

Sahels North, Sahels South: Building human indicators of a relative desertification

M. Saqalli

AMMA: African Monsoon Multidisciplinary Analysis International Conference, 03-05 July 2012, Toulouse, France

Desertification: definitions, agreements & stakes

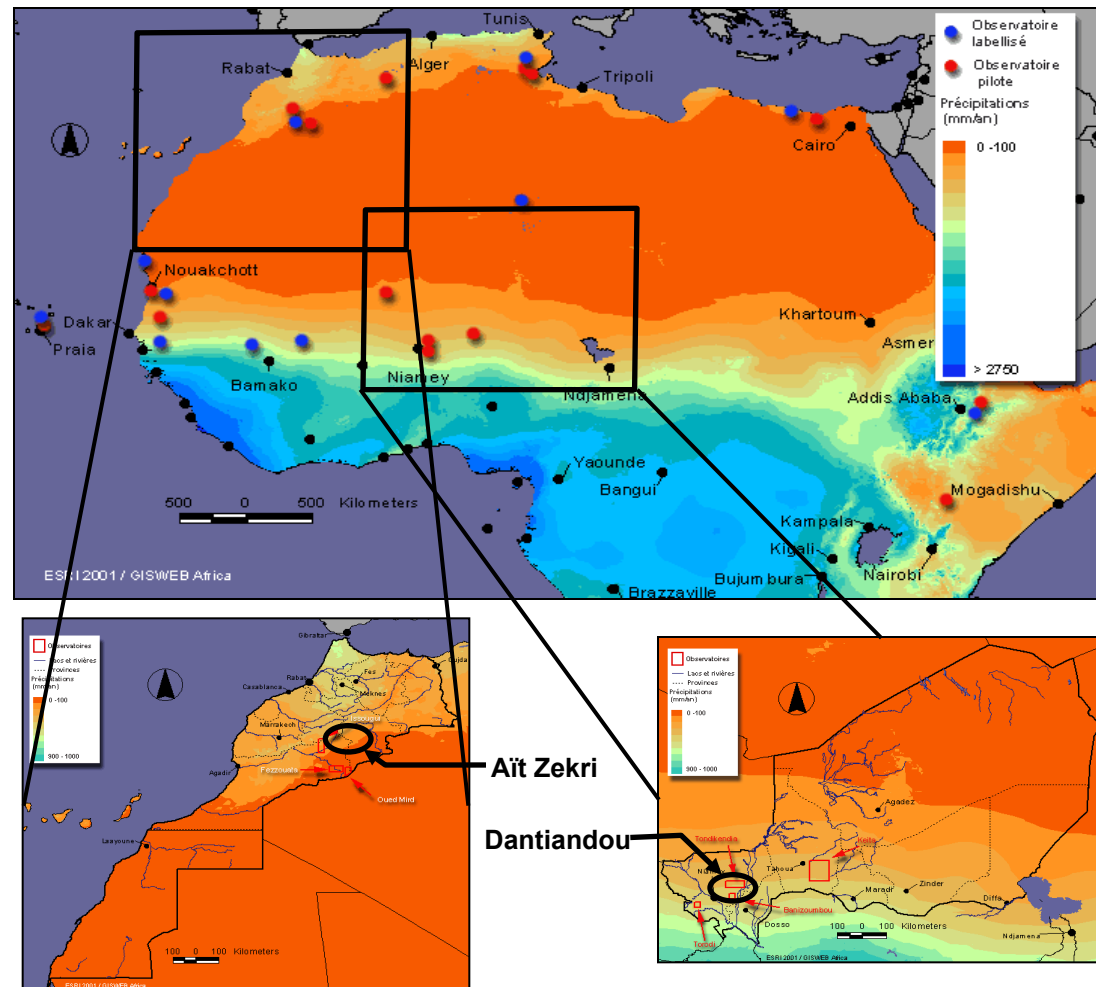
- A biophysical definition of desertification: *"Land degradation in arid, semi-arid and dry subhumid areas due to various factors, including climate variations and human activities"* CNUED, Rio 1992
- Rio 1992, Paris 1994, ratification 1996: Convention to Combat Desertification : consequences?
- Beyond diagnostic, no global policy regarding:
 - ▣ Identifying human distresses caused by desertification
 - ▣ Combating desertification impacts on humans

