



HAL
open science

PSDR4 Cap IDF -Land governance for local agriculture in Ile-de-France

Romain Melot, Ségolène Darly

► **To cite this version:**

Romain Melot, Ségolène Darly. PSDR4 Cap IDF -Land governance for local agriculture in Ile-de-France. *Innovations Agronomiques*, 2024, 86, pp.24-36. 10.17180/ciag-2024-vol86-art03-GB . hal-04700878

HAL Id: hal-04700878

<https://hal.inrae.fr/hal-04700878v1>

Submitted on 18 Sep 2024

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.



Distributed under a Creative Commons Attribution - NonCommercial - NoDerivatives 4.0
International License



PSDR4 Cap IDF - Land governance for local agriculture in Ile-de-France

Romain MELOT¹, Ségolène DARLY¹

¹ UMR SADAPT, AgroParisTech, 16 rue Claude Bernard, 75005 Paris, France

Correspondence : romain.melot@inrae.fr

Cap IDF - Land governance of proximity agriculture in the Ile-de-France region

The Cap IDF project aims to understand the logics of localization and diversification of proximity farming activities close to urban poles in the Ile-de-France region. In this perspective, the project is based on an analysis of land governance of these farming activities by comparing the strategies of farmers, the attitude of landowners, the relations of residents to agriculture and the local public choices concerning land development.

Our research investigates the dynamics of land diversification on farms, a trend which can be characterised by rapid changes. The project innovates by proposing an original perspective on land governance. We combine the study of various dimensions: economic strategies of farmers, practices of periurban residents and the implementation of local public land management.

Our research has highlighted dynamics concerning the relocalization of farming activities in the Parisian metropolitan region, although it is predominantly characterised by field crops. Our work also helped a better understanding of competitions between activities on farmland uses in a metropolitan region. Lastly, our project identified and analysed innovations in farmland governance likely to change relations between local stakeholders.

Keywords: Access to land, Urban planning, Short supply chains, Diversification, Gardens.

1. Introduction

1.1 Scientific aspects of the project

The impact of proximity to the city on agricultural land and activity is multi-faceted and has been the subject of abundant scientific literature for several decades (Bryant and Johnson, 1991; Géniaux and Napoléone, 2005; Cavailhes and Wavresky, 2006; Delattre et al., 2012; Bertrand, 2013). The severe constraints induced by proximity to the city can also be a source of opportunities for farmers capable of pursuing specific investment strategies (Mori, 1998; Inwood and Sharpe, 2012; Perrin, 2013). These findings echo research conducted in France on the development of short supply chains and the impact of proximity to the city on the innovation trajectories of farms (Aubry et al., 2012; Chiffolleau and Prévost, 2012).

It is on the basis of these different parameters, between constraints and opportunities, that the notion of "proximity agriculture" is defined: a form of agriculture under urban influence, as long as this is expressed through specific production and commercial strategies, which are guided by the proximity of the city and which are based on initiatives (public or private) led by urban stakeholders (Torre et al., 2013; Hochedez and Le Gall, 2011). This type of agriculture is not intended to play a central role in supplying urban areas such as the Paris region (Billen et al., 2012). But local agriculture is likely to draw on a territorial identity to promote production geared towards local urban outlets (Ilberry et al., 2005; Morgan et al., 2006; Pothukuchi, 2009; Sonnino, 2009; Zasada, 2011).



The complexity of these issues makes it appropriate to analyze land governance, a concept that takes as its object all the behaviours, power relations and institutions that determine changes in a local land system, bringing together both private (farmers, residents, owners) and public stakeholders (State, local authorities) (Lavigne Delville and Durand-Lasserve, 2009). This approach is particularly well suited to our multi-disciplinary approach to the social sciences, combining economics, sociology, geography, urban planning and political science. The PSDR4 Cap IDF project combines the study of the economic strategies of farms and the practices of residents (kitchen gardens) with the empirical implementation of local land management (legal requirements, local authority projects).

1.2 The project team and our sites

The project brings together 7 laboratories with a range of social sciences skills and 6 local partners (Gâtinais regional natural park, Fontainebleau-Gâtinais Biosphere Reserve, SAFER Ile-de-France, Grand Paris Aménagement, Communauté d'agglomération Roissy Pays de France), who are key players in land management in the Ile-de-France region. Our key player is the Terre de liens Ile-de-France association. It is involved in land portage projects for farm start-ups. As part of its acquisitions, it is in constant dialogue with local elected representatives and promotes environmentally-friendly agricultural projects. On a wider scale, it also provides feasibility assessments for agricultural projects in the suburbs of the Paris region.

