HAL
open science

An analytical framework to consider social justice issues in farmland preservation on the urban fringe. Insights from three French cases

Coline Perrin, Brigitte Nougaredes

To cite this version:

Coline Perrin, Brigitte Nougaredes. An analytical framework to consider social justice issues in farmland preservation on the urban fringe. Insights from three French cases. Journal of Rural Studies, 2022, 93, pp.122-133. 10.1016/j.jrurstud.2020.07.007 . hal-02945387

HAL Id: hal-02945387

https://hal.inrae.fr/hal-02945387v1

Submitted on 28 Sep 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

JOURNAL OF RURAL STUDIES

An analytical framework to consider social justice issues in farmland preservation on the urban fringe. Insights from three French cases.

Coline PERRIN[1,2] & Brigitte NOUGAREDES[1,2]

[1]French National Research Institute for Agriculture, Food and Environment (INRAE), UMR Innovation, Montpellier, France
[2]UMR Innovation, INRAE, CIRAD, Montpellier SupAgro, Univ Montpellier, Montpellier, France

*Corresponding author: Coline PERRIN
INRAE-UMR Innovation – Bât. 27
2, Place Pierre Viala
34060 MONTPELLIER FRANCE
coline.perrin@inrae.fr

ABSTRACT
Preserving farmland on the urban fringe is challenging. We hypothesise that the inefficiency of some farmland protection policies may partly arise from a lack of consideration of their social impacts. This paper hence provides a 7-criterion analytical framework to examine the social justice issues raised by the implementation of planning policies. Applying it to three French policies reveals multi-dimensional inequalities arising from farmland preservation on the urban fringe. Regarding distributive justice, all three policies generate unequal access to resources (farmland, building rights) for different types of farmers. They also show spatial variations in regulations and disregard for the special needs of new farmers. Regarding procedural justice, on two of the criteria, 'recognition of difference' and 'perception of injustices', we find evidence of exclusion, domination and lack of recognition that some minority farmers or residents are inconvenienced by agricultural activities. All three farmland preservation policies allow established farmers to capture resources such as land and rights to build farm structures, hindering the renewal and diversification needed for multifunctional agriculture and local food systems.
Our 7 justice criteria could help researchers in other contexts uncover similar forms of power, exclusion, injustice and inequality embedded in the elaboration and implementation of farmland preservation or other planning policies. The insights from three French farmland protection policies may help local authorities anticipate potential justice issues, develop capacities, and provide more inclusive and transparent procedures for expressing or preventing feelings of injustice.

Keywords: periurban agriculture, land-use planning, farm buildings, equity, recognition, capabilities, France

Highlights:
- Implementation of farmland preservation policies (FPP) raises justice issues.
- We identify 7 justice criteria for assessing farmland preservation policies.
- All three cases show inequalities and instances of lobbying, exclusion, and domination.
- Lack of justice is a barrier to social acceptability and efficiency of FPPs.

How to cite this paper: Perrin C., Nougaredes B. (2022). An analytical framework to consider social justice issues in farmland preservation on the urban fringe. Insights from three French cases. *Journal of Rural Studies,* 93, 122-133, https://dx.doi.org/10.1016/j.jrurstud.2020.07.007, https://hal.inrae.fr/hal-02945387,

© 2020. This manuscript version is made available under the CC-BY-NC-ND 4.0 license http://creativecommons.org/licenses/by-nc-nd/4.0/

1. INTRODUCTION

The conversion of farmland to urban uses is an issue worldwide (Bren d'Amour et al., 2016). In Western countries, the need to preserve farmland on urban fringes is currently related to growing concern over the social and environmental costs of urban sprawl (Johnson, 2001), as well as societal demands for food and agriculture-related environmental, recreational, and landscape services (Zasada, 2011; Paül and McKenzie, 2013). An extensive body of literature compares policy instruments to protect farmland and contain urban growth (Alterman, 1997; Bengston et al., 2004; Maruani and Amit-Cohen, 2007).

The literature reports many implementation challenges for planning on the urban fringe (Perrin et al. 2020): too-frequent zoning revisions (Alfasi et al., 2012), non-compliance of municipal master plans (Abrantes et al., 2016) and a lack of adequate enforcement (in the US: Kline et al., 2014, France, or Italy: Falco, 2017 ; Perrin et al., 2018). Moreover, land-use planning may fail to encourage farmers to continue farming on the fringe and thus result in the abandonment of agricultural land despite strict farmland protection policies (Perrin, 2013a). To address such issues, scholars recommend supporting access to land for new direct market farmers (Horst and Gwinn, 2018) and farm enterprise adaptation (Inwood and Sharp, 2012; Duvernoy et al., 2018). Planners recommend combining different types of farmland protection tools—land-use planning regulations (agricultural zoning and urban growth boundaries) with programs for purchase of development rights (Pfeffer and Lapping, 1994; Koomen et al., 2008), and possibly tax incentives (Daniels and Lapping, 2005) for enhanced results. However, each country has its own legal and regulatory context, with specific mechanisms; not all tools can be implemented in every context. In France, public planning intervention in agricultural areas near cities started in the 1960s (Bryant, 1986), but the state only really recognised the preservation of farmland on urban fringes as a major issue in the 1990's (Segesa, 1994). Since then, it has introduced stricter land use regulations through national laws (SRU Law 2000 and Grenelle Laws from 2009 and 2010), while some local governments have tested and implemented innovative initiatives. They have, however, faced implementation challenges (Martin et al. 2006).

Our hypothesis is that the lack of efficiency of some farmland protection programs may be partly due to a lack of consideration of their social impacts. There have been, in fact, very few systematic inquiries into the social impacts of farmland preservation policies so far. In the 1980s, some authors mentioned that such policies affect land prices, access to land, and development rights. Renard (1980) revealed the inequalities and conflicts generated by the implementation of restrictive land-use zoning in France. Jacobs (1989) demonstrated that U.S. policies had differentiated equity impacts. In the following decades, researchers have emphasised the increase in social conflicts over farmland uses and land-use change on the urban fringe (Bryant, 1995; von der Dunk et al., 2011; Darly and Torre, 2013; Pacione, 2013). However, no specific attention has been paid to social justice issues in farmland preservation. These now deserve further academic consideration, in the light of a growing body of research in critical geography revealing the justice issues in urban agriculture initiatives (Tornaghi, 2014; Cohen and Reynolds, 2015; Horst et al., 2017). Research on ecosystem services has shown that equitable governance is instrumental in achieving ecological policy goals, rather than an obstacle (Oldekop et al., 2016; Schreckenberg et al., 2016; Dawson et al., 2018). Holtslag-Broekhof et al. (2014) also identify perceptions of injustice as pivotal aspects in land transactions. The local context and stakeholders' perceptions of injustice and social relations during and after implementation may thus affect farmland protection policy effectiveness as much as policy design itself does.

Our research approach was to examine concrete case studies in order to build and test an analytical framework that would better take account of social justice issues raised by the implementation of farmland preservation policies. In this paper, we explain our analytical framework and describe how we used it to examine the social effects of three recent French farmland preservation policies near the city of Montpellier, a city chosen because of its fast demographic growth and urban expansion over the last 50 years. This new way of looking at farmland preservation on the urban fringe, through the lens of social justice, highlights potential spatial, social, generational, and professional inequalities. Our qualitative analysis involved gathering primary data through document analysis, comprehensive

interviews with stakeholders (government officials and staff, farmers' organisations, and farmers and inhabitants of municipalities experimenting with innovative farmland management), and observations of local negotiations between these actors.

We begin by defining our analytical framework, then we outline the context and method, and subsequently we test our framework on the three French case studies. Finally, we discuss the added value of such a social-justice-based assessment and its applicability beyond France and farmland preservation policies, within the justice-sustainability nexus.

2. ANALYTICAL FRAMEWORK

In this section, we define both the scope of and an initial agenda for a critical analysis of justice issues in farmland preservation (FP) policies on the urban fringe. We start with a brief presentation of the framework proposed by Jacobs (1989), which we then expand in two ways, focusing first on the distributive and second on the procedural dimension of social justice.

2.1. Jacobs' social equity framework

In 1989, H. M. Jacobs proposed a compelling framework to assess social equity impacts of FP policies. Based on Rawls' conception of justice (Rawls, 1971), Jacobs distinguishes distributive ("allocative") and procedural (or "process") equity and also "whether a public policy affects people within a group or class (horizontal equity) or among groups or classes (vertical equity)" (p.23). He further specifies the groups with the most pressing equity concerns in urban fringe areas. Finally, Jacobs proposes a social equity assessment based on five criteria summarised in Table 1.

Jacobs' equity criteria	Policy implication
Intergenerational equity	Policy should preserve long-run options for resource use
Tenure equity for existing landowners	Policy should provide the opportunity for a fair return on land value
Tenure equity for prospective homeowners	Policy should not adversely affect housing prices, by unduly restricting land for residential development
Tenure equity for new farmers	Policy should moderate the price and availability of land such that farmers can acquire land to use in agriculture
Process equity	Policy should be open for participation by a wide range of groups and interests, in both policy formation and administration

Table 1: Jacobs' five social equity criteria (1989) to assess FP policies

Jacobs uses this social equity framework to assess four FP policies in the United States: differential property taxation, large-lot agricultural zoning, purchase of development rights programs, and private land trusts. Jacobs' results are based on secondary sources (literature review) and a comparison of policy programs' structures with his five equity criteria. He concludes that his framework could be supplemented by case studies of actual equity outcomes. This is exactly what we attempt to provide in the results sections. The terms *equity* and *justice* have undergone several changes in meaning; boundaries between the two terms have blurred, and they are often used together or interchangeably (Schreckenberg et al., 2016; Dawson et al., 2018). *Justice* is used mainly by social movements, whereas *equity* is favoured in policy. In this paper, we will use the term *equity* only in reference to Jacobs' criteria—specifically, intergenerational and tenure equity. We prefer the term *justice* because we

consider both the distributive and the procedural dimensions of justice, while *equity* stresses the distributive dimension.

