-01458498>

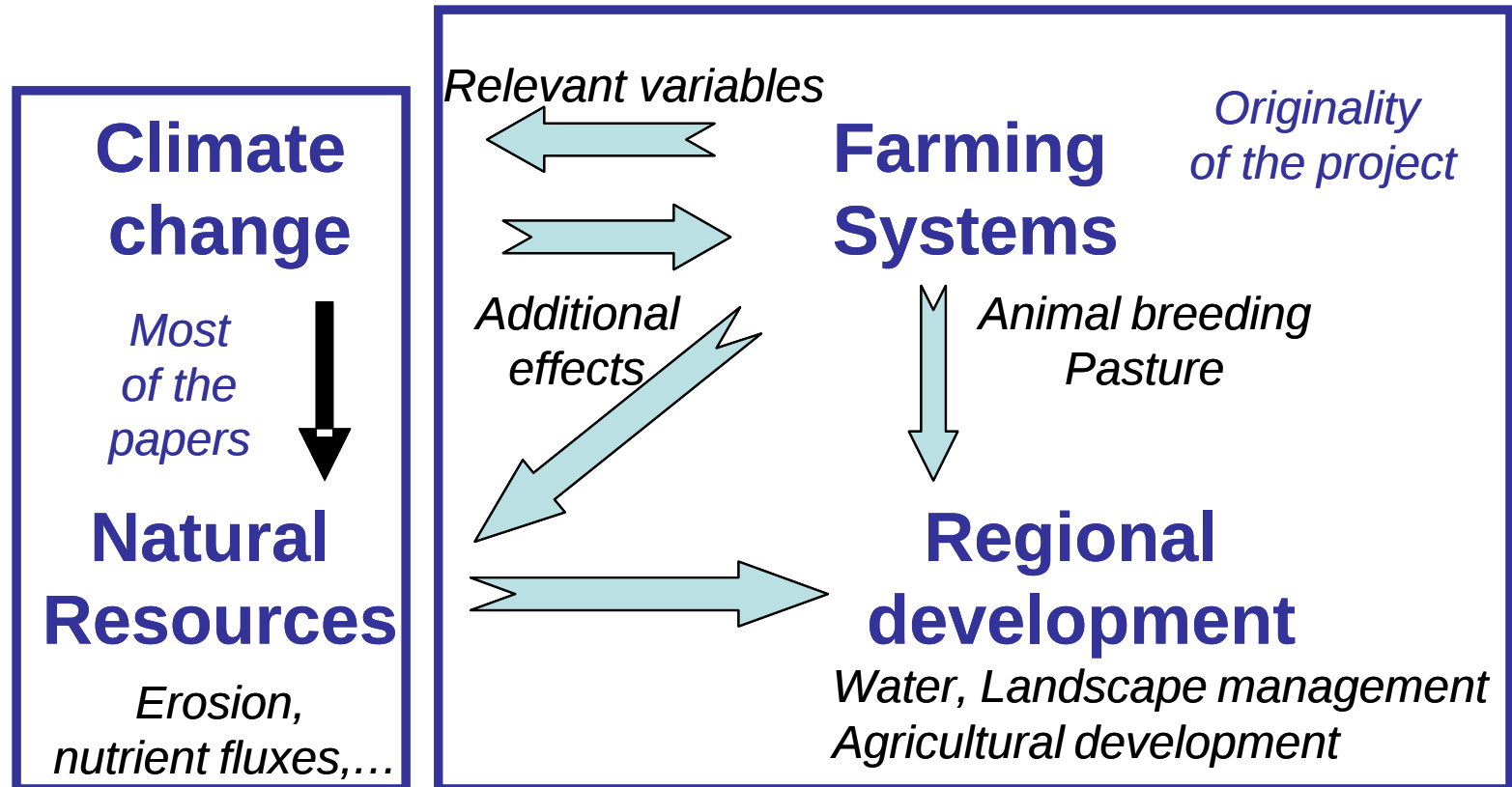
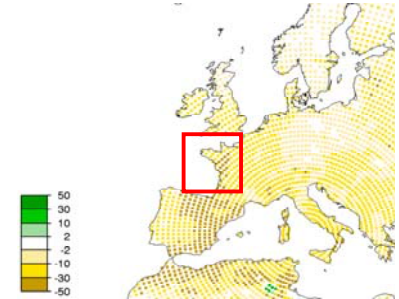
Submitted on 6 Jun 2020

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CLIMASTER: “Climatic change, farming systems, natural resources and regional development”

P. Merot, C. Gascuel-Oudou, S. Corgne, D. Delahaye, A. Joannon,
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Hypothesis:

- Farmers and water managers have already taken account of some impacts of climatic changes, especially those linked to extreme conditions. Analysing them allows to better anticipate the adaptations and their impacts.

