



From a qualitative multi-criteria assessment to a detailed economic and risk analysis of crop-livestock technology options at farm level

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Activities

Outcome 1:	Farmers and farming communities are practicing more productive, resilient, profitable and sustainably intensified crop-livestock systems linked to markets.
Output 1.1:	Research for more productive, intensive, diverse, profitable and resilient crop ; Livestock and integrated crop-livestock farming systems are identified and disseminated to farmers.
Activity 3:	Test and disseminate integrated crop-livestock-soil systems to increase and sustain productivity and reduce risk.
Sub-activity 3.1	From a qualitative multi-criteria assessment to a detailed economic and risk analysis of crop-livestock technology options at farm level.



Objectives

To assess effects of SI options and scenarios on a wide range of SI indicators, including risk and economic indicators.

To better understand of potential tradeoffs and synergies between different domains of SI

Scaling of SI options



Achievements

Planned Milestones	Deviation from Planned Milestone	Achievements towards Output
1. Economic indicators for assessing SI	1. Content of the milestone is not affected. Delivery is expected by May 2019.	1. Data collection finalised; data cleaning and analysis are ongoing.
2. Effects of crop-livestock intensification options on economic indicators	2. No deviation (i.e., May 2019)	2. Assessment of the effect of what-if scenarios on several indicators ongoing.
3. Severity and frequency quantified of risks perceived by farmers	3. Content of the milestone is not affected. The delivery expected by May 2019.	3. Data collection finalised. Data analysis ongoing
4. Contribution to technology handbook chapters 1, 2 and	Interested to contribute but do not know the current status	



Milestone 1: Economic indicators

Living income

- what? → cost for 'decent' housing, health care, education and a nutritional diet in the region for a reference household.
- how? → interviews, expert panels....
- Calculation of the living income benchmark – compare it with actual income
- Status: Student (IPR-Mali) is defending work for the Master thesis.

Source: in development



Milestone 1: Result Living Income

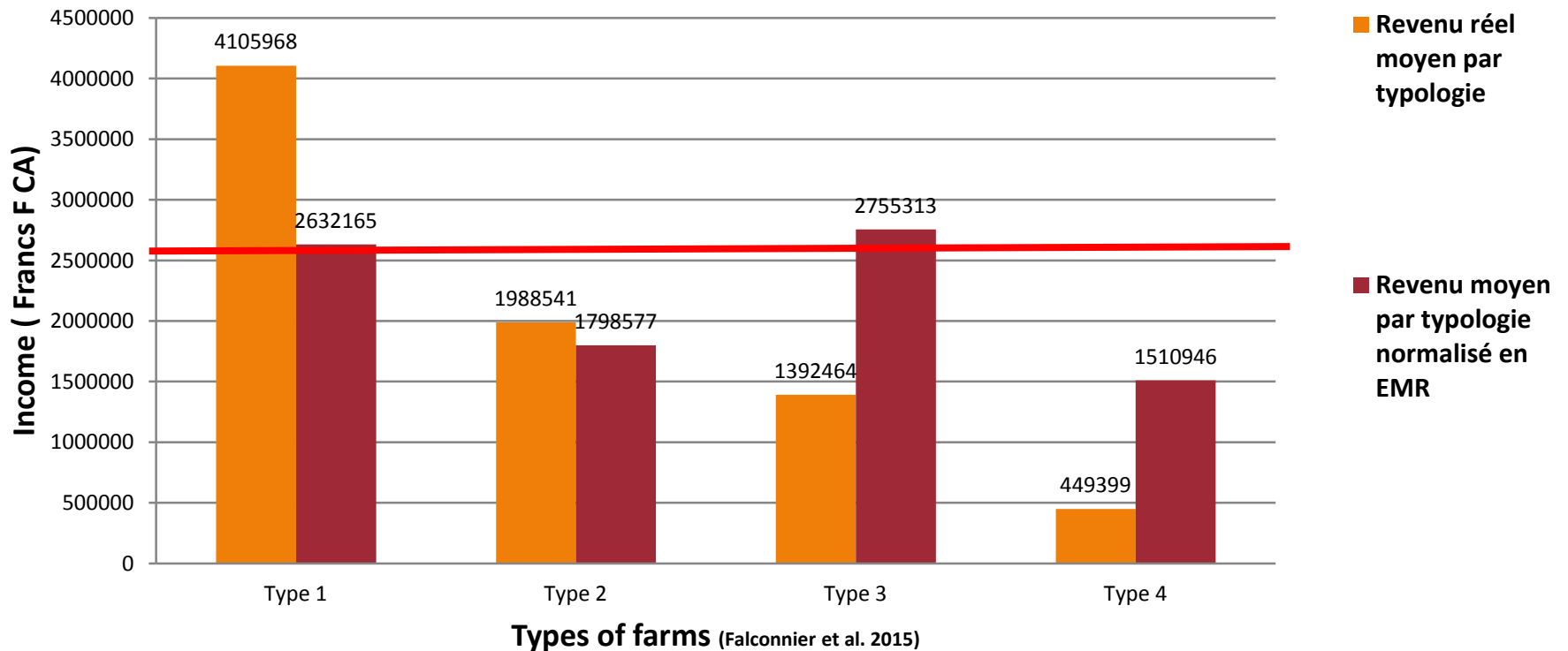
Size of the reference household size: **18.85 EAM**