2.2. Distributive justice: considering access to land and housing for distinct types of stakeholders, actors' capabilities, and the spatial distribution of resources

Distributive justice focuses on the outcomes of a policy in terms of (re)distribution of resources: distribution both of costs and benefits and of opportunities and risks among different social groups, which influences who can access some resources and who cannot (or who suffers inconvenience). For Jacobs, distributive justice implied an examination of FP's impacts on land values and the access to farmland and related property rights, as well as a focus on intergenerational and tenure equity. We propose three additions to Jacobs' framework.

First, rather than using Jacobs' tenure equity criteria—which focus on land values— we propose to consider access to land and housing for distinct types of stakeholders. Specifically, we include established farmers in the groups with the most pressing equity concerns, besides the landowners, prospective homeowners, and new farmers mentioned by Jacobs. Distinct types of farmers—for example, those growing different crops—may indeed be affected in different ways by FP policies.

Second, we propose to consider social actors' capabilities, i.e. the capacity to transform resources into valuable activities (or 'functionings', Sen, 2009). For example, new farmers may have access to land and buildings, but without practical skills or a social network, they could remain unable to make a living or to feel satisfied in their business. Following Sen's approach, we will look at whether farmers can achieve outcomes that they value and have freedom of choice to define their project and business models.

Third, we propose to consider the spatial (re)distribution of resources, not only the distribution among groups or within groups. This input comes from the literature on spatial justice: Soja (2010) shows that segregation is often a spatial expression of a social injustice. This spatial dimension of social justice is especially relevant to assess public policies related to land management and land-use change. For instance, Fainstein (2010) evaluates contemporary planning practices in New York City, London, and Amsterdam. She lists criteria of justice by which to formulate and judge planning initiatives at the urban level. We assigned ourselves a similar task concerning FP policies and initiatives.

In assessing the distributive outcomes of FP policies and initiatives, we will thus pay particular attention to intergenerational equity, to stakeholders' access to resources and their capabilities, and to the spatial (re)distribution of resources. These criteria are listed in Table 2 and tested in the results section.

2.3. Procedural justice: considering stakeholder participation, recognition of difference and perceptions of (in)justice

Procedural justice is considered here along three dimensions: open participation (addressed by Jacobs), the recognition of difference (or inclusiveness), and the perception of (in)justice by stakeholders.

Jacobs focuses on participation. He defines process equity as "the impartiality of access to decision processes, whereby individuals and groups can get ideas and concerns expressed" (1989, p.25 and cf. also table 1). His assessment is based on policy design, not on the detailed study of actual cases of implementation. He thus gives large-lot agricultural zoning an excellent rating on process equity because "there is nothing about the structure of the program that prohibits an open process of participation." However, the literature documents many implementation issues in regulatory land-use planning (Alfasi et al. ; 2012 ; Kline et al., 2014 ; Abrantes et al., 2016 ; Falco, 2017 ; Perrin et al., 2018).

We therefore believe that such criteria can only be adequately assessed through the examination of concrete case studies.

Our second criterion is the recognition of difference. Feminist and multiculturalist scholars show that participation alone does not ensure the fairness of a policy process due to structural inequality and hierarchies of power, explaining issues of lobbying and exclusion in policy implementation. Young (1990) focuses on the unjust conditions of domination and oppression. Fraser (1997) points out that marginalised groups may be excluded from the dominant public sphere, but may form their own public spheres (which she calls "subaltern counterpublics"). She suggests assessing social justice through three "pillars": distribution, participation and recognition. The recognition of difference (Young, 1990), or the equal recognition of different identities/groups (Fraser, 1997), is presented by these scholars as a cornerstone of procedural justice. This new criterion raises questions about the inclusiveness of public policy, drawing attention to disadvantaged groups and questioning individuals' actual ability to make their voice/worldview heard and to contribute to policy elaboration and implementation. Scholars in the fields of environmental justice (Schlosberg, 2007; Blanchon et al., 2009; Dawson et al., 2018) and spatial justice (Fainstein, 2010) draw on this literature, often using Fraser's triadic framework or similar concepts. Fainstein's "just city", for instance, is defined according to three criteria: equality, diversity, and democracy.

Our third criterion of procedural justice is stakeholders' perceptions of (in)justice (Young, 1990). These perceptions may be voiced in private (during interviews) or publicly during participatory processes or open conflicts. They may act as drivers of local innovations (Charles et al., 2007). We will also distinguish between issues of justice mentioned by some stakeholders and those identified from our assessment as potential issues but not mentioned by stakeholders during our field enquiries. For each case study analysed in the results section, we will cite the following degrees of perception of justice issues:

- Degree 1: potential issues of justice identified by the researchers but not expressed by stakeholders [*invisible justice issues*].
- Degree 2: feelings of oppression expressed by stakeholders (privately in interviews) [*personal feelings of injustice*].
- Degree 3: public debates or conflicts in which justice issues or feelings of injustice are mentioned and discussed [*public expression of justice issues*].
- Degree 4: change in policy or innovative initiative driven by public expression of social justice issues [*calls for justice as drivers of change*].

Hence, we will assess procedural justice through three criteria: open participation, recognition of difference during policy elaboration and implementation, and stakeholders' perceptions of (in)justice (cf. Table 2).

	Criteria (author cited on this criterion)
Distributive Justice	Intergenerational equity (Jacobs, 1989)
	Access to resources (land, land values, housing) for distinct types of stakeholders (Jacobs, 1989)
	Capabilities (Sen, 2009)
	Spatial (re)distribution of resources (Soja, 2010; Fainstein, 2010)
Procedural Justice	Participation (Jacobs, 1989)
	Recognition of difference / inclusiveness (Young, 1990; Fraser, 1997)
	Stakeholders' perception of (in)justice (Young, 1990; Charles et al.; 2007)

Table 2: analytical framework used to assess FP policies

This section defined a 7-criterion analytical framework, combining criteria proposed in 1989 by Jacobs with criteria suggested by the recent literature on social and spatial justice. We believe that this expanded framework is more appropriate to the qualitative analysis of concrete cases. It should by now be clear to the reader that we are using the concept of justice as an analytical prism to examine the multi-dimensional inequalities related to FP on the urban fringe. In the following section, three case studies will illustrate its use as an effective lens for a fresh observation of FP policy impacts.

3. APPLICATION TO THREE FRENCH CASE STUDIES

We apply the 7-criterion analytical framework to three case studies based on qualitative data collected in the Montpellier city-region in the south of France.

3.1. Contexts and methods

Before presenting the local context and the methods, we briefly describe the French planning system.

3.1.1 French regulatory framework for farmland protection

In France, the conversion of farmland to urban uses is mainly regulated by municipal authorities through binding zoning plans. Following the 1967 national law introducing exclusive agricultural zoning, only farmers were allowed to build in agricultural zones. Since the 1983 decentralisation laws, zoning plans and building permits have been managed by municipalities under the supervision of the département (French local unit of government), which monitors compliance with national laws (Renard and Comby, 1990).

This municipal level of spatial planning has been criticised in France because it has often failed to prevent urban sprawl (Castel, 2007; Vanier, 2008). Municipal land-use regulations are subject to inconsistencies, rezoning, special exceptions, and conditional uses (Martin et al, 2006). Since landowners are not entitled to compensation for “regulatory takings” as in the U.S. (Jacobs, 2008), the defence of property rights, especially building rights, has triggered many conflicts on the urban fringe (Darly and Torre, 2013). Landowners and developers speculate about the future conversion of farmland to urban uses. Lobbies and other local arrangements between public and private actors reinforce urban sprawl (Perrin, 2013b). Exemptions that sometimes run counter to national laws have been granted to farmers, and non-farmers have obtained building permits for houses by submitting "fake agricultural projects" (Nougarèdes, 2011).

Thus, in 2000, a new national law (SRU law) reinforced the regulatory framework in two ways. First, it introduced at the intermunicipal level new masterplans for land-use, called SCOT,[1] with which municipal zoning plans had to progressively comply. Second, the law was clearly intended to limit the loss of farmland and to promote more compact urban patterns. It discouraged the conversion of agricultural zones to urban uses and authorised only buildings “essential” to farming activities in agricultural zones.

In the results section, we provide a critical analysis of this law’s implementation in various départements,[2] and in some municipalities around Montpellier (Hérault département).

3.1.2. Montpellier city-region

The Montpellier city-region was chosen as a case study to test the framework because it is a typical French city in terms of rural-urban land-use. Moreover, the urban pressure on its farmland has been

[1] Standing for "Schéma de cohérence territoriale" in French.
[2] NUTS 2 European administrative level (Nomenclature of Units for Territorial Statistics).

higher in the past 50 years than in the majority of French cities, due to rapid demographic growth and suburban sprawl. In the periurban landscape, individual housing tracts spreading out from the cores of suburban villages have replaced the former vineyards (Jarrige et al., 2013). Around many suburban villages, the urban envelope has become fuzzy, with no clear spatial delineation between housing and farmland.