Objectives:

- To address the interactions between the climatic change, the farming systems, the natural resources and the regional development.
- To develop a shared perspective on climate changes between scientists, stakeholders and citizens: 10 research teams and 15 structures devoted to territorial development and farmer advising.

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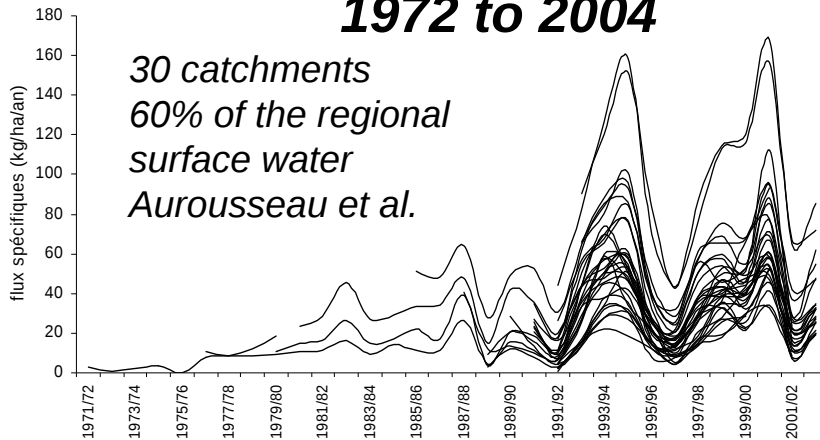
WP 1. To assess the regional climatic changes: trends, variability and extreme events and effects

WP 2. To analyse the way farmers account for climatic changes in their practices. Survey & Remote sensing

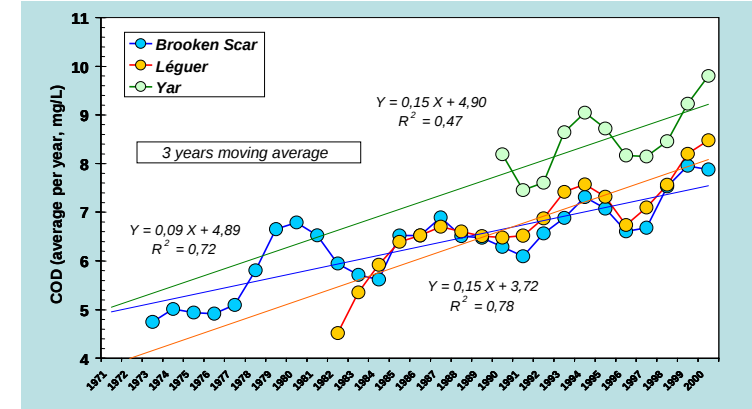
WP 3. To analyse the impact of climatic changes on the natural resources, mainly soil and water quality. C & erosion. N, DOC and SS.

WP 4. To analyse the position of farmers in a sociological and psycho-sociological perspective

N kg/ha/year 1972 to 2004



DOC, mg/l average per year 1971-2000



Starting point

1976 : Climate

A dry summer

Cycles

Climate (NAO)

Cycles of rainy years

Trends

Farming System

N Fertilisation increasing

Similar analysis

Farming system (manure)

Organic matter in soil

Wetland Management

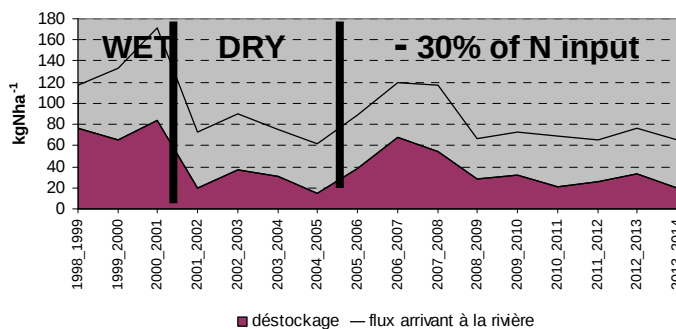
Before 76: supply limited process, controlled by annual mineralisation, Temp

After 76 : transport limited process, controlled by Rainfall and N storage in shallow GW

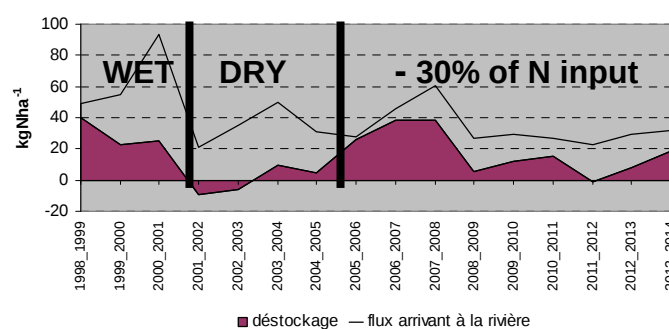
The future depends on the past...1999-2014

Ratio of N stored in GW / total N fluxes (Durand et al.)

1) High N input and high N storage



2) High N input and low N storage



**Climate
and
resilience**