The living income: **2 565 983 F CFA/year**



Milestone 1: Result Living Income

Average actual income per farm types at the level of the reference household size





Milestone 2: effect of crop-livestock intensification options on a range of indicators

- Scenario analysis to explore the effects of potential future developments in policy and agricultural interventions
- Multiple indicators: economic, environmental, food security and productivity

- Method:
 - building on the work of Falconnier et al. (2017) adding extra indicators and scenarios.
 - DSSAT crop modelling
 - Survey database for determining farmers' initial resource allocation

- Status: WUR MSc student is expected to finish report by June 2019



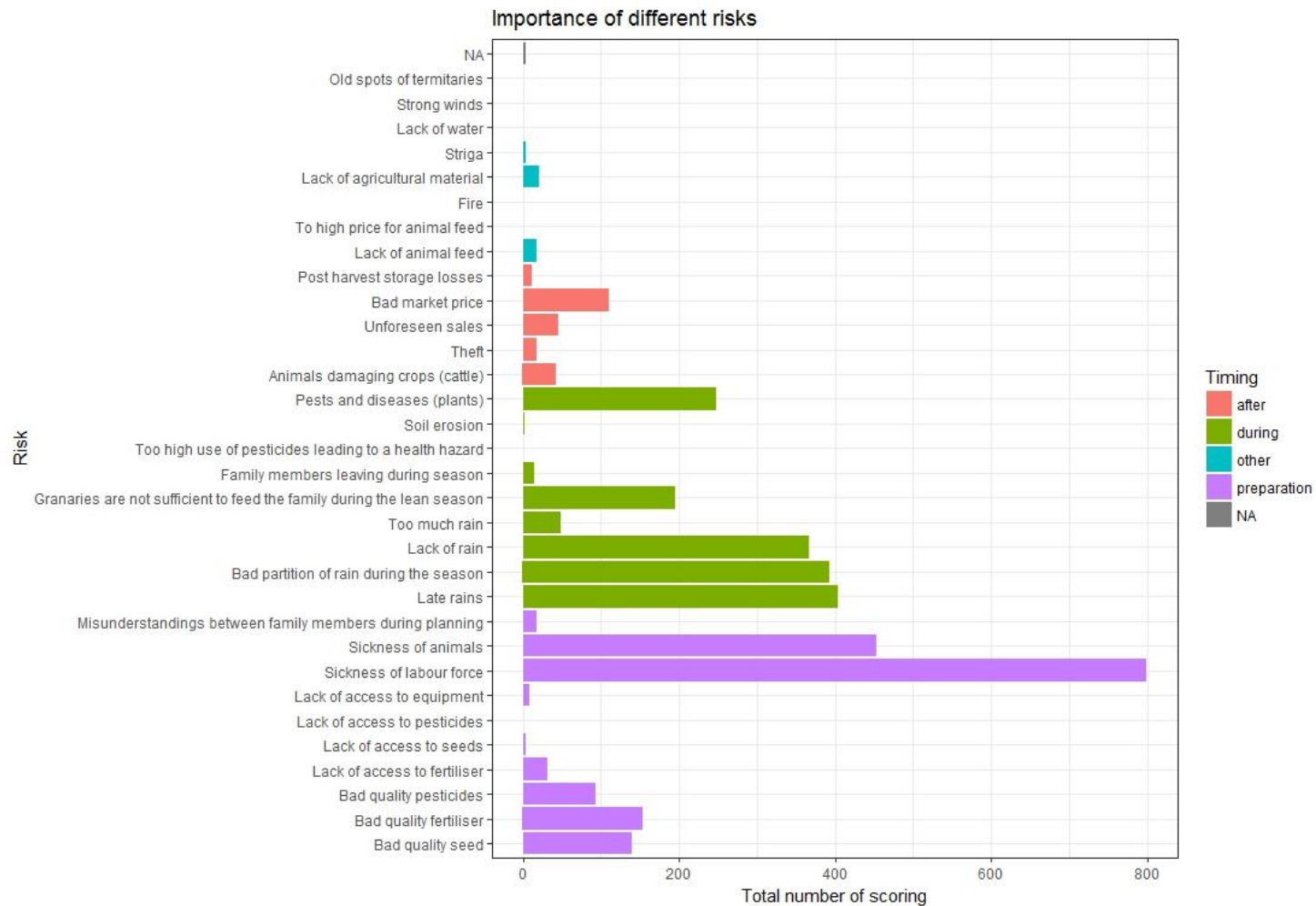
Milestone 3: Risk perception and management