In 2006, the SCOT intercommunal masterplan was approved at the city-region level. It harmonised land-use policies among 31 municipalities, prioritising urban containment and renewal. Natural and agricultural lands were recognised as a green infrastructure for the city, worthy of preservation. Another reason, therefore, why Montpellier is an interesting case is because farmland protection has been widely and repeatedly debated, in diverse local arenas involving public actors and farmers' representatives. It has become a hot topic locally (Jarrige et al., 2013). Such debates and protests have led to local innovative policies and adaptations of national policy.

3.1.3. Materials and methods: document analysis, observations and interviews

The case studies used to test the analytical framework are based on qualitative methods. Primary data were collected through document analysis, direct observation and in-depth interviews. Case studies 1 and 2 were studied within a PhD thesis (Nougarèdes, 2013).

We analysed the following documents: national planning laws, local planning documents, meeting minutes, local newspapers, and charters of 38 départements, which set out the interpretation of national laws. We used these documents to trace the evolution of the legal framework and to understand how this evolution was locally discussed and taken into account in planning decisions.

Next, we directly observed local negotiations. From 2004 to 2011, one of the authors had the opportunity to attend (as a silent observer) the 31 meetings of the Hérault département Working Group on Urban Planning and Agriculture (WGUPA), a body composed of farmers, government officials, and mayors who met two to six times a year to discuss the way agriculture was being taken into account in urban planning.

To complement this material, we conducted semi-structured in-depth interviews from 2010 to 2016 in the Hérault département. First, we interviewed 10 government officials and staff responsible for the implementation of land-use planning at local levels (municipality and département) and a sample of 5 farmers representing the local farming systems. These interviews (as well as the above-mentioned document analysis and observations) are used in this paper particularly to present the social justice issues related to the implementation of national law concerning farm buildings in large- lot agricultural zones (case study 1). Further interviews were conducted with the largest possible range of stakeholders representing various interests on two local innovative initiatives: 54 interviews on case study 2 between 2008 and 2015 with farmers, residents, mayor, municipal councillors, and wine coop staff; and 17 interviews on case study 3 in 2014 with farmers, government officials and staff, farmers' organisations, and NGOs. These interviews were aimed at understanding local stakeholders' practices and points of view on access to farmland, housing, and building rights. To process the information, we transcribed the interviews and fed their content (and that of the documents and observations) into a common framework for identifying justice issues.

3.2. Results: justice issues in three case studies

In this section, we use the above analytical framework based on the concept of justice to analyse the social effects of FP in three case studies related to the implementation of either national law or local innovative initiatives. These case studies illustrate how to apply the analytical framework: they show actual justice issues related to each criterion and illustrate the type of longitudinal research design

required to encompass all the dimensions of such a social justice assessment. The results are synthesised in Table 5. The three cases will be compared in the Discussion section.

3.2.1. Case 1. Restriction of farmers' building rights in large-lot agricultural zones

Since the 2000 national SRU law, "*only buildings considered essential to farming may be constructed in exclusive agricultural zones*"[3] of municipal land-use plans. However, the law does not precisely define "farm," or "farm buildings" and neither does it explain how to assess the "essential" link to agricultural activity before attributing building permits.

The law's implementation has thus often been subject to negotiations at the scale of the département, in working groups composed of state representatives, farmers' unions, and mayors. The issue of farmers' rights to build housing crystallised the bulk of tensions. Table 3 shows the range of working groups' agreements concerning farmers' housing. In some départements, almost all farmers can build housing provided their farms are economically viable, while in others, only farmers who have to supervise animals or food processing activities can build housing.

Départements	**Conditions for a farmer to obtain a permit to build housing (i.e. when is housing considered "essential" to farming?)**
Ardèche, Ariège, Alpes de Haute Provence, Charente, Cher, Drôme, Eure et Loire, Jura, Loire -Atlantique, Lozère, Deux-Sèvres, Tarn et Garonne	Conditions not mentioned; or condition on housing being "essential" is mentioned without interpretation
Isère, Var, Finistère	Economic viability of the farm
Rhône	Economic viability; house must be built after and close to a non-domestic building
Allier, Eure, Haute Garonne, Ille et Vilaine, Loire, Morbihan, Seine-Maritime, Tarn, Haut-Rhin	Permanent on-site presence of farmer required
Gironde, Landes, Maine et Loire, Mayenne, Pas de Calais, Vienne	Specific work schedules (hours, weekend), type of activity (animal supervision, horticulture, on-site reception of public)
Pyrénées Orientales	Supervision of animals or greenhouses; cold-storage rooms or conditioning units and processing units (wineries, etc.)
Vaucluse	Supervision of animals and heated greenhouses
Hérault	Supervision of animals; wine processing units
Aube, Haute-Savoie, Orne, Vendée	Supervision of animals

Table 3: Interpretation of the SRU law concerning building permits for houses in agricultural zones, as stated in the charters negotiated in 38 départements (2011).

Interviews revealed that these spatial variations in the application of national law anger farmers and trigger feelings of injustice and local conflicts.

On the first criterion, intergenerational equity, the SRU law has increased the protection of agricultural zones, preventing further fragmentation. It should be rated highly, because it preserves long-run options for agricultural use of the land. However, farmers would not accept this definition of intergenerational equity. Many share a feeling of intergenerational injustice because their parents could build houses for themselves (and sometimes for their relatives), while they, today, cannot. The rating for the criterion of intergenerational equity will thus vary according to the interviewee.

On other criteria of distributive justice, only farmers are impacted by the SRU law. Before this law, land value had already decreased in agricultural zones. Prospective homeowners who were not farmers could only rent or buy houses, but could not build any new structure. Landowners could not expect a high return on land sales, except for farmers who might obtain building permits for housing and then sell their properties to prospective homeowners. Following the SRU law, new farmers will still have easy access to farmland at a low price, but they will only be able to build houses if they comply with the restrictive conditions indicated in Table 3. The recent restrictions on building rights may thus

[3] Article R*123-7 of SRU Law (2000)

represent a loss of land value for certain farmers. A condition such as “economic viability of the farm” may be too restrictive for a new business, while living on the farm is often the only way for new farmers to make a living. It is considered by some as an essential resource in the sense of Sen’s capabilities (2009), but it is not recognised as such by the local officials implementing the SRU law. Finally, the variations in the law’s implementation between départements are perceived as spatial injustice among farmers, as are the variations in the rules between municipalities. Around Montpellier, some municipalities forbid all building in agricultural zones. Others have divided their agricultural zone into several spatial sub-sectors with contrasting rules.

Regarding procedural justice, we observed how the law was implemented in the Hérault département. The drawing up of the rules receives a poor rating on participation and on recognition of difference. In 2004, the WGUPA was created to negotiate the interpretation and implementation of the law. Negotiations began between state representatives and the major farmers’ union, representing mainly the wine sector. Other farmers’ requests to participate were rejected. State representatives feared conflicts between mainstream and alternative farmers’ organisations. Even when the central government recommended opening the WGUPA to other farmers’ groups and to civil society representatives in 2008, its members in Hérault refused to do so.

This process is an illustration of oppression (Young, 1990), with the marginalisation of minority farmers and the dominance of the wine sector. Access to the negotiations was unfair and served to strengthen more than to counteract the local predominance of the wine sector. The Hérault WGUPA went on to allow only wine makers and livestock farmers to build housing in agricultural zones. While animal supervision is largely recognised at the national level (cf. Table 3), the supervision of the wine making process is a more surprising condition, as it only lasts less than a month per year. This choice reveals the lobbying strength of the wine sector in Hérault. It also stems from a consensus within the WGUPA favouring a model of farming based on prestigious wine estates. A few years later, representatives of vegetable growers asked the WGUPA for building rights, but their demand was rejected. This case illustrates a direct link between procedural and distributive justice: an unfair procedure induced an unjust allocation of resources (i.e. building rights) between agricultural sectors in Hérault.

In this case, feelings of injustice were publicly expressed and led to policy adjustments and innovations. Farmers expressed resentment towards the SRU law. Intense conflicts arose between farmers’ unions and state representatives. The creation of the WGUPA in 2004 was a public response to these conflicts and an attempt at solving justice issues and building a shared vision. However, the lack of recognition of the diversity of farmers in the negotiations and the choices made concerning building rights in agricultural zones created feelings of injustice for those who could no longer build houses (especially vegetable growers). Grape growers selling their harvest to a wine cooperative were not allowed to build houses on their farms either. However, as members of the wine sector and often of the major farmers’ union, they were not marginalised. The WGUPA considered their request and found a specific solution: the grouping of farm buildings in agricultural housing estates. Some calls for justice hence acted as drivers of policy change (degree 4 of perceptions), but not all: it depends on the voice.

3.2.2. Case 2. Spatial grouping of farm buildings on public land (St-Géniès agricultural housing estate)

Several planning solutions have been tested around Montpellier to compensate for the restriction of farmers' building rights and simultaneously avoid sprawl. The most relevant initiative relies on the spatial grouping of farm buildings on public land (Nougarèdes and Soulard, 2010). These agricultural housing estates (AHE) are mainly intended for grape growers affiliated to wine cooperatives.

