

---

# Vulnerability of family livestock farming in Brazil and Uruguay: a comparative analysis in the Livramento – Rivera border

---



Paulo Waquil  
([waquil@ufrgs.br](mailto:waquil@ufrgs.br))  
Federal University of  
Rio Grande do Sul  
(UFRGS), Brazil



- 1st meeting in Bagé (Brazil), in November – cooperation and planning

- Participant Institutions: research and extension services, universities

- EMBRAPA, EMATER, UFRGS, UNIPAMPA, URCAMP (Brazil)
- PLAN AGROPECUARIO, UDELAR (Uruguay)



- Authors: Waquil, P.; Ribeiro, C.; Andreatta, T.; Carriquiry, R.; Neske, M.; Gonzales, M.; Claudino, L.; Perleberg, C.; Borba, M.; Schlick, F.; Trindade, J.; Malaquin, I.; Saravia, A.

Livramento –  
Rivera border

Rosario



---

## - Motivations for this study

- Livestock production is one of the most important activities in the region
  - Strong tradition, since the occupation in the 16th century, but recently has been suffering competition from production of grains and forestry
  - Displacement for marginal areas
  - Family livestock farming:
    - small areas, autonomy, low levels of inputs, risk aversion
    - little research and extension services for these family farmers
-

- Also, lack of public policies directed to family livestock farmers
- Increase in price of land (due to increase in production of grains and forestry)
- Evasion of rural population, specially young and women
- Climate changes: repeated droughts
  - Threats to the social reproduction of family livestock farmers, vulnerability



- Despite the geographical proximity (dry border) and the environmental similarities, family livestock farmers are subject to different political and economic conditions that may influence their perceptions of risk and their reactions
- Main objective: a comparative analysis of the factors that may cause vulnerability in the border region between Brazil and Uruguay, as well as the farmers perceptions on the risks and the strategies used to mitigate those threats



---

- A brief review on vulnerability:

- Exposure to risks and inability to recover when facing those situations
- Exposure to contingencies and stresses and difficulty to dealing with them (Chambers, 1989 and 2006)
- A result of: (i) degree of risk exposure; (ii) susceptibility to risk; (iii) adaptative capacity (De Sherbinin, 2007)

# The Brazil – Uruguay border: the 'Pampa'

- 16 interviews

- 8 in Livramento (Brazil)

- 8 in Rivera (Uruguay)

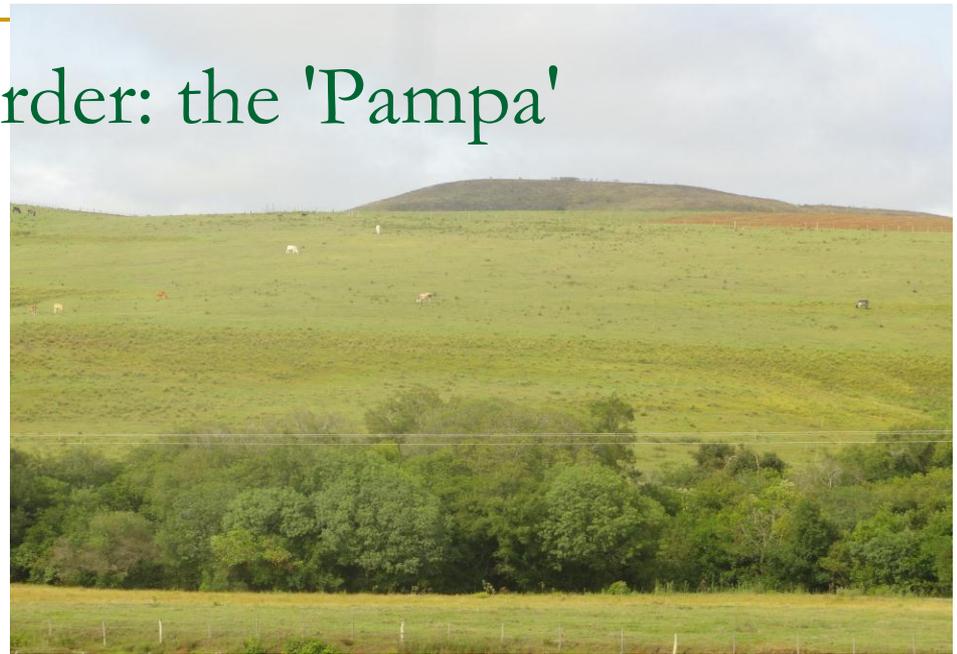
- Access to land:

- Brazil: between 30 and 230 ha, on average 120 ha

- Uruguay: between 32 and 572 ha, on average 260 ha

- Access mainly through inheritance, sometimes with later acquisitions

- Land is considered a limiting factor; in Brazil, farmers use to rent from neighbors; land prices have been raising



