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► **To cite this version:**

Pascale Scheromm, Coline Perrin, Françoise Jarrige, Lucette Laurens, Brigitte Nougaredes, et al.. From ignorance to commitment: how periurban municipalities deal with agriculture?. *Geographical Research*, 2019, 57 (4), pp.425-435. 10.1111/1745-5871.12378 . hal-02626864

**HAL Id: hal-02626864**

**<https://hal.inrae.fr/hal-02626864v1>**

Submitted on 28 Sep 2023

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**How to cite this paper:** Scheromm P., Perrin C., Jarrige F., Laurens L., Nougaredes B., Ruault C. (2019). From ignorance to commitment: how periurban municipalities deal with agriculture? *Geographical Research*, 57 (4), 425-435, <https://dx.doi.org/10.1111/1745-5871.12378>, <https://hal.inrae.fr/hal-02626864>

## **From neglect to commitment: how do French periurban municipalities deal with agriculture?**

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### **Highlights**

Agriculture is given consideration in most periurban municipal policies. Municipal agricultural projects depend on the political will of the elected representatives. The location of municipalities does not impact upon how agriculture is integrated in municipal policies. Urban planning documents provide a sound proxy to identify interesting municipal agricultural policies.

### **Abstract**

Urban growth leads to the decrease in area of farmland. In France, considerable attention is paid to this problem, including in frequent public policy debates. In this paper, we explore issues associated with agriculture in 24 French periurban municipalities. We compared the treatment of agriculture in municipal policies by analysing urban planning documents and conducting in-depth interviews with elected representatives. Our study reveals a high level of congruence between these two sources of information, confirming that planning documents are a sound proxy to identify municipalities' agricultural strategies. The study also shows both diverse degrees of municipal commitment to agriculture, that range from ignoring it to strongly supporting it, and diverse issues about agriculture that depend on local context and concerns.

**Keywords** municipal policies; farmland; urban planning; agriculture; elected representatives; France

## Introduction

Urban growth leads to farmland conversion (Bryant & Johnston, 1992), a trend observed worldwide (Bren d'Amour *et al.*, 2017): for instance in Europe (EEA, 2006), the United States (Alig *et al.*, 2004; Bengston *et al.*, 2004), Australia (Houston, 2005), or China (Lichtenberg & Ding, 2008). It has a particularly negative impact on periurban areas, heightened by land speculation (Lopez *et al.*, 1988), farmers' disengagement (Inwood & Sharp, 2012) and the problems encountered in establishing a farm (Germain & Thareau, 2011; Horst & Gwin, 2018).

Urban growth has profoundly changed the relationship between city and countryside. In the case of France, Vanier (2005) distinguishes three periods between the 1950s and the present. From 1950 to the 1970s, the countryside was primarily conceived as a productive area providing cities with food products and labour. This viewpoint legitimised urban growth: it justified the creation of new towns, as well as land expropriation and the relocation of farms farther from urban areas. From the 1970s, a new consumption relationship emerged between city and countryside: the countryside gradually became less valued for its productive function and more for its residential function. The periurban trend put agricultural spaces under pressure. The third period, beginning in the 1990s, is that of the transaction. The processes known as metropolization that exist when cities cannot expand beyond their limits, and demands for space inside them grow, tend to make the boundaries between the urban and the rural more porous. These dynamics, observed in France, operate in other countries too: Westlund (2018) hence postulates a dissolution of the urban-rural dichotomy in the post-urban world. Metropolization has transformed relationships among the city, agriculture, food, and rural life. As cities continue to expand, agriculture and food are becoming urban issues. In the new context of vast city-regions, agricultural areas are valued as components of the sustainability of urban systems and, as such, are progressively integrated into urban planning and policies. Over the past two decades, against a background of food crises and the sustainability paradigm, food and agriculture have emerged as strategic issues for local development (Morgan, 2009).