Saint-Géniès des Mourgues, a municipality near Montpellier (1,733 inhabitants in 2010), is a pioneer of this innovation. In the early 1990s, the municipality forbade the construction of new farm buildings in the agricultural zone. To compensate farmers for their loss of building rights, the municipality

bought farmland close to the village, developed 12 plots, and sold them to local farmers to build sheds (area no. 1 on figure 1). In the 2000s, when the WGUPA began, the municipality built an AHE to meet local grape growers' housing requirements. The municipality sold plots to 12 local farmers to build housing and storage facilities (area no. 2) at land prices below market value. Faced with complaints from other residents also struggling to obtain housing, the mayor decided to add a housing estate exclusively for non-farmers (area no. 3) between the AHE (area no.2) and the wine cooperative.

Figure 1 : the vine-growing district of Saint-Géniès des Mourgues

This neighbourhood, called "the vine-growing district", did address local inhabitants' housing needs but raised social justice issues among farmers, and also between farmers and other (sometimes poorer) inhabitants.

With regard to intergenerational equity, the municipality has effectively protected farmland from fragmentation since the 1990s, thus preserving long-run options for resource use. The AHE was created to compensate farmers for their loss of building rights. This initiative therefore meets the criteria for intergenerational equity.

Concerning access to resources, land values were kept low in the agricultural zone, which should benefit land-seeking farmers. Additionally, access to housing was eased for farmers and other low-income inhabitants. However, the farmers did much better than other residents. Farmers' plots were larger (1500 m2) and five times cheaper than those for low-income households (300 m2). Access to land at lower prices for non-farmers was tied to income levels, while farmers' eligibility was based on professional status, the economic viability of the farm, and age (50 or younger). These criteria de facto blocked access to the AHE for part-time farmers, new farmers, and young farmers with low incomes, further lowering their chances of successfully carrying out a farming project. Animal husbandry, agricultural processing, and direct sales were also forbidden in the AHE, thus excluding the development of agricultural alternatives to grape growing for the cooperative (for instance, independent wine-makers or market gardeners seeking to do on-farm processing or sales were excluded).

This initiative raised issues of spatial and environmental justice in this district, which reproduces socio-spatial segregation: it concentrates less wealthy inhabitants in a very dense housing estate located between the wine cooperative and the farm buildings. Some residents left after a few years due to noise and suspected chemical contamination. The aerial picture of the district shows clearly that

farmers in the AHE have more space, are less exposed to inconvenience/pollution, and benefit from the agrarian landscape. A woman living in area no.3 explains: “The disadvantage of living in this neighbourhood is the exposure to noise and phytosanitary products. My son has a congenital malformation. We do not know, but I was told that it could come from pesticides. (...) Last week, a wine grower was cleaning his sprayer right there; I constantly look around and close the windows”.

This initiative also lacks procedural justice. The negotiations were conducted between the mayor, the president of the wine cooperative, and a representative of the major farmers’ union. Similarly to the first case study, we observe the exclusion of minority or alternative farming systems due to the dominance of the wine sector, to the sole benefit of the members of the local cooperative. There has also been poor enforcement of the original development plan: some farmers use their houses as secondary homes or their sheds for non-agricultural purposes, which was forbidden. Moreover, the land attribution procedure lacks consistency. People who did not meet the criteria have had access to the agricultural or to the residential housing estate, through informal arrangements with the authorities.

Inequalities between farmers and non-farmers were publicly discussed and impacted municipal policy (degree 4: calls for justice as drivers of change). The expression of feelings of injustice led to successive adjustments of public policy and of its rationale. The rationale for the first public investment (the grouping of sheds in the 1990s, area no.1) was to stop housing scattering and preserve the agrarian landscape, perceived as a key factor in the quality of life in this small, wealthy suburban village. The AHE (area no.2) was then intended to help young farmers obtain housing given the wine sector economic crisis, and may appear fair compensation for a disadvantaged group. However, since the mayor wanted to avoid illegitimate farming projects, the criteria chosen to obtain plots in the AHE (professional status and economic viability) mainly benefited older farmers who already owned houses in the village. Farmers today express mixed feelings concerning the AHE. Some refuse to settle in the AHE, arguing that it is a “ghetto.” Others stress that they cannot live a normal farming life in the estate (for example, rearing a few chickens). Finally, most feelings of injustice are expressed by non-farmers, who believe farmers unduly benefited from the project. Non-farmers’ opposition to the AHE led to the creation of the residential housing estate (area no.3). However, its inhabitants now share feelings of social exclusion. A non-farmer resident told us: “There are farmers with beautiful houses and then, there is us (i.e. non-farmers). It is true that farmers had land at unbeatable prices... Some of them built a house, sheds and cottages for agritourism. And they are not grateful to us at all, whereas, if they have this, it's thanks to us all, because we could have opposed the AHE“. A farmer confirmed this: “It was quite complicated; the mayor promoted and supported the AHE project quite a lot. It triggered a lot of tension between farmers and non-farmers. And even now, there is jealousy. We are still criticised for having built there, for having paid less for the land than non-farmers”.

This case highlights how perceptions of injustice drive change and the building of place-based coalitions of interests (Soja, 2010). Social justice issues create important political leverage (Gervais-Lambony and Dufaux, 2009), encouraging decision-makers to create more socially acceptable policies (Charles et al., 2007). However, the Saint-Géniès des Mourgues case shows that there is also a political challenge. Each public investment benefiting a specific group needs to be supported by a strong policy rationale if it is to be accepted by those outside this group of beneficiaries. In the absence of such a rationale, the municipality’s successive policy adjustments, aimed at addressing successive calls for justice, raised new concerns and resentments. If the policy had been widely discussed with all the inhabitants from the beginning, the municipality would perhaps not have had to readjust it several times.

3.2.3. Case 3. Land access in a public agricultural park

The 2006 city-region masterplan (SCOT of Montpellier) foresaw the creation of agriparks. In such perimeters located on the urban fringe, agriculture must be preserved and multifunctional. This means

it must produce, contribute to short food supply chains and to landscape management, it must protect environmental resources, and offer recreational activities for citizens. In 2010, the Montpellier city-region authority (below "metropolis") bought the 192 ha Viviers estate, where it decided to implement the agripark concept. The metropolis directly manages the estate's 80 ha of forest and rents the remaining 110 ha of farmland to 16 farmers (Table 4).

Type of farm	No. of farmers	Total area (range)	Organic production	Direct sale
Grapes	8	32 (2-7)	No	Only 2
Cereals	3	37.5 (4-16)	Only 1	No
Horse fodder	1	18	No	No
Vegetables	1[a]	4.5	No	Yes
	1 coop.	10	Yes	Yes
Olive trees	1	2	Yes	No
Horticulture	1	1.5	Yes	No
Snails	1	0.45	?	No

Table 4: Main characteristics of tenant farmers in the Viviers agripark in 2014. [a] This farmer produces cereals and vegetables. He was counted twice.

On intergenerational equity, this public acquisition and rental of farmland receives a good rating. The metropolis effectively protected farmland from urbanisation and preserved long-run options for resource use. However, no legal framework or public commitment currently guarantees the long-term designation of the estate for natural and farming uses. Public land may in future be developed for urban uses if there is a change of policy. The rating is thus good but not excellent (Table 5).

Among other issues of distributive justice, resource allocation mainly affected farmers. The former private landowner obtained a good price for the estate, in line with the market value of the land. The implementation of the agripark project did not affect housing access for prospective homeowners, as the metropolis simultaneously developed several housing programs in the area. The public acquisition did not adversely affect local farmers because the estate was abandoned, not cultivated, and no farmer wanted to buy it. However, there appear to be inequalities among tenant farmers: rental agreements range from yearlong renewable leases (for cereals and horse fodder) to 18-year contracts (for grape, vegetables, and olive trees). Farm and house building rights vary within the park among sub-sectors located in different municipalities, which have adopted inconsistent regulations concerning constructions in agricultural zones. Hence, one market gardener was able to build a shed for storage and retail sale, while a vegetable growing cooperative (farm incubator) never obtained a building permit for the same purpose. As in case 1, spatial variations in the implementation of the law are perceived as a spatial injustice among farmers.

In terms of capabilities, most farmers selected as tenants already had viable farms. They rented the agripark's land to extend their farms or to give up other plots rented at higher prices or farther away. In contrast, for the two vegetable growers, the agripark's land was a necessary resource. First, a young vegetable and cereal grower received 10 ha to compensate for the taking of his family land for infrastructure projects, which can be considered just compensation through allocation of public land. Second, a vegetable growing cooperative called TerraCoopa was given 10 ha to achieve social goals. TerraCoopa provides people who intend to start an organic farming business with 1 ha of irrigated farmland and administrative support to test their project and improve their operational capabilities. The agripark should thus be given a good rating for building capabilities.

With regard to procedural justice, however, the agripark project lacks an open and participatory process. The metropolis's acquisition of the estate was decided quickly by politicians, without publicity or public hearings. Farmland allocation also lacked transparency. The metropolis directly selected the two market gardeners who obtained a total of 20 ha. For the remaining 90 ha, a call for application was published in two local newspapers and circulated through the major farmers' unions. Candidates had to apply within the next 20 days. Such a short timeline favoured farmers already running a farm

and/or involved in professional farmers' networks over people seeking to start a business. Only 23 applications were received. Among them, six grape growers coordinated their applications after the brother of one grower, a metropolis employee, informed them of the opportunity. Their applications included the pre-division of the estate land available for grape growing among them, which favoured their selection. While it fulfils all legal requirements, this procedure reveals the weight of personal networks.