A first step: building human indicators of desertification

Building a comparison between sites regarding the articulation between society and territory

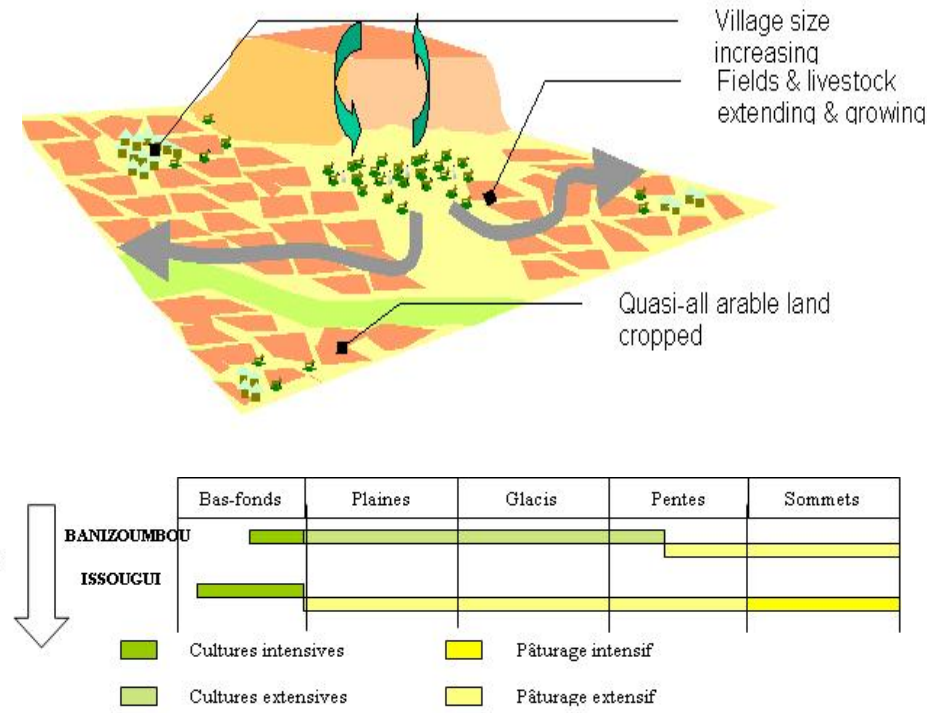
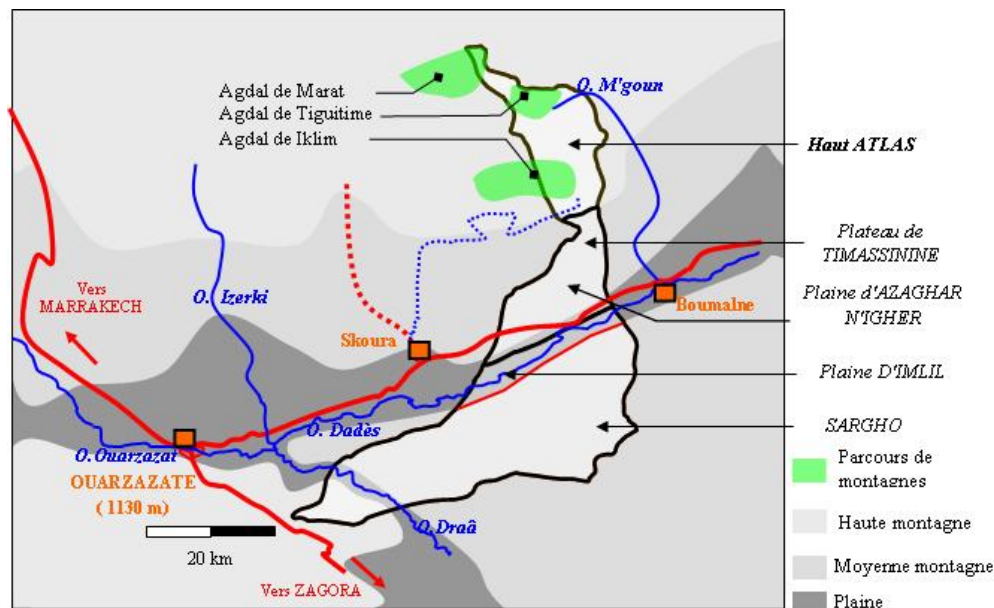
- Building indicators:
 - ▣ Scientists: Valid
 - ▣ Politics: Agreed
 - ▣ Policy: Comparable
- Two contrasted shores of the Sahara:

Based on available documents,
How to compare
two sites representative
of the shores of Sahara?