To examine this matter further, we looked at urban development actions involving agriculture at the local level. The case of France is illustrative because at the local level, public policies encourage actors to combine urban, environmental, and agricultural development, and to take a sustainable development perspective. After gradual decentralisation in the 1970s (Pinson & Le Galès, 2005), urban planning powers were

transferred to municipalities in 1983. The municipality thus became the main public local planning authority under a unified national law. But this municipal level of planning failed to curb the urban sprawl. Local authorities found themselves subject to pressure from landowners and developers speculating on the conversion of farmland (Castel, 2007; Renard, 2008). Local zoning plans were subject to variance, re-zoning, special exceptions, and conditional uses (Martin *et al.*, 2006; Peltier 2010; Perrin, 2013a). Aware of this trend, the State passed a law in 1999 intended to encourage municipalities to federate into public intermunicipal bodies to jointly manage services such as transport or urban planning. A new planning law (SRU law on solidarity and urban renewal, 2000) stipulated that the municipal urban development zoning plans called PLU (*Plans Locaux d'Urbanisme*) had to reduce farmland consumption and increase urban density. To frame these PLU, the SRU law required the elaboration of intermunicipal masterplans called SCoT (*Schémas de Cohérence Territoriale*). However, although these intermunicipal masterplans have sometimes enhanced the integration of agriculture in urban planning (Jarrige *et al.*, 2006), the urban fringe continues to encroach on farmland. Urban stakeholders often instrumentalise agricultural land protection to achieve other urban goals (Barthès & Bertrand, 2016; Loudiyi, 2008; Perrin *et al.*, 2018; Poulot, 2014a). In the 2010s, agriculture and food issues began to appear on local political agendas. Although such issues had long been considered as outside their fields of competence, local authorities gradually began to engage in food and agricultural strategies (Billion, 2017; Bricas *et al.*, 2017; Lardon & Loudiyi, 2014). Some periurban municipal governments built strategies to protect farmland (Perrin, 2013b, 2013c), and some even developed innovative local agriculture and/or food policies (Margetic & Chaucesse, 2012; Perrin *et al.*, 2016; Poulot, 2014b). Others, however, did not follow this new policy direction.

Our paper explores why, how, and to what extent periurban municipalities integrate agricultural issues into their policies. Municipalities are public authorities key to preserving agriculture on the urban fringe: they determine land use and housing policies at the local level (Jarrige *et al.*, 2018). Why do some municipalities support agriculture while others do not? Do specific factors make it possible to predict how agriculture will be integrated into periurban municipal policies, among them the municipality's distance from the core city, its rural or urban identity, or the intermunicipal agricultural and food policy?

To assess the weight given to agriculture in municipal policies, we compared 24 periurban municipalities from the same city-region of Montpellier (France), whose rapid population growth since 1960 has been fuelled by positive net migration. We analysed municipal urban planning documents and conducted in-depth interviews with local elected

representatives. Our study reveals a high level of congruence between these two sources of information. It shows diverse degrees of municipal commitment to agriculture that range from neglecting it to strongly supporting it, and the existence of diverse issues that are associated with agriculture and depend on local context and concerns. These results are discussed in relation to each municipality's geographical location (distance to the city), identity (urban, rural, periurban), and intermunicipal planning context.

### **Study area and method**

Our study examines 24 municipalities belonging to the city-region of Montpellier, situated on the French Mediterranean Coast. We chose these municipalities because of their diverse geographical locations, identities and intermunicipal planning contexts. The city-region of Montpellier has a population of 460,000, which has tripled since 1960. While Montpellier, the seventh largest French city, has 260,000 inhabitants, secondary historic towns continue to play a structuring role, and small periurban localities have boomed in the last four decades. Individual housing tracts spreading out from the cores of suburban villages have replaced the former vineyards (Jarrige *et al.*, 2013).

Studied municipalities have different degrees of urbanisation and populations ranging from 427 to 25,178 inhabitants. Some are situated within the first periurban belt of Montpellier city, while others are more distant (figure 1). All the municipalities increased their populations between 1999 and 2014 (figure 2). The most distant municipalities, those situated more than 15 kilometres from Montpellier are, rather, the least populated, except for Castries, Clermont l'Hérault, Gignac, Lunel, and Saint André-de-Sangonis, which are small secondary towns.