This case also illustrates a lack of recognition of the diversity of farmers and their respective contribution to the agripark's objectives. Rationales for public acquisition and tenant selection are not coherent with the goal of promoting multifunctional agriculture. Most of the 110 ha of farmland are rented to farmers whose business models do not include participating in short food supply chains or providing landscape, environment, or recreational services. None of the rental agreements include environmental clauses and less than 20% of the land is cultivated organically. Only the market gardeners and two wine growers sell their production locally and host city dwellers on the farm. Looking at this case study through the lens of Young's faces of oppression (1990), the allocation of land is marked by domination and marginalisation dynamics. Grape and cereals growers involved in dominant farmers' unions grabbed public land. Other types of farmers with less political power were excluded from the official selection process. The direct attribution of land to two market gardeners could be interpreted as a compensation for this skewed process. However, even for them, the weight of personal networks was important: the vegetable growing cooperative was supported by an elected metropolitan representative connected to a minority farmers' union (*confédération paysanne*).

Finally, this case study illustrates the lack of consideration for justice issues in FP policies. The quick, informal, and opaque decision-making process did not leave room for public participation. Therefore, no complaint was mentioned during the selection process. Today, some interviewed farmers express feelings of injustice regarding the land allocation procedure and the inconsistencies in rental agreements or building rights. Yet they only share this privately (degree 2: personal feelings of injustice): there is no open conflict or debate on this. The metropolis employees explain that they did not know much about agriculture when the project started. They learned over the years and, in 2015-2016, they developed a much more inclusive and participatory process for allocating other public lands to farmers. This included a long list of selection criteria and a three-month-long call for application, with the avowed aim of building a shared and collective project (Hasnaoui Amri and Perrin, 2020). Thus, the procedural flaws in the agripark project favoured later recognition of justice issues and procedural improvement.

Criteria of justice		**Policy implications (what policy should take into account)**	**Case 1: farmers' building rights in the Hérault département**	**Case 2: St-Géniès agricultural housing estate**	**Case 3: allocation of public farmland in an agripark in the Montpellier city-region**
Distributive Justice	**Intergenerational equity**	- Policy should preserve farmland and long-run options for resource use - Policy should provide fair access to resources over generations	- Good - Poor: reduced building rights compared to parents	- Excellent - Good: the AHE compensates for farmers' loss of building rights	- Good - Good: the project is run on abandoned farmland not coveted by farmers
	Access to resources	- Policy should provide fair access to farmland for all farmers (to buy or rent) - Land values should remain fair for all stakeholders (including landowners)	- Good - Poor: decreased land value due to loss of building rights	- Good - Poor: all farmers lose building rights but only some are compensated for the decrease in land value	- Mixed: unequal rental agreements, with one case of compensation for land taken - Non applicable: land has become public

		- Policy should provide fair access to housing for all stakeholders (by purchase or through building rights)	- Poor: some farmers lose rights to build houses	- Mixed-poor: the farmers in the AHE benefit more from the project than other inhabitants (better land prices, plot sizes)	- Mixed: no houses are permitted in the agripark, but parallel housing projects are underway
	Capabilities	- Least advantaged farmers should have the ability to achieve their life projects	Poor: new farmers' rights to build are reduced, which affects their ability to start their business	Poor: the AHE provides farm buildings only to established cooperative wine growers	Good: the vegetable growers cooperative helps new farmers test their projects
	Spatial distribution of resources	- Policy should provide fair access to resources in space. Spatial variations in rights must be justified.	Poor: building rights regulations vary between départements, municipalities, and agricultural sub-sectors	Poor: socio-spatial segregation and inconvenience/ pollution from agriculture concentrated near poor residents	Poor: variations in building rights between sub-sectors of the agripark are not justified
Procedural Justice	**Participation**	- The procedure should ensure an open participatory process (public hearing, etc.)	Poor: negotiations behind closed doors, institutional routines	Mixed: public hearings are held, but lobbying and informal arrangements exist, and there is a lack of enforcement of the project rules	Poor: quick and opaque decision-making and a brief window for applications favoured lobbies and personal networking
	Recognition of difference	- The procedure should include all stakeholders, even the less powerful. Minorities and the diversity of farmers & residents should be recognised.	Poor: dominance of the wine sector and exclusion of other stakeholders	Mixed: exclusion of minority farming styles, but inclusion of poor residents and craftspeople	Mixed: dominance of wine growers; but allocation of land to market gardeners, including a cooperative helping new farmers
	Stakeholders' perception of (in)justice	- The procedure should ensure that stakeholders are able to publicly express feelings of injustice, which may lead to policy changes	Degree 4 (calls for justice as drivers of change): much resentment is expressed and public debates lead to policy adjustment and innovations.	Degree 4 (calls for justice as drivers of change): much resentment is expressed publicly and conflicts lead to successive policy adaptations, which however fail to assuage feelings of injustice.	Degree 2 (personal feelings of injustice): actors express resentment in private, but no complaints or conflicts are publicly registered due to the lack of open process.

Table 5: results of our social justice assessment applied to case-studies, and policy implications

The results of our social justice assessment of FP policies are summarised in Table 5. Each justice criterion is translated into policy implications, indicating what a policy should do in order to be considered just and to obtain a "good" rating on this criterion. A "poor" rating means that the policy does not meet the objectives set out as policy implications. A "mixed" rating means that not all the objectives are achieved, or not for all stakeholders. All case studies show improved farmland protection in the face of urbanisation, but this is not always accompanied by social equity.

4. DISCUSSION

This section details the added value from applying our analytical framework to three case studies (4.1). It also discusses methodological insights (4.2), as well as whether the findings can meaningfully be applied to planning beyond the French context (4.3). Finally, recommendations for policy-making are provided (4.4).

4.1. FP policies have important, often unexpected, social impacts

Our results show that even though all three policies analysed around Montpellier did improve farmland protection in the face of urbanisation, they overlooked social justice issues and created new inequalities among farmers and sometimes between farmers and other inhabitants.

In terms of distributive justice, all three policies generated unequal access to resources (farmland, building rights) among different types of farmers. The policies also involved spatial variations in regulations, and lacked consideration for the special needs of new farmers. In terms of procedural justice, the two criteria that we added (recognition of difference and perception of injustices) revealed that there is exclusion, domination, and lack of recognition of some minority farmers or residents inconvenienced by agricultural activities. All three FP policies even show local social imperialism in their procedures (Young, 1990). They allow established winegrowers to capture resources such as land and building rights, while they tend to exclude farmers with little political power and/or capital (market gardeners, new farmers). This imperialism among farmers hinders the renewal and diversification of farms needed to develop multifunctional agriculture and local food systems. We also found evidence that local authorities have difficulty implementing the rules properly. Under the pressure of private lobbies, they deviate from their own rules, which reduces the legitimacy and social acceptability of these policies.

4.2. Methodological insights: the need for longitudinal qualitative case studies to analyse the procedural dimension of justice

Our results show that assessment of the social impacts of an FP protection policy requires a thorough longitudinal qualitative study of actual cases. Solely examining policy design (through document analysis, for instance) can provide valuable insights into the distributive dimension of justice (explain how the policy will (re)allocate resources/inconvenience between or within groups), but not into the causes of such distribution patterns, nor into the procedural dimension of justice.

In-depth longitudinal analysis of actual cases, from policy elaboration to implementation, is key to assessing the procedural dimension of justice. In particular, it sheds light on the influence of the context (4.2.1.), the coherence between initial policy rationales and final policy design (4.2.2.) and the way feelings of injustice may influence FP policies (4.2.3).

4.2.1. Assessing the influence of the context: the role of land tenures, agricultural markets/food regimes and planning systems

Our case studies show that the context has a decisive impact on the procedures and distributive outputs of FP policies. Consistent with the work of Lefebvre on the social production of space (1974) and the suggestion of Tornaghi (2014), we hence advocate deeper investigation of the local combination of land tenures, agriculture markets/food regimes and planning. Assessing this contextual impact on FP policy elaboration and implementation requires in-depth qualitative case studies.

Each case is embedded is a specific geographic, social and political context, which determines relations of power/domination and has direct and indirect impacts on the decision-making process, and consequently on policy design and its distributive outcomes. For instance, the unequal outcomes of the above three FP policies for the different types of farmers could not have been understood without an awareness of the local structural domination of the wine sector in all agricultural arenas around Montpellier and the devolution of planning powers to local authorities in France.

These findings show that the 7 criteria in our analytical framework are not independent: procedural justice may have an impact on distributive justice. Local context and stakeholders' perceptions and relations during and after implementation are as important for social justice and policy effectiveness as the policy design itself.

4.2.2. Assessing coherence between policy rationales, allocation criteria and procedures

Our analytical framework proved useful to reveal possible discrepancies between policy rationales, allocation criteria and procedures. The FP policies we analysed tend to accentuate pre-existing inequalities because of procedural flaws that undermine their purpose.

In case 1, the policy objective (avoiding farmland conversion) was translated into an allocation principle: only buildings that are "essential" to farming activities are authorised in agricultural zones. However, this national legal principle was not translated into an easy-to-assess allocation criterion. Its implementation was negotiated instead in local arenas. In Hérault, these negotiations dominated by the wine sector reproduced entrenched structural injustices and led to building rights being unjustly allocated between agricultural sectors. They also reduced the final effectiveness of the farmland preservation policy by granting building rights to what may turn out to be a large number of farmers, as the number of winegrowers increases. Similar counter-productive interpretations of the national legal principle were observed in other départements (Nougarèdes, 2013).