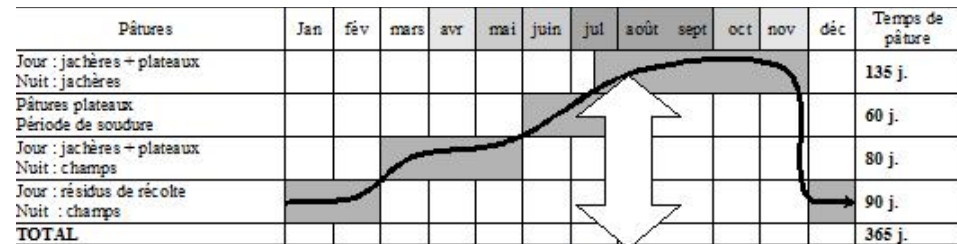
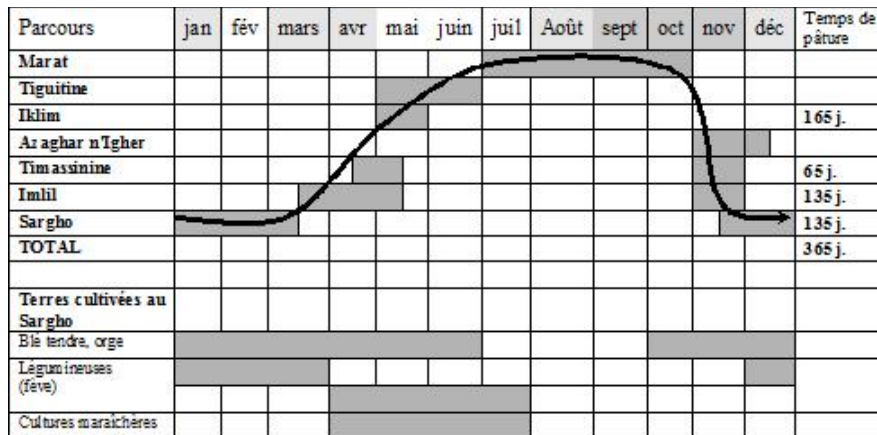
Comparing sites according to space: human-related dynamics on the territory

- Ecological organizations follow toposesquences
- Human settlements follow :
 - ▣ History at global scale,
 - ▣ Ecology at local scale