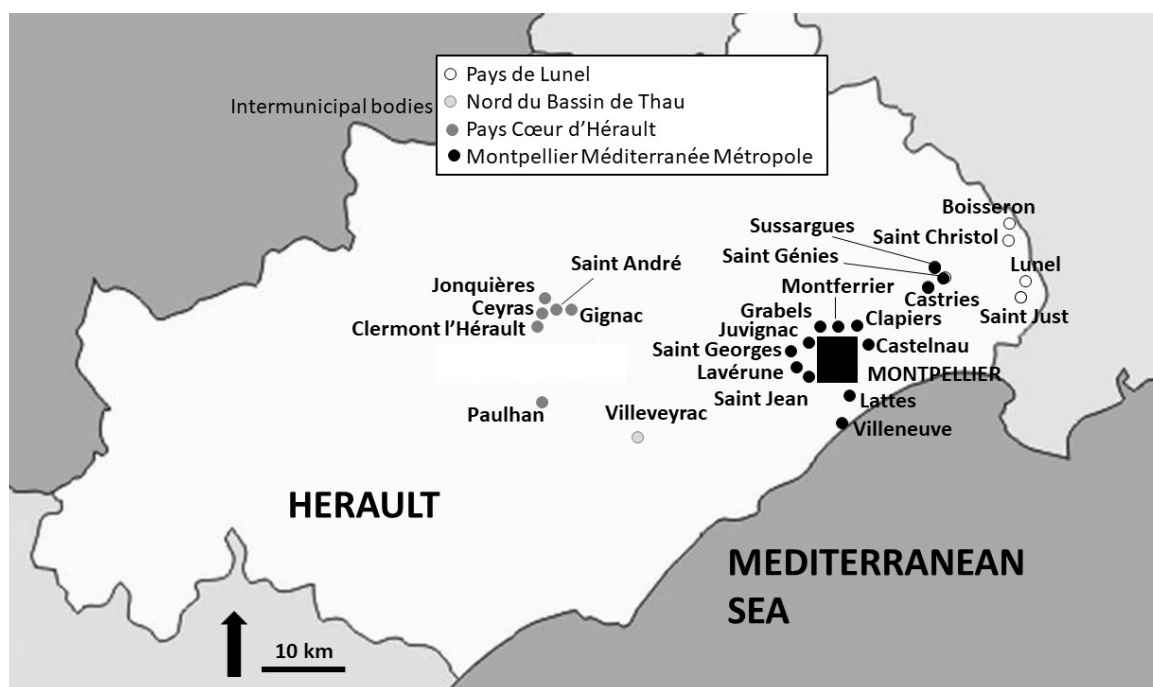


Figure 1. Location of the studied municipalities



Figure 2. Number of inhabitants and distance from Montpellier of the studied municipalities

Agriculture still exists in almost all the municipalities comprising our sample, but it has long been declining. Many municipalities, even those furthest from Montpellier, faced a real collapse in farming between 1988 and 2010, among them Paulhan (from 230 to 56 farms), Saint André-de-Sangonis (from 242 to 82 farms) or Villeveyrac (from 295 to 112 farms). In municipalities close to Montpellier, there are now very few farms: for example, Juvignac and Clapiers contained only seven farms in 2010, and Grabels none.<sup>1</sup>

The municipalities belong to different intermunicipal bodies (cf. Table 1). Municipalities bordering Montpellier belong to Montpellier Méditerranée Métropole, where agriculture occupies only limited and fragmented spaces, although some farms have held out or adapted (mainly viticulture). More distant municipalities situated to the east of Montpellier belong to the intermunicipal body Pays de Lunel, which still contains large agricultural spaces exploited for various farming purposes (vineyards, annual crops, extensive breeding, fruits, and vegetables). The periurban municipalities to the west of Montpellier belong to the intermunicipal body Pays Cœur d'Hérault, where there are still large agricultural spaces, mainly devoted to viticulture. Lastly, Villeveyrac belongs to the intermunicipal body Nord du Bassin de Thau, where agriculture is diversified with vineyards, extensive breeding, fruits, and vegetables. To analyse how agriculture fares in municipal policies, we examined municipal urban planning documents and conducted in-depth interviews with local elected representatives.