In case 2, the criteria chosen to obtain plots in the agricultural housing estate (professional status, economic viability) did not serve the purpose of the policy (to help young farmers obtain housing in the context of economic crisis in the wine sector). We also uncovered several biases in the procedure (dominance of the wine cooperative sector, lack of consistency in the attribution procedure and failure to enforce the rules after implementation). Here, procedural injustices triggered social conflicts but did not reduce farmland preservation efficiency.

In case 3, similarly, the criteria for tenant selection were not consistent with the declared goal of promoting multifunctional agriculture in the agripark.

Tracing the procedural dimension of justice from policy elaboration to implementation helps the researcher to reveal these discrepancies between (sometimes evolving) policy rationales and objectives, the allocation principles, their possible translation into selection criteria, and the actual beneficiaries.

Such findings also confirm the need for further research on policy makers' rationales for farmland preservation (Bunce, 1998; Spaling and Wood, 1998). Underlying the planning choices regarding farmland conversion on the urban fringe are diverse conceptions of justice, which echo or conflict with individual demands. In our three French cases, decision-makers refer to diverse patterns of distribution of building rights between owners (case 1), or the rights of certain social classes to obtain housing or land (case 2). Helping the least advantaged groups is sometimes the explanation given for public choices (helping struggling farmers in cases 2 and 3), echoing Rawls' conception of equity. At other times, a utilitarian perspective prevails, for instance when the preservation of agrarian landscapes is held as an unquestionable common interest. While preserving the agrarian landscape can be the rationale for a policy preserving any farming system (case 1), and can even locally support the domination of the wine sector (cases 1 and 2), the rising focus on environmental preservation and local food provisioning (case 3) may favour agricultural alternatives to grape growing, and new farmers with low operational capabilities (in the sense of Sen, 2009). Decision-makers generally do not publicly declare which conception of justice supports their policy rationales, but the critical researcher can reveal this. As stated by Dawson et al. (2018: 34), "cursory attention to, or lack of regard for, local justice framings fails to bring into negotiation the norms and discourses which support exclusionary, centralised approaches and reproduce entrenched injustices."

4.2.3. Analysing perceptions of justice to clarify local justice framings and avoid entrenched injustices

Scholars stress that "measuring social inequalities is an indispensable task and a bottomless pit" (Dubet, 2014). For Jacobs (1989), "social equity assessment of alternative agricultural land protection policies is necessarily a slippery exercise": there is the risk of value judgement, which would go against

the scientific observation approach (Hochedez and Le Gall, 2016). We tried to address this risk: i) by building our analytical framework of social justice on concrete case studies, and ii) by distinguishing between inequalities noted by the researchers and injustices perceived and mentioned by the stakeholders.

Our practical case-study approach shows that feelings of injustice may lower the efficiency of FP policies. If not taken into account by decision-makers, feelings of injustice can trigger individual resentment of FP policies, public and private practices skirting the law (such as bias in the allocation process, informal arrangements), and local conflicts that can hamper implementation. When feelings of injustice are expressed and publicly discussed, they sometimes have an effect on the local framing, rationales, or design of public policy (case 1 & 2): calls for justice can act as drivers of change. We explained in case 2 how the public expression of feelings of injustice caused successive adaptations of public policy and of its rationale. This resulted in a political challenge.

Our results thus illustrate the distinction between differences, inequalities, and injustices (Renaut, 2014). Some inequalities can be accepted as just. For instance in case 2, local citizens accepted young struggling farmers' preferential access to land suitable for building, as long as it was justified by their specific needs in a context of a wine sector economic crisis and by the preservation of the agrarian landscape. However, some residents later rejected the unequal treatment of two groups in precarious employment (farmers and non-farmers) and a land allocation procedure that did not comply with the initial principles. Citizens are thus more likely to accept distributive patterns —even if they create new inequalities— when they are justified by a rationale recognised as in the public interest, or by Rawls' (1971) difference principle, which states that inequalities are allowed when they benefit the least advantaged.

The researcher should examine such injustices perceived and mentioned by stakeholders, but should also reveal invisible inequalities. When feelings of injustice are not publicly expressed, as in the agripark (case 3), it may be due to the lack of an open, transparent, and participatory process. In that case, we only identified some minor feelings of injustice in interviews after the implementation of the program. These did not cause either conflict or policy adaptation. The quick, informal, and opaque decision-making process prevented the perception of inequalities as injustices. The researcher must, however, denounce such invisible inequalities as unjust, especially when they stem from illegal practices (such as personal networks influencing the selection of beneficiaries).

In terms of research design, only in-depth case studies based on interviews and direct observation can reveal such procedural injustices arising from the influence of the context, from a lack of coherence between policy rationale and allocation criteria, or from the invisibility of inequalities.

4.3. Adapting our analytical framework to other contexts and other planning policies

Our analytical framework built to assess social justice issues in FP policies in France may be useful to other scholars working on other contexts and other planning policies.

We believe that our framework can be applied to other geographic contexts to help reveal similar forms of power, exclusion, injustice and inequality embedded in the elaboration and implementation of FP policies. In most countries, the scientific literature shows that FP policies face many implementation challenges on the urban fringe (Alfasi et al 2012, Kline et al. 2014, Abrantes et al 2016) and trigger local conflicts (von der Dunk et al., 2011; Darly and Torre, 2013; Pacione, 2013). Some authors also explicitly evoke issues of distributive and procedural justice concerning rural planning (Kerselaers et al, 2013). Therefore, our analytical framework should prove useful for assessing the social impacts of the implementation of FP policies worldwide. To enhance the wider geographic applicability of the analytical framework, the 7 criteria (Table 2) have been translated into policy implications as generic as possible in Table 5. However, we are aware that these policy implications may need to be adapted to other institutional, economic, sociopolitical and cultural contexts. For

instance, this analytical framework built in a context of private property land regimes of the Global North would need further research before being used in countries with tenure security issues (Arnot et al., 2011) or with a history of a collective property land regime (Lichtenberg and Ding., 2008). The next step would hence be to test our analytical framework by comparing case studies across countries with very different land governance structures or property rights regimes (Tan et al., 2009).

Moreover, our analytical framework could prove useful not only to researchers working on farmland preservation, but to all scholars and policy-makers wishing to assess issues of social justice in the evaluation of planning policies. The 7 criteria used in our framework (Table 2) were developed by scholars to study diverse social justice issues in a variety of situations, not only related to farmland preservation.

Critical geographic approaches have already been developed in the fields of environmental (Schlosberg, 2007; Schreckenberg et al., 2016; Dawson et al., 2018) and food (Gottlieb and Joshi, 2010) policies. Our results highlight the relevance of such a critical approach in the field of planning and farmland management. In order to guide its application to other planning policies, our approach is synthesised in Figure 2. We recommend:

- analysing allocation procedures and principles, taking into account the influence of the institutional, economic, socio-political, and cultural context, which induces various conceptions of property, justice, and the role of the state (arrow 1),
- assessing the policy's impact on social inequalities, exploring the possible redistribution of resources or inconvenience among and between groups and spaces (arrow 2),
- and finally, examining the way in which feelings of injustice caused by some inequalities can sometimes influence policy design and implementation practices (arrow 3).

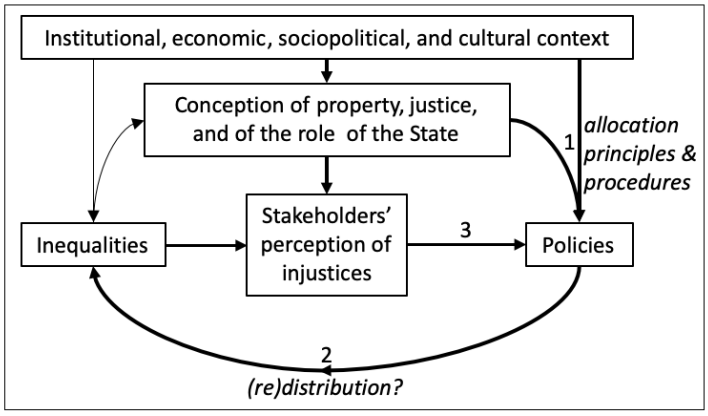

Figure 2: towards a critical approach to planning policies (conception C. Perrin 2020)

Such an agenda should enable researchers to reveal the diverse ways in which people are affected by planning policies and to determine whether and how different groups benefit. The approach would help identify the models of justice and ownership underpinning these policies, highlighting multiple justice perspectives that could further inform the development of guidelines and tools for more just policies.

4.4. Recommendations to improve social justice and efficacy of FP policies

Finally, we draw from these findings several lessons for policy improvement.

4.4.1. Build public capacities and skills to anticipate potential justice issues

Our findings show the need for local authorities in charge of policy elaboration and implementation to build the capacities and skills that will enable them to anticipate potential justice issues in planning policies. First, our case studies can increase awareness that the lack of efficiency of some farmland protection programs may partly stem from a lack of consideration of their social impacts. Then, our analytical framework with its 7 criteria and their policy implications can serve as a tool for training public actors, helping them consider justice issues at the stage of policy elaboration. Finally, testing this framework on case studies has also clearly demonstrated the impact of local relations of power/domination. To avoid bias due to entrenched injustices connected with such relations of power during policy elaboration and implementation, decision-makers and public actors need to be familiar with the local historical, geographic, and socio-political context. Moreover, they are themselves generally enmeshed in these relations of domination and/or limited by institutional routines. Critical researchers can hence provide evidence, knowledge, and tools to help public actors build the capacities and skills needed to anticipate potential justice issues and avoid structural bias in procedures.

