



Introduction

The literature about sustainable development emphasizes cooperation and participatory approaches as a major, if not a necessary, prerequisite for sustainable development. Therefore, if cooperation is necessary for sustainable development, it is not so much the assessment of the complexity of a value chain in itself which matters most, but the quality of the interactions between its stakeholders. Consequently, the quantitative and technical aspects of value chains should be analyzed through their contribution to the quality of the interactions between their stakeholders. Cognitive dissonance is one of the means to analyze the quality of interactions. We applied it to the domestic vegetable value chain in Martinique, a small island in the French West Indies.

Mat & Methods

Cognitive dissonance can be defined as the state of having inconsistent thoughts, beliefs, or attitudes, especially as relating to behavioral decisions and attitude change. Recognizing the importance of cognitive dissonance is one of the major components for the success of cooperation in behavioral and cognitive sciences (Fontaine and Fontaine, 2011). Cognitive dissonance also occupies a central role in the decision process for the adoption of innovation in the fields of rural sociology and the standard theory of the diffusion of innovations (Everett Rogers, 2003).

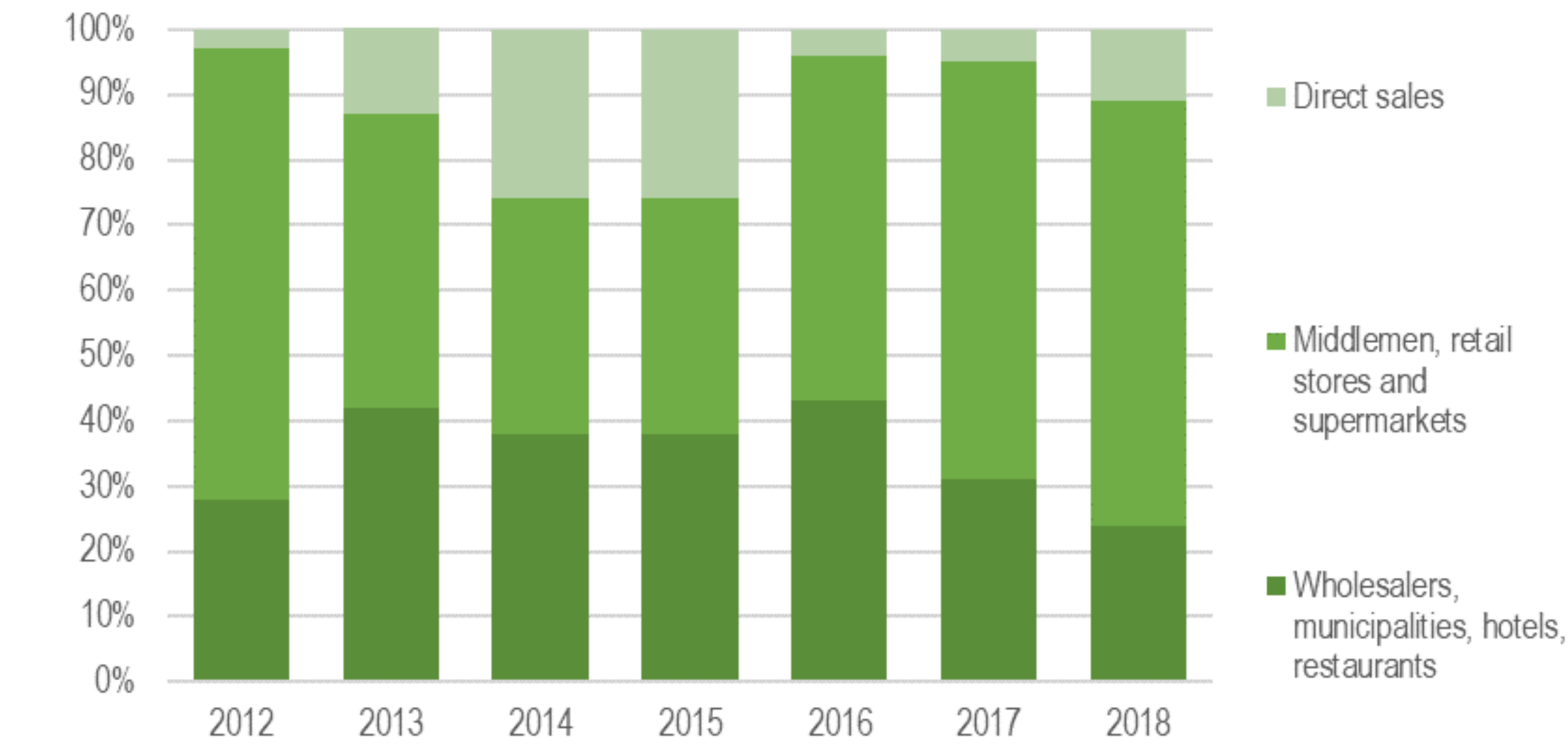
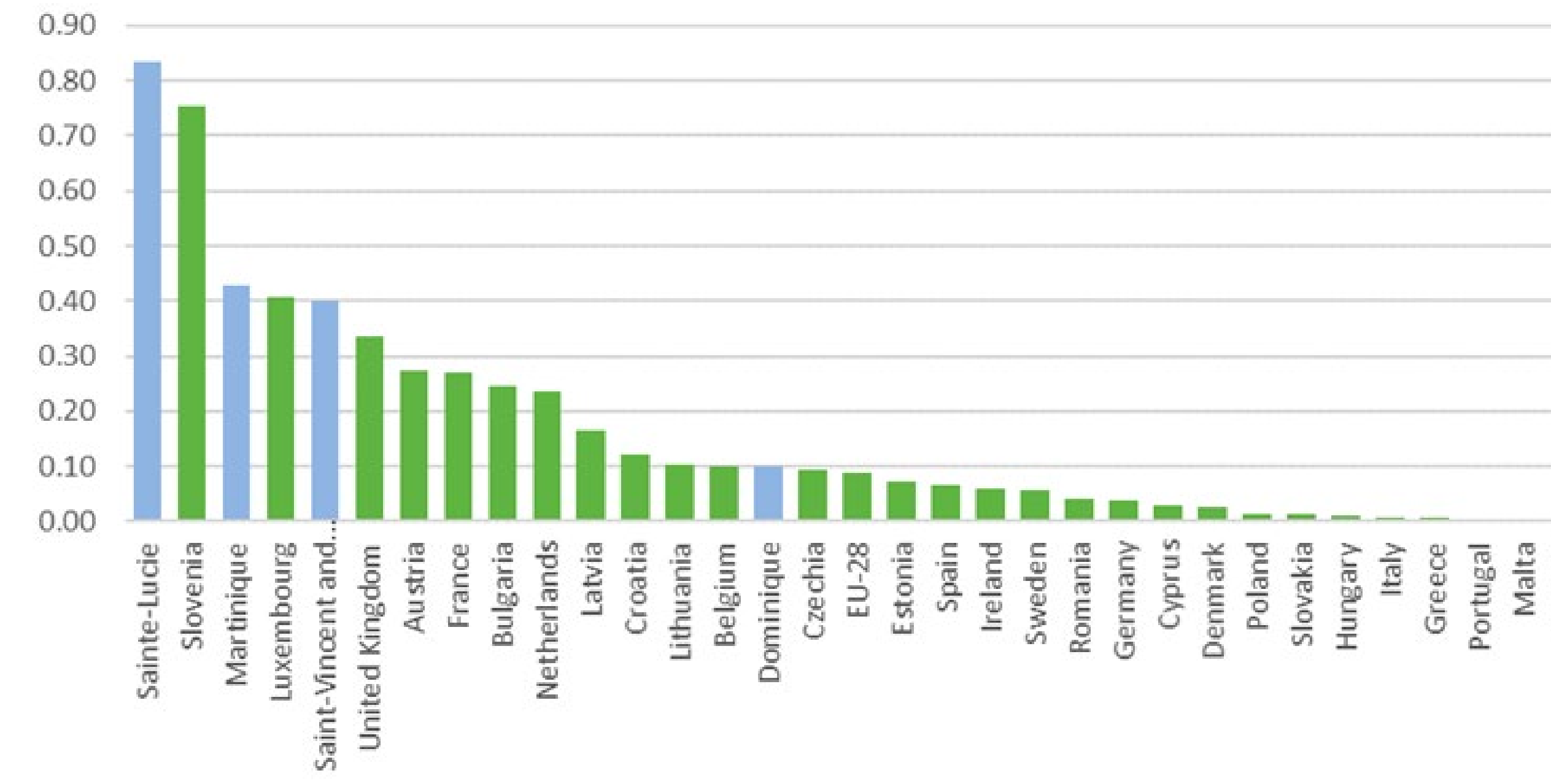