The PLU enables the process of urbanisation. It consists of a set of documents related to strategic orientation, zoning, and regulations. We focused on the Sustainable Planning and Development Project (Projet d'Aménagement et de Développement Durable, PADD), which presents a general orientation structured in several thematic sections presenting the major objectives of the municipal policy. It is considered a reference document for local political priorities at the time of its approval. We searched for the word roots “agr”, “rur”, “viti” in the text of each municipality’s PADD as indicating words related to agriculture in French (“agriculture”, “agricole”, “rural”, “viticulture”, “viticole”). This system enabled us to highlight excerpts from documents to be analysed in more detail, thereby shedding light on issues related to agriculture and constructing a typology of municipalities with respect to agriculture. For each PADD, we classified excerpts according to four criteria: (i) main objectives of the PADD, if the excerpt corresponded to titles of sections or subsections of the

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<sup>1</sup> recensement général agricole, <https://www.rga.com/>

document, (ii) issues related to agriculture and farmland, (iii) actions concerning agriculture, (iv) municipal identity: rural, periurban, or urban. This text analysis was to identify the presence or absence and the extent and diversity of agricultural issues in the PADD.

In-depth interviews on the weight given to agriculture in current and past municipal policy were conducted with the elected representatives of the municipalities: the mayor in the smaller municipalities, and the elected representatives in charge of agriculture or, failing that, of the environment or of urban planning in the more urbanised municipalities. The elected representative were informed that the collected data would be used for academic scientific studies. The interviews were recorded and transcribed, and then analysed from three angles:

1. the attention paid to agriculture by the elected representatives: how is agriculture described, perceived, understood? What are the agricultural issues mentioned?
2. the actions or projects undertaken: what role do the elected representatives play in supporting agriculture and what is their degree of commitment?
3. the future of agriculture: how do the elected representatives see the future of local agriculture?

The data from the PADD analyses and in-depth interviews were then compared to check for congruence and to classify the municipalities in distinct categories reflecting the place that agriculture occupies in municipal policy.

## Results

### *Differing degrees of attention to agriculture in the PADD*

Based on the text analysis of the issues identified in the PADD, we classified the 24 municipalities into four categories (cf. Table 1).

Table 1. Classification and characteristics of the municipalities by category

Category	Municipalities	km from Montpellier	Intermunicipal body
1	Juvignac Ceyras	9 34	Montpellier Méditerranée Métropole Pays Cœur d'Hérault
2	Castelnau St Jean de Vedas Lattes Castries St André de Sangonis Clermont l'Hérault	3 5 7 12 30 36	Montpellier Méditerranée Métropole Montpellier Méditerranée Métropole Montpellier Méditerranée Métropole Montpellier Méditerranée Métropole Pays Cœur d'Hérault Pays Cœur d'Hérault
3	Montferrier St Georges d'Orques Villeneuve Sussargues St Genies des Mourgues	7 7 9 15 16	Montpellier Méditerranée Métropole Montpellier Méditerranée Métropole Montpellier Méditerranée Métropole Montpellier Méditerranée Métropole Montpellier Méditerranée Métropole



	St Just	20	Pays de Lunel
	Lunel	22	Pays de Lunel
	Boisseron	24	Pays de Lunel
	Gignac	26	Pays Cœur d'Hérault
	Jonquières	33	Pays Cœur d'Hérault
	Paulhan	35	Pays Cœur d'Hérault
4	Clapiers	6	Montpellier Méditerranée Métropole
	Lavérune	6	Montpellier Méditerranée Métropole
	Grabels	8	Montpellier Méditerranée Métropole
	St Christol	22	Pays de Lunel
	Villeveyrac	25	Nord du Bassin de Thau

### ***Category 1. Agriculture not considered in the municipal policy***

This category includes two municipalities, Juvignac and Ceyras, whose PADD makes no mention of any issue associated with agriculture. These two municipalities have strategies oriented solely toward the provision of urban services and housing. The municipality of Juvignac, bordering Montpellier, bases its municipal policy on a long-standing residential strategy. Its main concerns are increasing housing stock, transport, leisure activities (golf), and the development of shopping malls. Ceyras, a small municipality situated 35 kilometres from Montpellier, on the outer edge of the urban region, is booming and faces a demand for social housing for impoverished populations arriving from the urban centres. Agriculture is only mentioned in the PADD in connection with the protection of water catchment areas, because of its negative impact on water quality.