4.4.2. Provide inclusive and transparent procedures fostering the public expression of feelings of injustice

To better take account of feelings of injustice during policy elaboration, policy objectives and resource allocation principles should be aligned, and they should be publicly discussed and then translated into clearly formulated rules and objective, easy-to-assess, selection criteria (leading to transparent scoring of applicants, for instance), so that there can be no dispute over successful candidates. Then, the participatory process should provide enough occasions for critical public debate (in the sense of Habermas). Peer focus groups could also be planned, to involve different types of stakeholders and farmers. Farmers themselves are not a homogeneous social category: our cases confirm that they may express divergent points of view depending on their farming systems, age or land strategy (James, 2014; Serrano and Vianey, 2014). Building a consensus does not mean ignoring these conflicting worldviews. Instead, stakeholders' perceptions should be acknowledged (Fitzsimons et al., 2012) and potential value conflicts identified (Kerselaers et al., 2013), in order to avoid the usual resentment of planning processes. Including several subaltern counterpublics (Fraser, 1997) in the participation process is an efficient way to improve recognition of the different groups of people impacted by farmland protection policies during the procedure. It is also a practical way to defuse the risk of a conflict that could slow or hamper policy implementation.

CONCLUSION

Our objective here was to build a social-justice-based analytical framework and to test it on case studies. We refined Jacobs' 1989 framework through insights from recent literature on spatial and social justice. In addition to the distribution of resources/inconvenience among and within social groups, we highlight the impacts of spatial variations in regulations and the lack of consideration of the special needs of new farmers. The focus on procedures (including participation, recognition and perception) reveals issues of lobbying and exclusion in policy implementation. It also highlights the different conceptions of justice that different types of stakeholders may advocate for during policy elaboration and implementation. Our results hence confirm that the lack of efficiency of some farmland protection programs may be partly due to a lack of consideration of their social impacts.

The application of this new 7-criterion framework to three French case studies reveals it as a useful analytical device to untangle the multi-dimensional inequalities related to FP on the urban fringe. It can thus provide an effective lens for a fresh observation of FP policy impacts. To this end, we stress the need for longitudinal qualitative studies to assess the procedural dimension of justice, and

especially the influence of the context, the coherence between initial policy rationales and final policy design, and the way in which feelings of injustice caused by some inequalities may influence FP policies.

Looking beyond farmland preservation in France, we believe that our critical geographic approach may inspire scholars seeking to assess issues of social justice when evaluating other planning policies, in other contexts of the Global North and private property regimes. This framework could also guide policy-makers who wish to improve the social justice of farmland preservation policies. In line with the justice-sustainability nexus mentioned by critical thinkers on environmental justice (Agyeman, 2013; Laurent, 2020), we believe that a social-ecological policy is needed to reduce environmental destruction. If feelings of injustice are a barrier to effective policy implementation, taking social justice issues into account when designing and implementing local policies will be essential to achieving long-term farmland preservation.

ACKNOWLEDGEMENT

This work was supported by the French National Research Agency (ANR) [JASMINN project ANR-14-CE18-0001].

REFERENCES

Abrantes, P., Fontes, I., Gomes, E., Rocha, J., 2016. Compliance of land cover changes with municipal land use planning: Evidence from the Lisbon metropolitan region (1990–2007). *Land Use Policy* 51, 120–134. https://doi.org/10.1016/j.landusepol.2015.10.023

Agyeman, J., 2013. *Introducing Just Sustainabilities*. Zed Books.

Alfasi, N., Almagor, J., Benenson, I., 2012. The actual impact of comprehensive land-use plans: Insights from high resolution observations. *Land Use Policy* 29, 862–877. https://doi.org/10.1016/j.landusepol.2012.01.003

Alterman, R., 1997. The Challenge of Farmland Preservation: Lessons from a Six-Nation Comparison. *Journal of the American Planning Association* 63, 220–243. https://doi.org/10.1080/01944369708975916

Arnot, C.D., Luckert, M.K., Boxall, P.C., 2011. What Is Tenure Security? Conceptual Implications for Empirical Analysis. *Land Economics* 87, 297–311.

Bengston, D.N., Fletcher, J.O., Nelson, K.C., 2004. Public policies for managing urban growth and protecting open space: policy instruments and lessons learned in the United States. *Landscape and Urban Planning* 69, 271–286. https://doi.org/16/j.landurbplan.2003.08.007

Blanchon, D., Moreau, S., Veyret, Y., 2009. Comprendre et construire la justice environnementale. *Annales de géographie* n° 665-666, 35–60. https://doi.org/10.3917/ag.665.0035

Bren d'Amour, C., Reitsma, F., Baiocchi, G., Barthel, S., Güneralp, B., Erb, K.-H., Haberl, H., Creutzig, F., Seto, K.C., 2016. Future urban land expansion and implications for global croplands. *PNAS*. https://doi.org/10.1073/pnas.1606036114

Bryant, C., 1986. Farmland Conservation and Farming Landscapes in Urban-Centerd Regions - the Case of the Ile-De-France Region. *Landsc. Urban Plan*. 13, 251–276. https://doi.org/10.1016/0169-2046(86)90041-1

Bryant, C.R., 1995. The role of local actors in transforming the urban fringe. *Journal of Rural Studies* 11, 255–267. https://doi.org/10.1016/0743-0167(95)00020-N

Bunce, M., 1998. Thirty years of farmland preservation in North America: Discourses and ideologies of a movement. *Journal of Rural Studies* 14, 233–247. https://doi.org/10.1016/S0743-0167(97)00035-1

Castel, J.-C., 2007. De l'étalement urbain à l'émiettement urbain : Deux-tiers des maisons construites en diffus. *Annales de la recherche urbaine* 89–96.

Charles, L., Emelianoff, C., Ghorra-Gobin, C., Roussel, I., Roussel, F.-X., Scarwell, H., 2007. Les multiples facettes des inégalités écologiques. *Développement durable et territoires. Économie, géographie, politique, droit, sociologie*. https://doi.org/10.4000/developpementdurable.3892

Cohen, N., Reynolds, K., 2015. Resource needs for a socially just and sustainable urban agriculture system: Lessons from New York City. *Renewable Agriculture and Food Systems* 30, 103–114. https://doi.org/10.1017/S1742170514000210

Daniels, T., Lapping, M., 2005. Land Preservation: An Essential Ingredient in Smart Growth. *Journal of Planning Literature* 19, 316–329. https://doi.org/10.1177/0885412204271379

Darly, S., Torre, A., 2013. Conflicts over farmland uses and the dynamics of "agri-urban" localities in the Greater Paris Region: An empirical analysis based on daily regional press and field interviews. *Land Use Policy* 33, 90–99. https://doi.org/10.1016/j.landusepol.2012.12.014

Dawson, N., Coolsaet, B., Martin, A., 2018. Justice and equity : Emerging research and policy approaches to address ecosystem service trade-offs, in: *Ecosystem Services and Poverty Alleviation. Trade-Offs and Governance*. Routledge, London, https://doi.org/10.4324/9780429507090-3

Dubet, F., 2014. *Inégalités et justice sociale*. La Découverte.

Duvernoy, I., Zambon, I., Sateriano, A., Salvati, L., 2018. Pictures from the other side of the fringe: Urban growth and peri-urban agriculture in a post-industrial city (Toulouse, France). *Journal of Rural Studies* 57, 25–35. https://doi.org/10.1016/j.jrurstud.2017.10.007

Fainstein, S.S., 2010. *The Just City*. Cornell University Press, Ithaca, NY.

Falco, E., 2017. Protection of coastal areas in Italy: Where do national landscape and urban planning legislation fail? *Land Use Policy* 66, 80–89. https://doi.org/10.1016/j.landusepol.2017.04.038

Fitzsimons, J., Pearson, C.J., Lawson, C., Hill, M.J., 2012. Evaluation of land-use planning in greenbelts based on intrinsic characteristics and stakeholder values. *Landscape and Urban Planning* 106, 23–34. https://doi.org/10.1016/j.landurbplan.2012.01.012

Fraser, N., 1997. *Justice interruptus: critical reflections on the "postsocialist" condition*. New York, USA.

Gervais-Lambony, P., Dufaux, F., 2009. Justice... spatiale ! *Annales de géographie* 3–15.

Gottlieb, R., Joshi, A., 2010. *Food justice*. MIT Press, Cambridge, Mass., Etats-Unis d'Amérique.

Hasnaoui Amri, N., Perrin, C., 2020, Quand la ville devient bailleur foncier agricole. Innovation, justice et apprentissages lors d'attributions de terres publiques à Montpellier. In Perrin, C. and Nougarèdes, B., *Le foncier agricole dans une société urbaine. Innovations et enjeux de justice.* Cardère édition, Avignon (France), 209-232.

