



SUSTAINABLE INTENSIFICATION OF AGRO-PASTORAL PRODUCTION AND HOUSEHOLD FOOD STATUS IN THE SAHELIAN REGION (BURKINA FASO)



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Introduction

In West Africa, sustainable intensification of agro-pastoral systems is essential for increasing production in the long term and also to improve the livelihoods and food security of the population (Pretty et al., 2011). The design of a more productive and sustainable agriculture is a challenge to be overcome in order to ensure the food security and sustainable use of ecosystems (Petit, 2011). This study carried out in the Seno and Yatenga provinces aims to analyze the impact of the use of agro-pastoral production intensification techniques on the food status of households.

Methodology

The methodology is based on a primary data collection on agricultural production intensification practices and food consumption of 200 rural households in Seno and Yatenga provinces.

- A survey of agricultural practices
- 24 hours food consumption recall prior to the survey
- A multinomial model using SPSS 20 software.

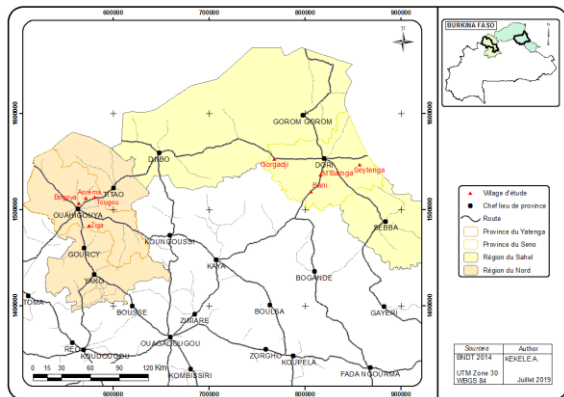


Fig.1: Study areas

Results

- More than 70% of the households surveyed use at least one animal or crop production intensification technique.
- The level of intensification of household agro-pastoral activities is low overall.

Tab.1: Proportion of households according to intensification level

Intensification level	Yatenga	Seno
Level 0	21,2%	40,4%
Level 1	37,4%	26,3%
Level 2	39,4%	27,3%
Level 3	2,0%	6,1%

- Household dietary diversity score (HDDS) remained acceptable during the season (between August 2017 and May 2018).
- 6 food groups on average consumed per day out of the 12 groups concerned
- Cereals and vegetables are the most consumed food groups
- Fruits, milk and eggs are the least consumed
- Meat and offal are more consumed by Seno households (pastoralists)
- Fish is more present in the diet of Yatenga households (farmers)

Multinomial regression showed that :

- the rearing of improved livestock breeds
- the practice of water and soil conservation techniques,
- fattening, and the planting of improved varieties are significantly associated with household dietary diversity during the season considered.

The probabilities p vary between 0.001 and 0.05. These results can probably be explained by the fact that the sale of products provides income that increases household purchasing power.

Conclusion

Capacity building of producers on production intensification techniques is one of the preferred ways of practicing these techniques in order to improve the food status of households.

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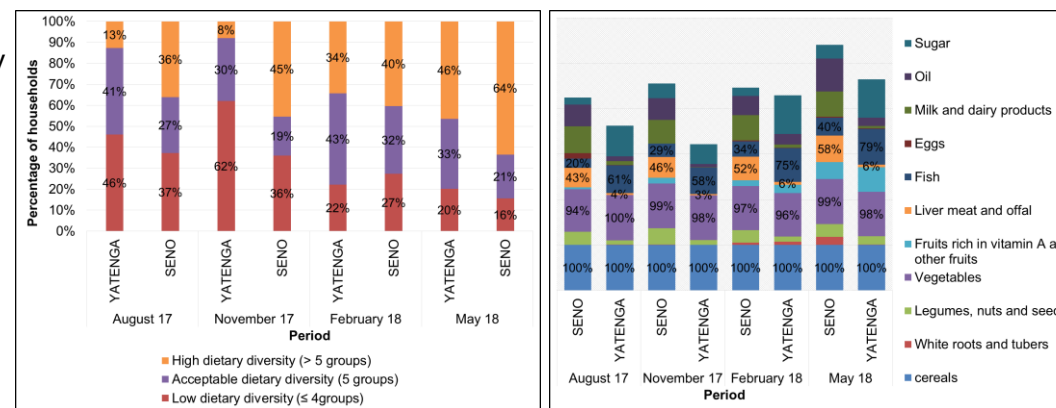


Fig.2: Proportion of households according to food status

Fig.3: Proportion of households by food groups consumed