### ***Category 2. Agriculture as a landscape component of the municipal policy***

This category includes 6 municipalities. Three of them are on the outskirts of Montpellier. The three others are more distant, small secondary towns. These municipalities have a tertiary economy and agriculture is mainly recognised for its contribution to the quality of the local urban environment. In these predominantly urban municipalities, the main role assigned to agriculture under the PADD is to provide landscapes and natural spaces, a “breathing space” within the urban environment. Although historically a productive activity, agriculture has thus been turned into a tertiary and service activity.

### ***Category 3. Agriculture as a multifunctional component of the municipal policy***

This category includes 11 municipalities: three located on the outskirts of Montpellier and the others more distant. In these municipalities, all with a wine-producing past, agriculture is still very much a part of the picture, recognised and protected. It is, above all, associated with identity issues, as well as with landscape and economic issues. The PADD excerpt from

Gignac is an example of the intertwined functions associated with agriculture in this category. “The quality of life in Gignac is largely due to the wine production carried out over a major part of the municipal territory, shaping it into a beautifully cultivated piece of landscape” (PADD 2012, p5). In addition to the landscape function, the economic, identity and social functions of agriculture are also clearly identified: “Agriculture’s landscape value should not obscure its economic and social value ... The work of our ancestors must be respected by keeping these lands in agricultural use. The zoning plan will rely on this principle to establish clear urban limits” (PADD 2012, p5). However, the PADD does not mention any concrete action in favour of agriculture. Apart from the secondary historic towns of Lunel and Gignac, all municipalities in this category, even those close to Montpellier, display a rural or periurban identity through their PADD, which distinguishes them from the more urban profiles of category 2. Agriculture is associated with social, economic, and quality-of-life issues.

#### ***Category 4. Agriculture as a strategic component of the municipal policy***

This last category includes five municipalities. Three of them are on the outskirts of Montpellier and two more distant. Supporting agriculture appears to be a central concern in these municipalities. Agriculture is mentioned in the titles of PADD sections, even in the PADD title itself: for example, in Saint Christol, the PADD is entitled “A wine growers’ village to be preserved” (PADD 2013, p1). In Lavérune, one PADD section is called “Responding to the challenges of periurban agriculture via a genuine agricultural project” (PADD 2009, p5). The municipalities belonging to this category mention in their PADD agricultural initiatives. In Grabels, bordering Montpellier, the actions mentioned aim to preserve farmland by designating a ‘long-term protected zone giving the farmers long-term land security’ (PADD 2012, p5). The PADD also mentions the recent creation of farmers’ markets. In Villeveyrac, a rural village farther away from Montpellier, the municipality wants to help farmers who need farm buildings by offering them specific dedicated land: “The municipality will offer viable land plots at an intermediate price, with sufficient surface area for the buildings and equipment necessary for the farm” (PADD 2011, p12)

In three of these municipalities, the agricultural projects are aligned with intermunicipal policy. In Clapiers, the preservation of currently or formerly cultivated lands must ‘allow for the implementation of an ambitious project led by the Metropole de Montpellier which seeks to reconcile agricultural functions (local quality products to supply short food supply chains), environmental functions (areas with strong heritage and landscape value, contributing to the

preservation of biodiversity and ecological continuity) and social functions (spaces for walks and leisure activities, with recreational and educational functions)’ (PADD 2013, p7).

In Lavérune, the municipal project ‘has to be compatible with the objectives of the SCoT’ to develop an ‘integrated plan for the management of agricultural periurban spaces’ (PADD 2009, p5, p11). In the Saint Christol PADD, the challenge is ‘to favour short food supply chains, in accordance with the SCoT’s objectives’ (PADD 2015, p4).