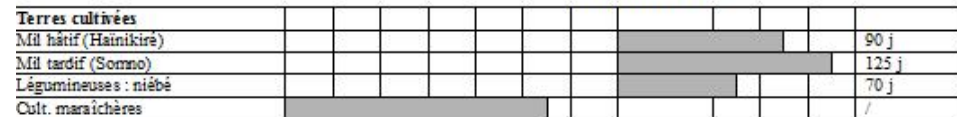


Comparing sites according to time: human-related dynamics along history

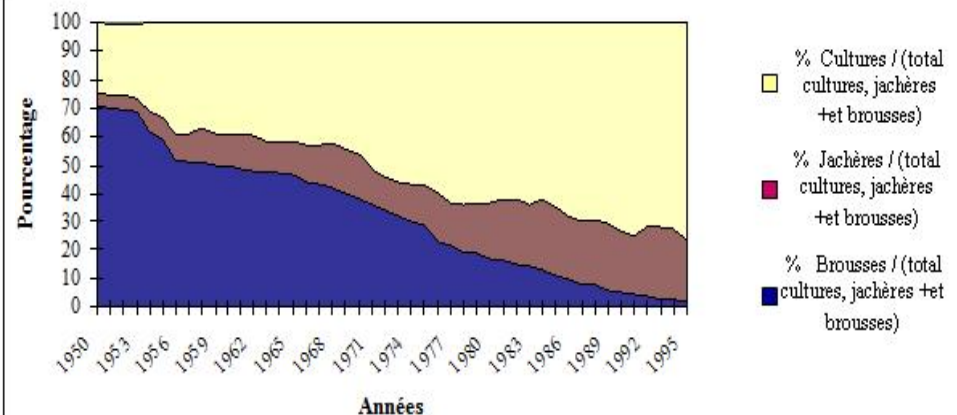
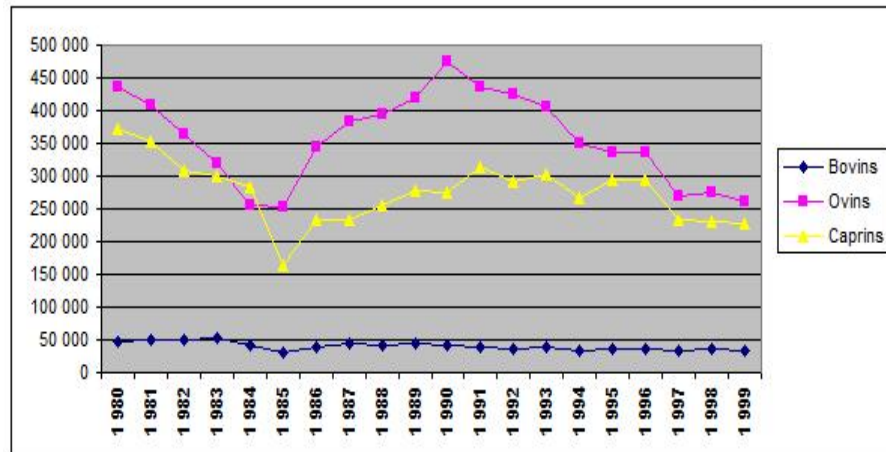
Time cycle: using seasonal resources



Transhumance

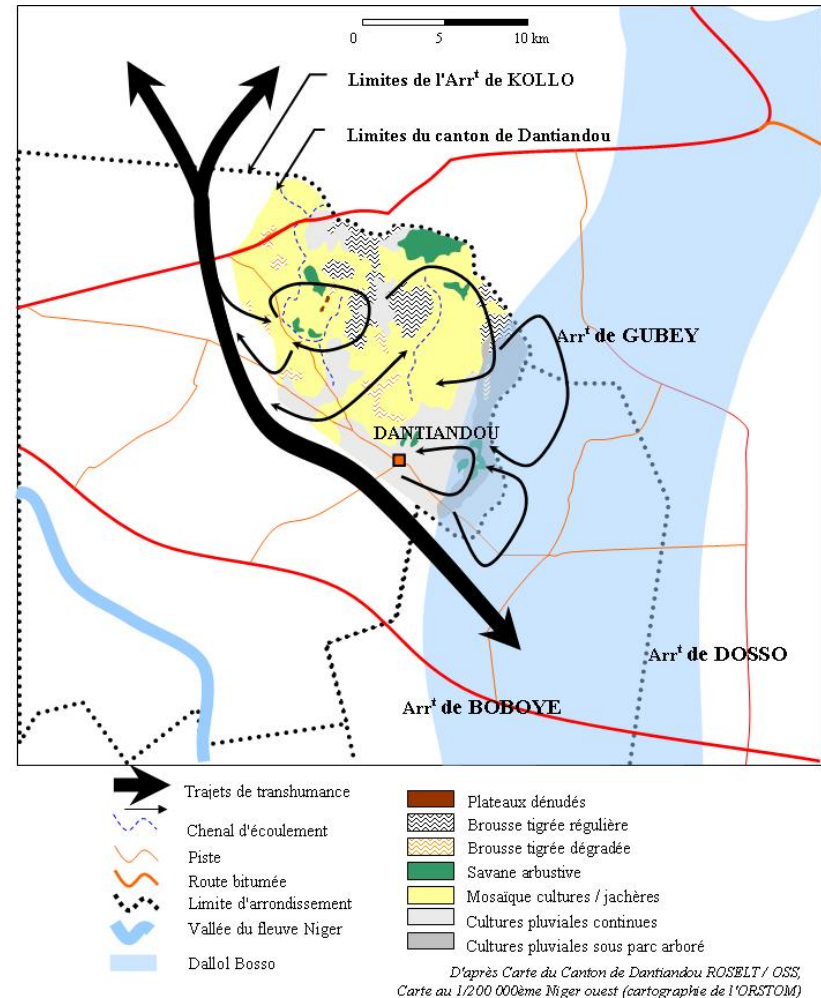
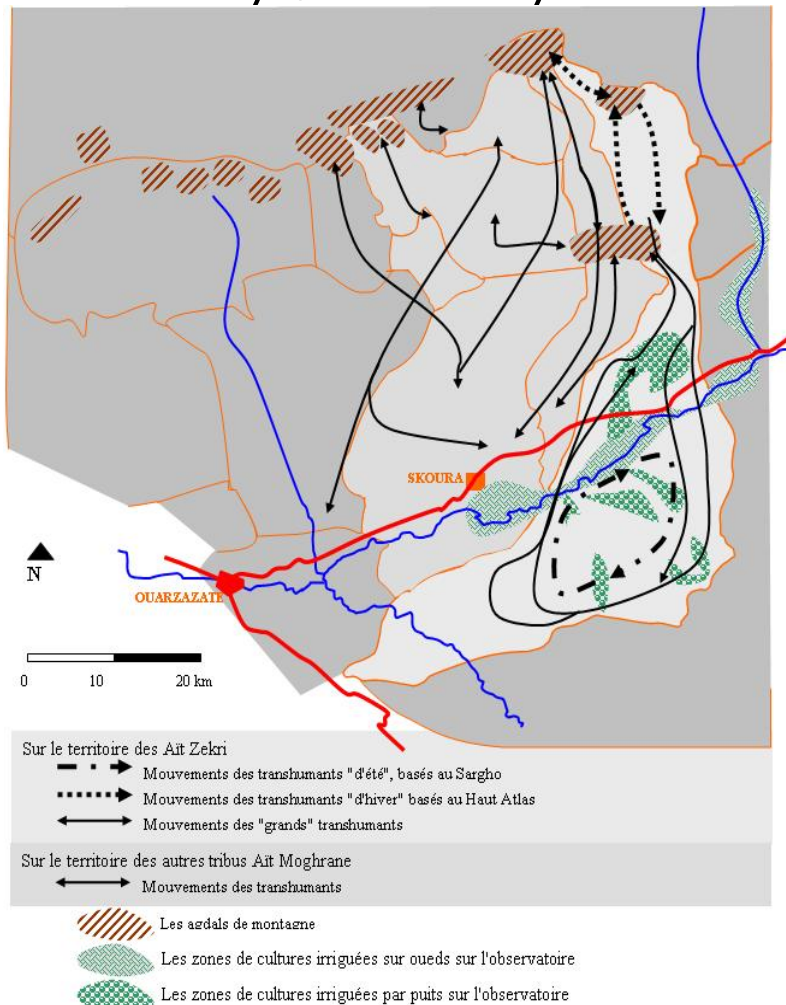


