Sweet sorghum
methodological exploration of a multifunctionality to innovate in Haitian agriculture

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Introduction

Institutional conditions
A project supported by ANR between 2010 and 2013
University – a private foundation – companies from
A project first of all concentrated on the introduction of
experimental conditions in different situations of
A part of socioeconomic analysis on the condition

Landscape around the implementation
Sorghum: different uses in the world
New industrial interest related to a better resistance
The potentiality of the multifunctionality of sweet
A literature which assumes that the multifunctionality in developing countries.
Definition of the hypothesis in terms of complementary research questions

1. What are the conditions for the SS development in Haiti in the alcohol sector?

2. How the animal feed sector is an important component to process by-products of the first use or and to develop new types of demands about sorghum?

3. How the development of these previous uses would impact on the household living conditions and also on the macroeconomic situation?
Methodological and conceptual frameworks

Sectorial innovation system (Malerba) as frame of process stem from interactions between stakeholders to a same business sector.

- **Surveys since 2011:**
  - 2012: first surveys to explore the potential uses of sweet sorghum.
  - 2013: complementary surveys (n : 91) about sweet sorghum.
  - 2014: institutional surveys and interviews with stakeholders.

- **Survey scheme for the third phase:**
  Surveys from resource persons from institutions and researchers.
  Semi-structured interviews with stakeholders of different categories:
  - Cul de Sac plains
  - Lalouère district
  - Poultry industry around Port au Prince

- **End of project stakeholders’ workshop: validation of interim results by stakeholders**
**Result n°1**

What are the conditions of **SS** development in Haiti in the alcohol industry (kleren)?

[Diagram showing the flow of sugarcane production and processing in different areas of Haiti, including Cul de Sac and Lalouère districts.]

**Cul de Sac area**
- International market
- National market
- Rhum in bottle
- Rhum in market

- Barbancourt (Big distilleries)
  - 35,000 t de canne à sucre
- Agriterra
- Borgela
- Fernas
- Merlay
- Small and medium distilleries

**Lalouère district**
- National market
- 228,156 gallons of kleren
- 16 calvaires
- 28,519 bays of sirop
- 8 sugarcane mills
- 114,075 t de canne à sucre

**Sugarcane producers**
- Products flow
- Services provided and paid by distilleries
- Services provided but not paid by distilleries
- Burnt bagasse (used as fuel)
Result n°2

How the animal feed sector is an important component to process by-products of the first use or/and to develop new types of demands about sorghum?
Result n°3

How the development of these previous uses would impact on household living conditions and also on the macroeconomic situation?
Systemic aspect of the bottlenecks

**Introduction**

**Research questions**

**Methods and concepts**

**Results**

**Conclusion**
Conclusion

- Identification of various bottlenecks of sweet sorghum implementation in local alcohol and poultry feed sectors
- A complementarity between the alcohol sector and the animal feed sector which has not been verified
- The conditions to implement these innovation are systemic: they demonstrate the necessity to integrate organisational, institutional and technical aspects in the methods of ex ante impact studies.
Thanks for your attention