Municipalities in category 4 are thus characterised by PADDs in which agriculture appears as a strategic component of municipal policy, with concrete objectives and a set of actions, in line with intermunicipal policies. They often display a rural identity, even if they are close to Montpellier. The municipal agricultural policy tackles different issues, depending on each local context. In the municipalities bordering Montpellier, where agriculture and farmers have almost disappeared, land-use management strategies aim to preserve farmland and help new farmers get settled. In more distant areas, where agriculture is still alive and active, the actions mentioned in the PADD aim more at supporting, promoting, and diversifying agricultural activities.

To sum up, our analysis reveals great diversity in the treatment of agricultural issues at municipal scale. Agricultural issues are ignored or secondary in municipalities in categories 1 and 2. They are taken into greater account in the two other categories, being translated into action plans only by the category 4 municipalities. In these municipalities, municipal agricultural initiatives sometimes resonate with intermunicipal agricultural policies.

### ***Elected representatives and agriculture: from no interest to strong political commitment***

Interviews conducted with elected representatives confirm the results of our analysis of the PADDs, shedding light on how agriculture is integrated into municipal policy. Substantial congruence can be established between the PADD issues and those expressed by the elected representatives.

In municipalities in categories 1 and 2, where agriculture is not taken into account or is a landscape component in the PADD, elected representatives do not see agriculture as a priority. In these two categories, elected representatives know the farming communities. While farmland may occupy a significant part of the municipal territory, agricultural issues are considered less important than urban or environmental issues.

Our work as elected representatives mainly concerns the environment. There is no one responsible for agricultural issues in the municipality. Because of our local history of flooding, we work on water treatment plans, the highway, and the dikes. These are our

priorities, not agriculture. All the farmers are coming up for retirement and they have no one to take over their farms. (Lattes elected representative)

In category 3 municipalities, where agriculture is treated as a multifunctional component in the PADD, elected representatives recognise the importance of agriculture but have no agricultural strategy. They have sound knowledge of local farmers and agriculture. Some are pessimistic about the future. They refer to the decreasing number of farms, the disappearance of wine-making cooperatives, land fragmentation, farmland abandonment, and the competition over land uses that hinders the creation of new farms. In more distant municipalities retaining extensive agricultural land, housing provision is sometimes an issue more important than agriculture.

Of course, agriculture contributes to the local quality of life, but we also need to meet the housing and public infrastructure needs of the newcomers. (Paulhan elective representative)

Some elective representatives think, however, that agriculture still has a role to play in periurban areas and that municipalities should support it. In this category, agriculture often means viticulture. The elected representatives underline its importance in the local economy, as well as in local quality of life, in landscape conservation, local identity, and the promotion of green tourism. However, they view agriculture as the farmers' personal business. They rely on farmers and farmers' organisations to initiate actions supporting agriculture. Municipal action is generally limited to public events or communication, especially in relation to wines.

We don't perform well on communication, which is first and foremost the producers' fault, because they compete among themselves. We try to help them but it's difficult.

We handle the marketing of some events. The municipality provides its financial support and some technical support. (Saint Georges d'Orques elected representative)

In contrast, in category 4 municipalities where agriculture is a strategic component in the PADD, elected representatives share a dynamic and assertive vision of local agriculture. Strategies revealed by the PADD analysis were confirmed and elaborated on in interviews. Elected representatives give agriculture a principal place in their policies. They sometimes consider that the farmers are not yet taking these issues seriously, and that their responsibilities as elected representatives are to revitalise agriculture.

We want to respond to the challenges of periurban agriculture through a real agricultural plan, through appropriate actions such as the redevelopment of brownfields with diversification of crops, especially olive groves, and market gardening. (Lavérune, elected representative)

Elected representatives from category 4 municipalities are strongly committed to agriculture. In municipalities bordering Montpellier, such as Grabels and Lavérune, where agriculture is marginal, the mayors' chief objectives are to protect farmland from urbanisation and to boost new agricultural activities. To do so, the municipal governments buy farmland or forbid any new construction in areas zoned agricultural use in the PLUs. Their ambition is to settle new farmers on these areas to supply farmers' markets and school canteens. In Clapiers, we identified a recent policy shift: the elected representatives' position on agriculture changed after the municipality was included in the perimeter of an agricultural park created by the intermunicipal body. The elected representatives now address not only landscape issues related to agriculture, but also issues related to the renewal and development of agriculture on fallow lands, to local food provisioning, and to forest fire prevention.