Time dynamics: expanding/keeping production assets



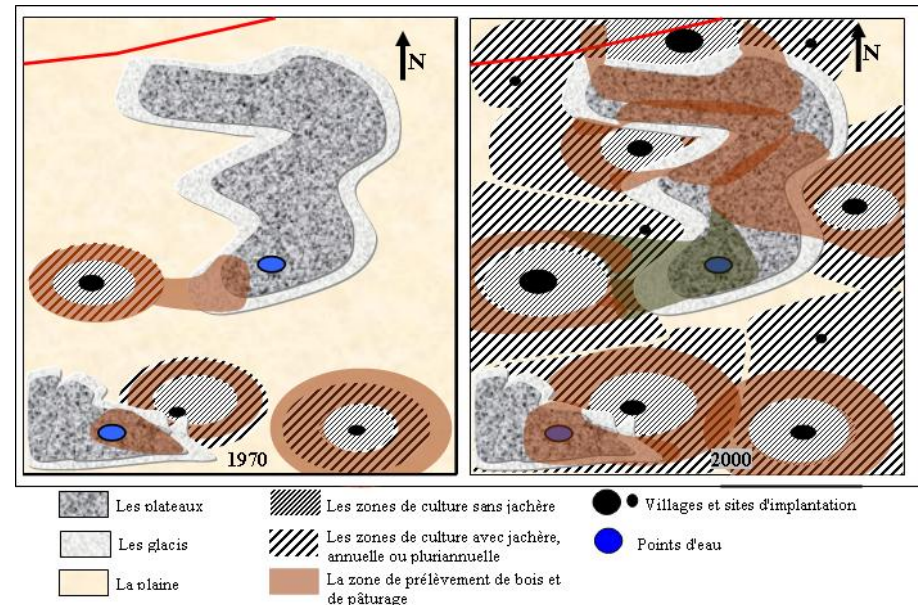
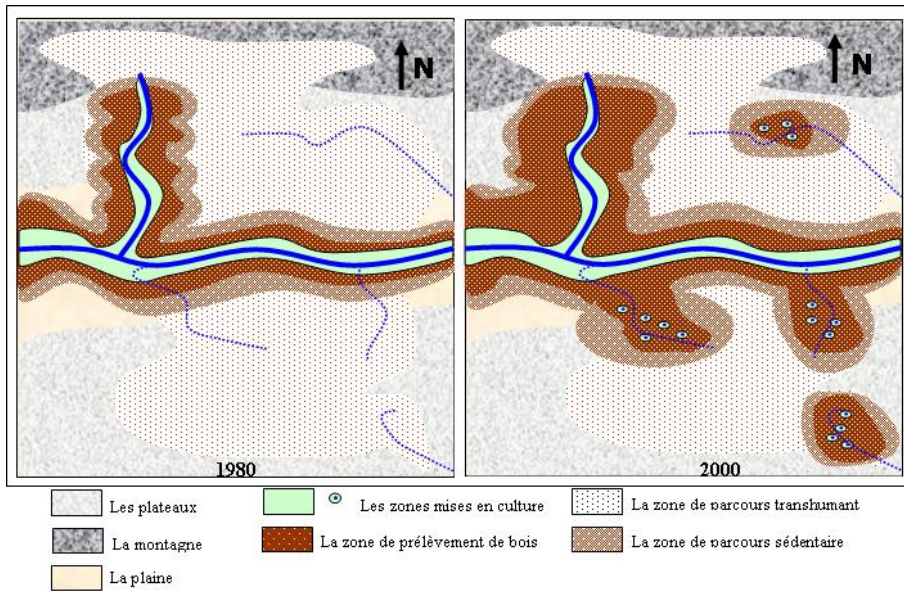
Comparing sites according to dependancy