Hochedez, C., Le Gall, J., 2016. Food Justice and Agriculture / Justice alimentaire et agriculture. *Justice spatiale / Spatial Justice* 1–31. https://www.jssj.org/article/justice-alimentaire-et-agriculture/

Holtslag-Broekhof, S.M., Beunen, R., van Marwijk, R., Wiskerke, J.S.C., 2014. "Let's try to get the best out of it" understanding land transactions during land use change. *Land Use Policy* 41, 561–570. https://doi.org/10.1016/j.landusepol.2014.04.016

Horst, M., Gwin, L., 2018. Land access for direct market food farmers in Oregon, USA. *Land Use Policy* 75, 594–611. https://doi.org/10.1016/j.landusepol.2018.01.018

Horst, M., McClintock, N., Hoey, L., 2017. The Intersection of Planning, Urban Agriculture, and Food Justice: A Review of the Literature. *Journal of the American Planning Association* 83, 277–295. https://doi.org/10.1080/01944363.2017.1322914

Inwood, S.M., Sharp, J.S., 2012. Farm persistence and adaptation at the rural–urban interface: Succession and farm adjustment. *Journal of Rural Studies* 28, 107–117. https://doi.org/10.1016/j.jrurstud.2011.07.005

Jacobs, H.M., 2008. The Future of the Regulatory Takings Issue in the United States and Europe: Divergence or Convergence? *The Urban Lawyer* 40, 51–72.

Jacobs, H.M., 1989. Social equity in agricultural land protection. *Landscape and Urban Planning* 17, 21–33. https://doi.org/16/0169-2046(89)90064-9

James, S.W., 2014. Protecting sydney's peri-urban agriculture: Moving beyond a housing/farming dichotomy. *Geographical Research* 52, 377–386. https://doi.org/10.1111/1745-5871.12048

Jarrige, F., Chery, J.-P., Buyck, J., Gambier, J.P., 2013. The Montpellier Agglomération New Approaches for Territorial Coordination in the Periurban, in: Nilsson, K., Pauleit, S., Bell, S., Aalbers, C., Sick Nielsen, T.A. (Eds.), Peri-*Urban Futures: Scenarios and Models for Land Use Change in Europe*. Springer Berlin Heidelberg, Berlin, Heidelberg, pp. 241–274. https://doi.org/10.1007/978-3-642-30529-0_10

Johnson, M.P., 2001. Environmental Impacts of Urban Sprawl: A Survey of the Literature and Proposed Research Agenda. *Environ Plan A* 33, 717–735. https://doi.org/10.1068/a3327

Kerselaers, E., Rogge, E., Vanempten, E., Lauwers, L., Van Huylenbroeck, G., 2013. Changing land use in the countryside: Stakeholders' perception of the ongoing rural planning processes in Flanders. *Land Use Policy* 32, 197–206. https://doi.org/10.1016/j.landusepol.2012.10.016

Kline, J.D., Thiers, P., Ozawa, C.P., Alan Yeakley, J., Gordon, S.N., 2014. How well has land-use planning worked under different governance regimes? A case study in the Portland, OR-Vancouver, WA metropolitan area, USA. *Landscape and Urban Planning* 131, 51–63. https://doi.org/10.1016/j.landurbplan.2014.07.013

Koomen, E., Dekkers, J., van Dijk, T., 2008. Open-space preservation in the Netherlands: Planning, practice and prospects. *Land Use Policy* 25, 361–377. https://doi.org/10.1016/j.landusepol.2007.09.004

Laurent, É., 2020. *The new environmental economics: sustainability and justice*. Polity Press, Cambridge, United Kingdom.

Lefebvre, H., 1974. La production de l'espace. Éditions Anthropos, Paris, France.Lichtenberg, E., Ding, C., 2008. Assessing farmland protection policy in China. *Land Use Policy* 25, 59–68. https://doi.org/10.1016/j.landusepol.2006.01.005

Martin, S., Bertrand, N., Rousier, N., 2006. Les documents d'urbanisme, un outil pour la régulation des conflits d'usage de l'espace agricole périurbain ? *Géographie, économie, société* 8, 329–350. https://doi.org/10.3166/ges.8.329-350

Maruani, T., Amit-Cohen, I., 2007. Open space planning models: A review of approaches and methods. *Landscape and Urban Planning* 81, 1–13. https://doi.org/10.1016/j.landurbplan.2007.01.003

Nougarèdes, B., 2011. Quelles solutions spatiales pour intégrer l'agriculture dans la ville durable ? Le cas des « hameaux agricoles » dans l'Hérault. *Norois. Environnement, aménagement, société* 53–66. https://doi.org/10.4000/norois.3775

Nougarèdes, B., 2013. *Modes d'insertion socio-spatiale du bâti agricole périurbain et sociabilités locales : le cas des "hameaux agricoles" dans l'Hérault* (PhD in sociology). Université de Toulouse-Jean Jaurès.

Nougaredes, B., Soulard, C.T., 2010. Integrating farm buildings in peri-urban land planning: a social issue. In Galli M., Lardon S., Marraccini E., Bonari E. (eds) *Agricultural management in peri-urban areas*, Felici Editore, Pisa (ITA), pp. 120–129.

Oldekop, J.A., Holmes, G., Harris, W.E., Evans, K.L., 2016. A global assessment of the social and conservation outcomes of protected areas. *Conservation Biology* 30, 133–141. https://doi.org/10.1111/cobi.12568

Pacione, M., 2013. Private profit, public interest and land use planning—A conflict interpretation of residential development pressure in Glasgow's rural–urban fringe. *Land Use Policy* 32, 61–77. https://doi.org/10.1016/j.landusepol.2012.09.013

Paül, V., McKenzie, F.H., 2013. Peri-urban farmland conservation and development of alternative food networks: Insights from a case-study area in metropolitan Barcelona (Catalonia, Spain). *Land Use Policy* 30, 94–105. https://doi.org/10.1016/j.landusepol.2012.02.009

Perrin, C., 2013a. Regulation of Farmland Conversion on the Urban Fringe: From Land-Use Planning to Food Strategies. Insight into Two Case Studies in Provence and Tuscany. I*nternational Planning Studies* 18, 21–36. https://doi.org/10.1080/13563475.2013.750943

Perrin, C., 2013b. Le foncier agricole dans les plans d'urbanisme : le rôle des configurations d'acteurs dans la production locale du droit. *Géocarrefour* 88, 183–194.

Perrin, C., Nougarèdes, B., Sini, L., Branduini, P., Salvati, L., 2018. Governance changes in peri-urban farmland protection following decentralisation: A comparison between Montpellier (France) and Rome (Italy). *Land Use Policy* 70, 535–546. https://doi.org/10.1016/j.landusepol.2017.09.027

Perrin, C., Clément, C., Melot, R., Nougarèdes, B., 2020. Preserving Farmland on the Urban Fringe: A Literature Review on Land Policies in Developed Countries. *Land* 9.

Pfeffer, M.J., Lapping, M.B., 1994. Farmland preservation, development rights and the theory of the growth machine: the views of planners. *Journal of Rural Studies* 10, 233–248. https://doi.org/10.1016/0743-0167(94)90051-5

Rawls, J., 1971. *A theory of justice*. The Belknap Press of Harvard University Press, Cambridge, Mass., Etats-Unis d'Amérique.

Renard, V., 1980. Plans d'urbanisme et justice foncière. *Presses universitaires de France*, impr.1980, Paris, France.

Renard, V., Comby, J., France, 1990. *Land Policy in France, 1945-1990*. ADEF [Association des études foncières], Paris.

Renaut, A., 2014. *Différences, inégalités, injustice. Une grille conceptuelle de la démocratie*. La Découverte.

Schlosberg, D., 2007. *Defining environmental justice: theories, movements, and nature*. Oxford, Royaume-Uni de Grande-Bretagne et d'Irlande du Nord, Etats-Unis d'Amérique.

Schreckenberg, K., Franks, P., Martin, A., Lang, B., 2016. Unpacking equity for protected area conservation. *Parks* 22, 11–26. (doi:10.2305/IUCN.CH.2016.PARKS-22-2KS.en).

Segesa, 1994. *Entre ville et campagne : les espaces de périurbanisation : identification et problèmes : propositions pour l'action publique*. Public report. Ministère de l'agriculture et de la pêche, France.

Sen, A., 2009. *The idea of justice*. London : Allen Lane, Harvard University Press.

Serrano, J., Vianey, G., 2014. Patrimonialiser des activités agricoles pour banaliser la consommation d'espaces agricoles périurbains : réflexions à partir du cas de l'agglomération de Tours. *Géographie, économie, société* Vol. 16, 297–314.

Soja, E.W., 2010. *Seeking Spatial Justice*. University of Minnesota Press.

Spaling, H., Wood, J.R., 1998. Greed, need or creed? Farmland ethics in the rural-urban fringe. *Land Use Policy* 15, 105–118. https://doi.org/10.1016/S0264-8377(98)80009-4

Tan, R., Beckmann, V., van den Berg, L., Qu, F., 2009. Governing farmland conversion: Comparing China with the Netherlands and Germany. *Land Use Policy* 26, 961–974. https://doi.org/10.1016/j.landusepol.2008.11.009

Tornaghi, C., 2014. Critical geography of urban agriculture. *Prog Hum Geogr* 0309132513512542. https://doi.org/10.1177/0309132513512542

Vanier, M., 2008. *Le pouvoir des territoires : essai sur l'interterritorialité*, Géographie. Anthropos, Paris : Economica.

von der Dunk, A., Grêt-Regamey, A., Dalang, T., Hersperger, A.M., 2011. Defining a typology of peri-urban land-use conflicts – A case study from Switzerland. *Landscape and Urban Planning* 101, 149–156. https://doi.org/10.1016/j.landurbplan.2011.02.007

Young, I.M., 1990. *Justice and the politics of difference*. Princeton (New Jersey).

Zasada, I., 2011. Multifunctional peri-urban agriculture--A review of societal demands and the provision of goods and services by farming. *Land Use Policy* 28, 639–648. https://doi.org/16/j.landusepol.2011.01.008