The municipalities intervene differently in more distant periurban municipalities where agriculture is still thriving. In Villeveyrac, historically a wine-producing municipality, the mayor supported the development of new types of farming (market gardening, extensive livestock) and short food supply chains (CSA, farmers' market) using a Local Agenda 21 plan. In Saint Christol, the municipality and the intermunicipal body have recently built a centre for oenotourism, open to the public and dedicated to introducing and promoting wines and local agricultural traditions. In category 4 municipalities, local agricultural policy resonates with the intermunicipal policy and elected representatives rely on the two administrative levels to consolidate and finance their municipal projects.

In summary, analysis of the interviews confirms the 4 categories emerging from the PADDs and reveals the differences in elected representatives' positions on agriculture. However, no relationship was found between municipalities' location and the weight given to agriculture in municipal policies (Table 1). There are municipalities both close to and far from Montpellier in all the categories. Some of the municipal governments closest to Montpellier—very urbanized municipalities with few farmers—adopt actions and strategies aimed at agricultural renewal, while others do not. In the same way, distant, less urbanised municipalities where agriculture still thrives may or may not support it. Moreover, some more distant municipalities display an urban identity, while some municipalities close to the core city claim a rural identity. Nor did we find any relationship between belonging to a intermunicipal body and the weight given to agriculture in municipal policies (Table 1). Members of a given intermunicipal body do not share the same agricultural strategy and may even have quite different policies regarding agriculture.

## Discussion and conclusion

We distinguished four categories to consider agricultural issues in municipal policies from our analysis of PADDs, documents establishing policy orientation in the PLU. The distribution of our sample municipalities in these four categories was confirmed by interviews with their elected representatives.

Our results thus show that the PADD offers a sound first proxy to consider how agriculture is accounted for in municipal policy at its date of approval. Without extensive fieldwork and interviews, documentary analysis of the PADD makes it possible to quickly identify the weight given to agriculture compared with other municipal spheres of action such as housing, transportation, environmental protection, or social inclusion. The PADD also reveals local agricultural initiatives ongoing at the date of approval. Thus, it reliably reflects a municipality's position on agriculture, its challenges, and sometimes even its agricultural projects. The analysis of text excerpts selected by word search is a time-saving method to quickly identify which municipalities have a relevant agricultural policy worthy of more thorough analysis based on interviews. However, PADDs are dated documents revised only every 10 or 15 years, and therefore present neither projects planned after the date of a PLU's approval nor projects finished before. They mention only the projects currently underway or already in planning stage. For example, in our investigation, one municipality, St-Géniès-des-Mourgues, had a pioneering agricultural policy strategy to protect agricultural landscapes by imposing the grouping of farm buildings at the edge of the village (Nougarèdes, 2011). However, these plots were established between 1990 and 2006, before the approval date of the current PLU (2013) and are consequently not mentioned in the PADD. The view of agriculture and the municipal policy reflected by the PADD is hence limited to the date when the document was drawn up.

Our interviews with elected representatives complement this first analysis and prove useful because they shed light on the role of the municipality in agricultural projects. They are essential for at least two reasons. First, interviews give essential additional information about municipality-driven actions concerning agriculture, their history, and their success. Second, interviews clarify the agricultural and political context, highlighting the motivations and rationales behind a municipality's choosing whether to undertake a dynamic agricultural policy.