- Risks are important in farmers' decision process
- What are the agricultural risks that farmers perceive as high?
- How do farmers prepare and react to them?
- Method: focus group discussions and surveys (250 persons of 58 farms)
- Status: preparation manuscript ongoing



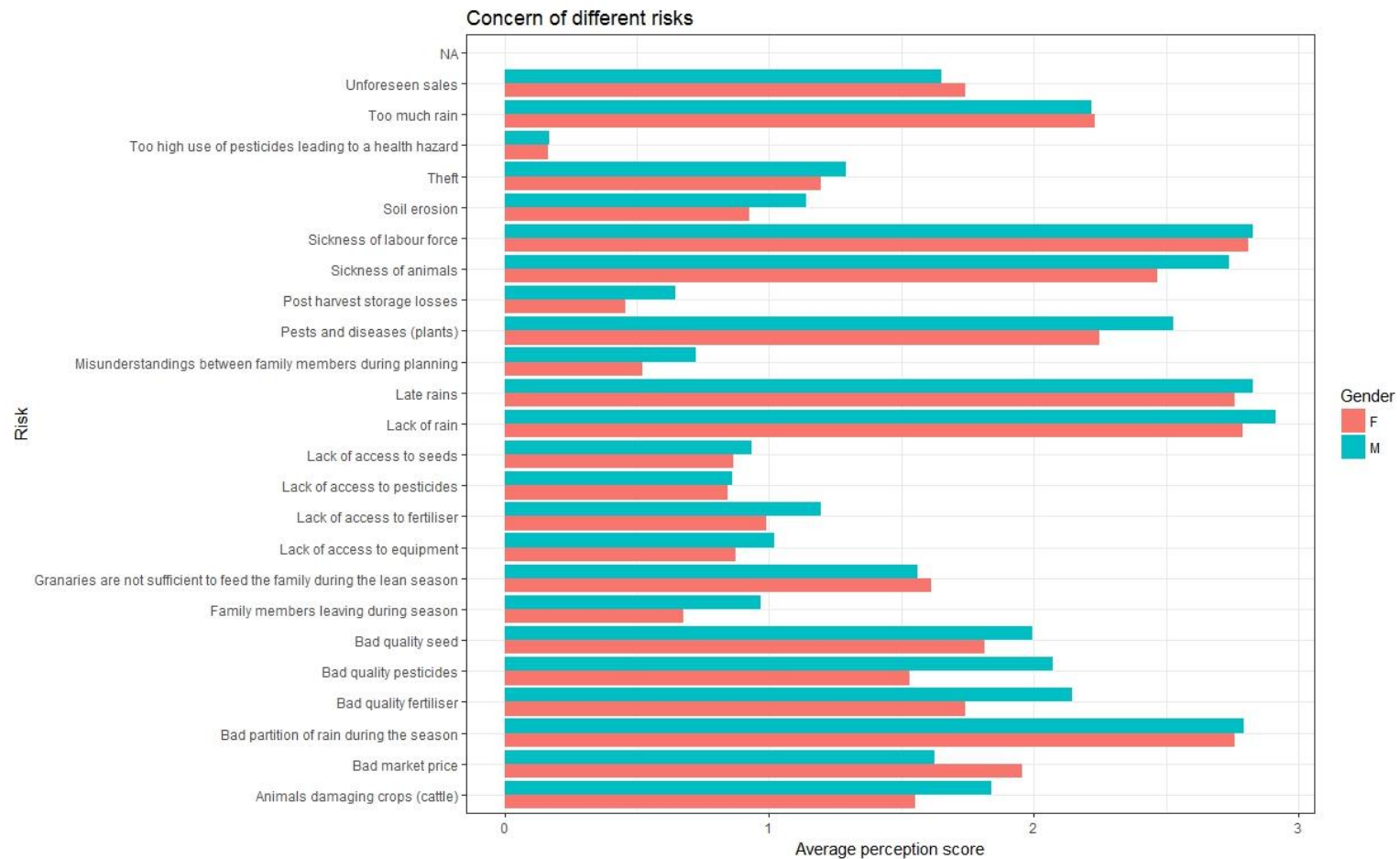


Milestone 3 / Resultat saillant / Perception de risques





Milestone 3 / Resultat saillant / Perception de risques





Thank You

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