Our research focused on two scales of analysis, which are reflected in the various research workpackages. A first series of surveys and studies were carried out at the regional level.. These mainly consisted of statistical surveys on the diversification of agricultural activities, as well as an analysis of local planning regulations and court cases. The second scale is that of what we have called "workshop zones". These are study areas in which we proposed that several of the project's partners come together to carry out surveys: Greater Roissy, Gâtinais regional park, Saclay Plateau.

1.3 Our local partners

The aim of the Cap IDF project was to encompass the various components of land governance. The diversity of the skills of the partner players in land management is therefore essential in order to understand research topics as varied as the urban services provided by agriculture, public land management, regulatory requirements, farmers' land strategies and the practices of owners and residents. In addition, some of the partner organisations are involved in agricultural issues (SAFER, Terres de liens) or environmental issues (Biosphere Reserve), while others are primarily involved in managing regional development projects (Gâtinais regional park, Grand Paris Aménagement, Roissy Pays de France). This complementary approach between town and country is essential if we are to understand the complex, and sometimes contradictory, rationale behind development choices.

1.4 The methods used

In order to study the dynamics of farm diversification in the Ile-de-France region, we implemented a methodology for the quantitative diachronic analysis of data on land use based on farmers' declarations. In order to analyze the political choices and controversies surrounding land-use planning, we compiled an original database of local urban planning regulations. We also applied a methodology for the statistical analysis of appeals to identify the claims and arguments raised by applicants in the field of town planning litigation.

We mapped cultivated areas in urbanized areas, using techniques based on visual interpretation



of aerial photographs. We also used qualitative methods in the various areas of research: interviews using semi-structured questionnaires with local planning and development players (municipal planning departments, public developers, private players in the construction and development sectors, owners and farmers).

2. Lessons from our research on agricultural land governance in urban areas

The results of the project can be summarized around three main issues set out below.

2.1 The dynamics of the reterritorialization of agriculture

Our research has shown the dynamics of the reterritorialization of agricultural activities in the Paris metropolitan area, which is mainly characterized by large-scale farming geared towards export markets (sections 1 and 4).

2.1.1. *Diversification on arable farms*

We have explored these dynamics through market gardening production in two extreme situations, one illustrating the dominant professional agricultural model, over large areas (diversification into market gardening in field crops), the other referring to non-professional forms in peri-urban interfaces over small areas (kitchen gardens).

Our analysis of agricultural land use data (graphical parcel register), carried out over the whole of the Ile-de-France region, has helped us to characterize very precisely the importance of market garden crops, both in terms of their land holdings and their contribution to the total value of crops produced on farms. In this way, we have been able to identify, at sub-municipal level, a persistent market-gardening activity on arable farms in a number of peri-urban agricultural regions (Hurepoix, Vexin, Yvelines, Seine valley, Paris inner suburbs, Plaine de Versailles). This activity is integrated into farms that are mainly specialized in arable farming. However, when viewed in the wider context of the central Paris basin, the Ile-de-France region is characterized by market garden islands of smaller size, no doubt due to the land pressure associated with the proximity of the Paris urban area.

Analysis of the land tenure trajectories of farms has enabled us to identify various development profiles: growth (increase in surface area and number of blocks declared), growth with reconfiguration (increase in surface area declared, but with bilateral exchanges of blocks between farmers), disappearance (splitting up of a farm's blocks between multiple farms), reconfiguration (exchange of islets between farms with the same declared area), reduction (decrease in area and number of islets declared), reduction with reconfiguration (decrease in area but with bilateral exchange of islets between farmers), stability (stability in area and number of islets declared for a farm). STOP

One of the salient results of this analysis is the over-representation of growth trajectories for farms where market gardening was present over the period studied.

We also analyzed the role and dynamics of grassland in the declared parcels of land. Grassland is more prevalent at the edge of the Ile-de-France region than at the edge of the urban front, but is rarely permanent. Grassland is introduced into the Ile-de-France landscape mainly through rotation with other crops, particularly cereals.

We also carried out a study of local approaches to agricultural diversification, based on two studies of municipalities characterized by an increase in market gardening plots between 2007 and 2013: Cergy (Val-d'Oise) and Perthes (Seine-et-Marne). These two local case studies confirmed the value and methodological limitations of dynamic analysis of land parcels in the

Graphic Land Register. It appears that the growth in market gardening plots is not due to the setting-up of new market gardening farms, but in one case to the entry of market gardeners in the CAP register (in Cergy) and in the other to crop rotation on farms alternating field crops and market gardening within their plot (in Perthes).