Beyond revealing agriculture's multifunctionality (Lovell, 2010; Renting *et al.*, 2009; Zasada, 2011), our study pinpoints the diversity of local agricultural issues depending on the municipality: landscape, environmental, economic, social, identity or food issues. It also

shows differences in political orientation (objectives expressed) and in strategies adopted (actions implemented). Some municipalities grant agriculture a principal place in the municipal policy, while others neglect it, concentrating on more urban-centred issues. Between these two extremes, the elected representatives position themselves on a priority gradient concerning agriculture. Moreover, in the municipalities that make agriculture a central issue, two different agricultural strategies are adopted. These seek either to preserve agriculture (for example, by supporting the historical wine “terroirs” through marketing campaigns), or to develop more innovative diversified agriculture (possibly as part of a territorial food relocalisation strategy, supporting short food supply chains, especially breeding, fruits, and vegetables). The choice between these two strategies reflects the difficulty and the complexity of the transition to farming systems that are better connected to urban demand (Kerselaers *et al.*, 2011), raising the question what land needs to be preserved for what agriculture?

The distance from Montpellier is not a factor in how we classified municipalities in distinct categories. This result runs counter to some assertions in the literature. Charmes (2009) and Simard (2007) considered that elected representatives of more urbanised municipalities are more likely to advocate for periurban agriculture preservation to prevent the extension of built-up areas. In contrast, elected representatives of more distant periurban municipalities were considered by Logan and Molotch (1987) as more likely to consider residential development as a driver for growth. Moreover, here municipalities close to the core city may claim a rural identity, although their demography and land-use are very urban: they are connected by a large transport network, including the tramway, and the large majority of their inhabitants work in Montpellier. Although the traditional urban-rural dichotomy is tending to disappear in the post-urban world (Westlund, 2018), some municipalities may display a rural identity to stand out in an urban region.

Nor is the intermunicipal body they belong to a factor in the municipalities’ classification in the distinct categories. The intermunicipal SCoTs may stipulate reducing farmland conversion, but local actions aimed at supporting agricultural development depend on the will of the municipal elective representatives. Some mayors, for example, actively participate in the drafting of an agriculture-friendly SCoT while imposing so many regulatory constraints in their municipal PLU that new farmers find it difficult to set up new farms (Vitry & Chia, 2017). The insights provided by this result are relevant to the current debate over the best level of political decision-making for more effective farmland preservation and agricultural development, in a context of decentralisation where local authorities have gained a lot of

room for manoeuvre. The trade-off between restrictive top-down guidelines and local autonomy is still open to debate in the literature. Some authors fear negative effects stemming from increased municipal autonomy (Koomen *et al.*, 2008) and believe that the solution lies in a supervisory authority (Kline *et al.*, 2014). However, Androkovich (2013) shows that a supervisory commission is also subject to pressure from development interests. Artmann (2014) points out for Bavaria that local autonomy and flexibility (even informal planning strategies) have sometimes led to more effective implementation of farmland preservation policies. Moreover, in France and Italy, the current shift from a top-down land-use management regime to a more decentralised and flexible one has produced multiple decision-making authorities and increased the complexity of procedures (Perrin *et al.*, 2018). Depending on the local context, local autonomy may thus attract either criticism or praise for its potential to generate experimentation and innovation in farmland preservation and agricultural development.

By way of conclusion, from a methodological point of view, our study shows that municipal urban planning documents provide a convenient first proxy for evaluating agriculture's weight, and its related issues, in municipal policies. From an analytical point of view, it shows that agriculture is currently a concern for most periurban municipalities, for reasons ranging from landscape, social, economic and quality-of-life to food issues. In our sample of 24, however, only five municipalities present strategies linking agriculture and food issues. These pioneering strategies depend on the political will of elected representatives at both municipal and intermunicipal levels. So, the municipalities prove to be a scale at which there is a political space for agriculture. But they often lack both the technical and the financial resources to carry out their agricultural projects. The trend towards intermunicipal agricultural and food policies could provide more scope and funding for the municipalities to address such issues. Intermunicipal bodies could in future play a strategic role in supporting local agricultural projects, going beyond farmland protection alone. Our results open the way for further research focusing on the agricultural issues emerging at municipal and intermunicipal scales, on the links between these two scales and on how best to coordinate multiple-level decisions.

## Notes

<sup>1</sup> <http://agriculture.gouv.fr/preservation-des-espaces-naturels-agricoles-et-forestiers>.



## Acknowledgements

We thank C. T. Soulard for his useful comments and advices.

The French National Research Agency financed this research: DAUME Project No. ANR-2010-STRA-007-01.

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