Fig. 1 The vegetable dependency ratio of Martinique compared to the other European Countries (in green) and several West Indies islands (in blue). Source: Eurostat (2020), FAOSTAT (2020), online statistics and (AGRESTE, 2015).

Fig. 2 Marketing channels of local fresh vegetable production (excluding tubers, excluding farmer organizations). Source: AGRESTE reports since 2012.

Results 2 Market dissonances

Our interviews highlighted specific dissonance among the actors in the vegetable sector, which stems from two main causes: 1) a disorganization of the vegetable supply side, which is disunited and fragmented into direct selling and supermarkets, and 2) a corresponding divergence of economic interests and business models between local markets and supermarkets (Varenne and Parrot, 2019). For example, the supermarkets are in dissonance with the small local suppliers, in the sense that they are based on economic models at different stages of development, with different and divergent interests and practices.

Results 1 Agricultural transformation

In 2014, the agricultural sector of Martinique represents 3.5% of the total added value and 3.9% of the employment (INSEE, 2020). In France, the figures are 1.9% of the total added value 2.5% for employment (INSEE, 2020). About 90% of the total calories intake in Martinique are imported (Colombet et al., 2020).

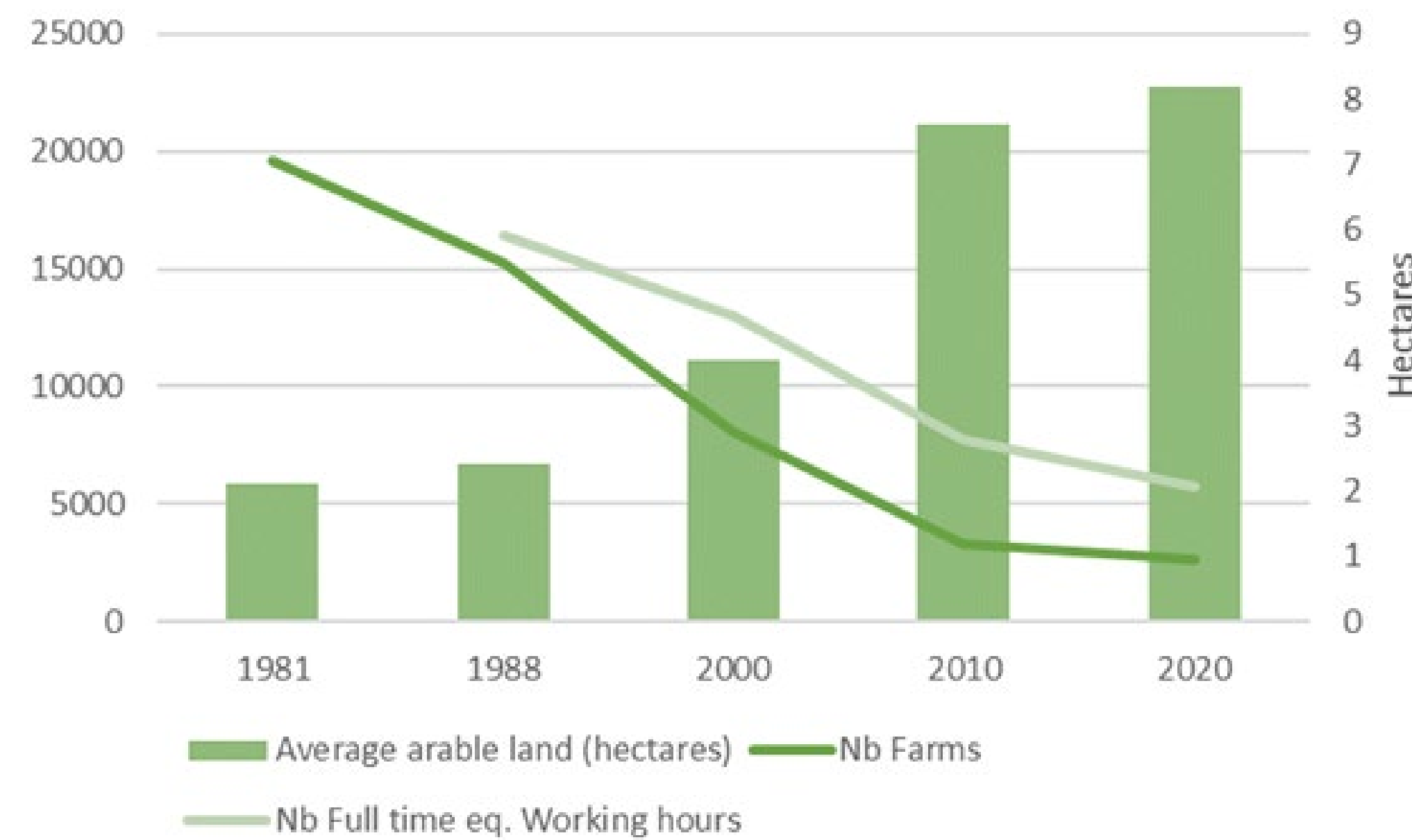


Fig. 3 The decline and structural transformation of the agricultural sector in Martinique (AGRESTE, 2021).

Tab. 1 Level, nature and examples of cognitive dissonance in Martinique.

Level	Nature	Examples of cognitive dissonance
Conflicting self-interests	Disequilibrium	Supply and demand disequilibrium: imbalance dissonance
	Consumer dissonance	Obesity prevalence and surveys expressing interest for vegetables diets
	Altruism vs egoism	Community labor / equipment vs individualism (profit maximization)
Conflicting business models	Cash-flows	Payment delays: time dissonance
	Fair price	High farm gate price and affordable consumer prices: distribution dissonance
Conflicting public policies	Land access	Vegetable farms on slopes, large farms on flat lands: property rights and mechanized dissonance
	Trade	Imports vs local production
	Public aid targeting	Transaction costs when accessing to public aid: resources dissonance
	Social and political dissonance	Public policies promoting Vegetable farming but low paid jobs: income dissonance

Table 1 suggests inconsistent thoughts, beliefs, or attitudes, relating to behavioral decisions and attitude change. As such, they are cognitive dissonances. They are the result of conflicting self-interests (CSI), conflicting business models (CBS), and conflicting public policies (CPP): individualistic behaviors vs collective action, market driven business models versus rent-seeking models, and European public policies not always adapted to small island economies and small farms' constraints. Cognitive dissonance departs from current research in behavioral economics and nudge economics because it recognizes the person as an agent of change and not just a passive recipient of stimuli.

Conclusion

Recognizing the importance of cognitive dissonance is a first step for effective alliances.