---

- Cattle herd:

- Brazil: around 130 heads; Uruguay: around 216

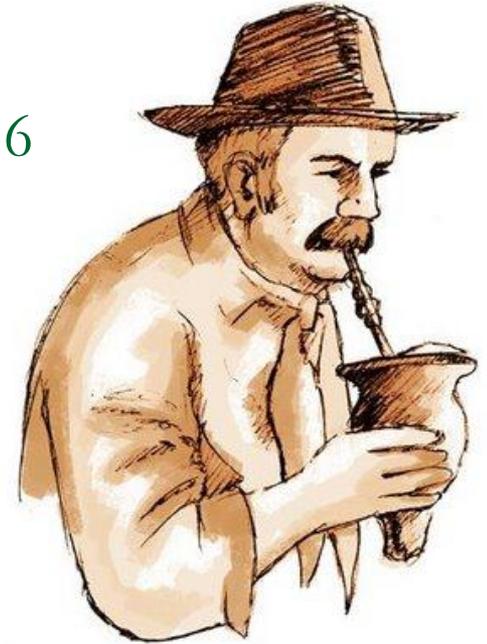
- Families:

- The couple and one son/daughter (50%),  
only the couple (25%)

- One or more son/daughter migrated to the  
city in search of urban opportunities

- Education levels are higher in Uruguay

- Experience in livestock farming: 42 years in Brazil, 46 in  
Uruguay; farmers are getting old, in Brazil there is easier access  
to retirement pensions, whereas in Uruguay income still has to  
come mainly from agricultural production, increasing  
vulnerability



# Main results: perception of vulnerabilities, possible strategies facing adverse conditions

## ■ Scale of importance

- 1 = not important
- 2 = of little importance
- 3 = more or less important
- 4 = important
- 5 = very important



## ■ Calculation of averages, minimum, maximum, standard deviation

Table 1. Perception of family livestock farmers on the main vulnerabilities to which they are exposed.

Variables	Brazil		Uruguay	
	Average	Standard Deviation	Average	Standard Deviation
Difficulty in identifying potential successors in the livestock farming properties	4.50	1.41	4.50	1.41
Mobility and dislocation difficulties (roads in poor conditions)	4.38	1.40	1.00	0.00
Weather factors (drought and harsh winters)	4.25	1.48	5.00	0.00
Difficulty in hiring labor	3.88	2.10	4.50	1.41
Exchange rates, uncertainties in the prices received	2.78	1.98	5.00	0.00
Input prices	2.25	1.83	5.00	0.00
Cattle-theft	3.63	1.768	3.86	1.85

Source: Field Research (2011).

- 
- Major internal vulnerabilities in both countries:
    - Succession
  - Common external factors:
    - Climate changes, cattle theft, difficulty in hiring labor
  - Main differences:
    - In Brazil, difficulties in transportation may restrict commercialization; on the other hand, exchange of services is more usual [reciprocity]
    - In Uruguay, farmers point out uncertainties related to exchange rates and variation of prices, besides high input prices
-

Table 2. Possible strategies of livestock farmers facing a situation of crisis and/or vulnerability

Variables	Brazil		Uruguay	
	Average	Standard Deviation	Average	Standard Deviation
Reduces expenses and expects the crisis to end	4.50	1.414	4.00	1.73
Cattle commercialization	4.25	1.488	1.00	0.00
Use of money from retirement pensions	3.50	2.070	3.75	1.89

Source: Field Research (2011).

- 
- In situations of crisis, some common strategies:
    - Reduce costs of production [lower use of inputs]
    - Use retirement pensions
  - Main difference:
    - In Brazil, farmers may sell cattle and wait the crisis to end
  - In general, they say that:
    - Do not use savings, do not borrow money, do not sell land, do not look for services outside the farm
      - Low dependence / autonomy is an important characteristic of family livestock farming for alleviating vulnerability
-

- 
- If they had surplus [money]:
    - Make improvements in housing and infrastructure [buildings and machinery]
    - Increase herds, improve production systems (Uruguay), buy more land to increase cattle production (Brazil)
    - In general, they would not apply surpluses in other activities (either agricultural or non-agricultural)
    - Among their main objectives for staying in livestock production, there is tradition and risk aversion, not profit maximization
      - Although production of grains and forestry bring more competition to the region, tradition and appreciation of the activity are also important characteristics of family livestock farming for alleviating vulnerability
-



- To conclude: in the border region: mostly similarities, but some differences
- Vulnerabilities are associated with both internal and external factors
- Characteristics of livestock farming help alleviate those conditions

Thank you!