- At global scale, an adequation between resources use and resources scarcity & variability

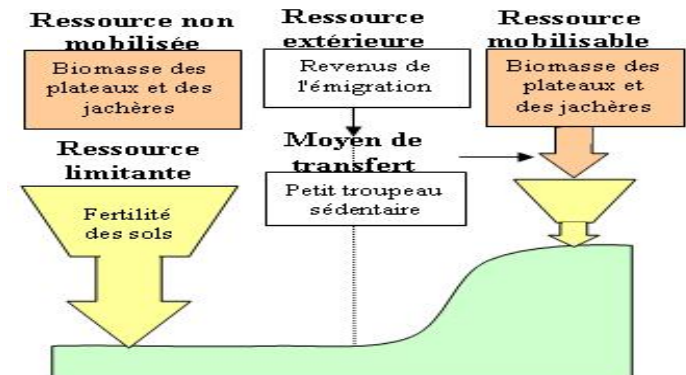
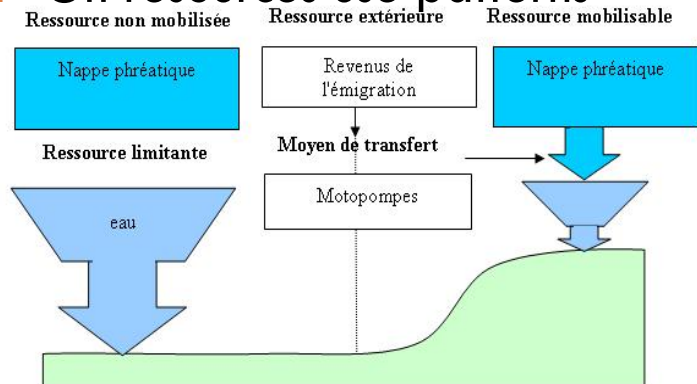


Building human indicators

On space dynamics



On resources use patterns



Building human indicators

- On socio-economic indicators
 - ▣ Density a demographic growth (with & without permanent & temporary emigration)
 - ▣ Parts in incomes of activities with no interaction with local resources (migration, trade of non-local products) for each production-oriented group
 - ▣ Parts of different resources already mobilized by the different groups (river water vs. ground water; plain pastures vs. plateau pastures)
 - ▣ Parts of resources managed and controlled along common rules (pastures, water)
 - ▣ Parts of population vulnerable to risks regarding resources (droughts)
 - ▣ Gini index on decapitalization of securization Assets' (livestock)
- ▣ Along the year and on several years

Merci / Thank you