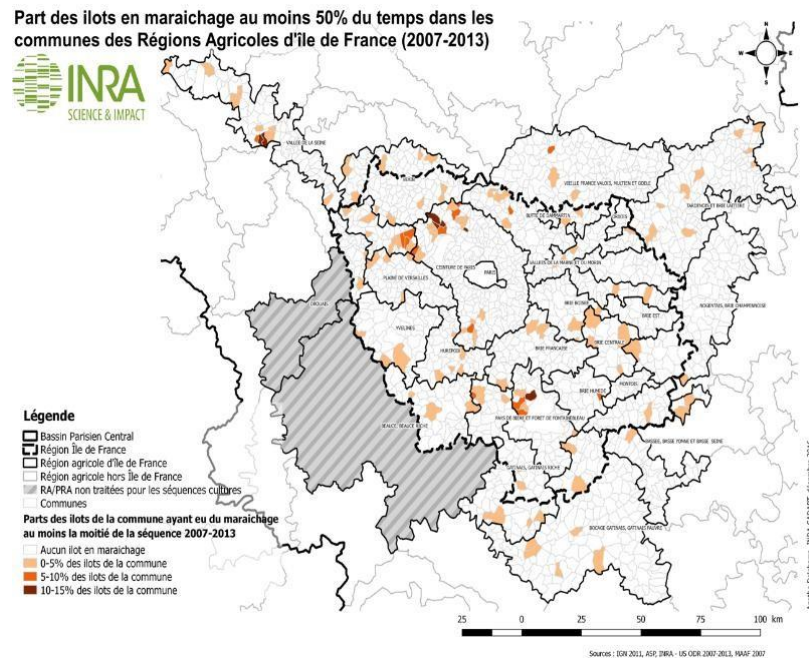


Figure 1: The dynamics of diversification in market gardening. (Municipalities in the small agricultural regions of Ile-de-France in which field crop farms have developed market gardening. Sources: RPG 2007-2013 data, analysed by A. Delebarre, S. Darly, J. Traversac)

2.1.2. Land governance in domestic cultivated areas: gardens and vegetable gardens

We also compiled a database of kitchen gardens in the Roissy Pays de France study area, enabling us to produce an exhaustive map of food production in these areas. Our results showed the very frequent presence of private vegetable gardens (the cultivated areas being identified as such by aerial photo-interpretation), which are identified in all the municipalities within the perimeter, even where neither the local authority nor the residents have set up collective gardens (allotments or shared gardens). The quantitative approach also shows that the cumulative cultivated area of individual private suburban gardens is almost equivalent to the cumulative area of collective gardens. Even if these surface area indicators do not allow for a detailed assessment of their contribution to food production (this assessment also depends on yield scenarios), these results lead us in all cases to significantly re-evaluate the dimension of food production.

The city's "productive" open spaces.

An analysis of urban planning documents has also revealed that these vegetable gardens are given varying degrees of consideration in municipal planning guidelines. On the one hand, only collective (allotment or shared) gardens are the subject of guidelines where they exist. On the other hand, around half of the guidelines only provide for the preservation of existing areas, and the remainder for an increase in the surface area of vegetable gardens or urban agriculture more generally. The implementation of these guidelines into urban planning regulations is generally reflected in the regulations for natural zones (with rules on the size of sheds) or, more rarely, for agricultural zones, where the presence of allotment gardens is prohibited.



Surveys of gardeners at Roissy Pays de France and Saclay enabled us to build up a corpus of around thirty individuals. Extending the survey area to the Saclay site enabled us to diversify the socio-economic profile of the gardeners. These surveys confirm many of the observations already made on the basis of the practices observed in the collective gardens. In addition to the great diversity of varieties and plot arrangements, they reveal the extension, structure and function of the social network that is created around the individual vegetable garden and its produce, and nuance the figure of the individualist housing estate dweller. These surveys have also made it possible to explore the role of the vegetable garden as a vector of sociability in the neighbourhood (exchanges of plants, produce, knowledge and advice), between gardeners, but also between gardeners and farmers from neighbouring plots.



Figure 2: Vegetable garden in Seine-Saint-Denis (Credit: S. Darly).

2.2 Competition between activities on agricultural land use

Our work has also enabled us to gain a better understanding of the forms of competition between activities on agricultural land use in a metropolitan area (sections 2, 3 and 5).

2.2.1 *An analysis of the implementation of urban planning regulations: how the rules are written and the dynamics of litigation*

We analyzed the land-use planning strategies of rural municipalities in the Ile-de-France region in order to gain a better understanding of the issues concerning urbanization on the region's periphery, which has received little research attention despite the fact that urban sprawl is progressing more rapidly there on average. We analyzed plans to urbanize farmland in a sample of 139 rural municipalities and created an original database of zoning and applicable rules for 266 urban zones. Our research revealed that the majority of rural municipalities studied limit building density by adopting restrictive planning rules in urban zones. This under-use of density potential, particularly in the smallest municipalities, may be a factor that encourages the consumption of agricultural land.

We also carried out a quantitative analysis of an original corpus of 400 appeals for the annulment of urban plan in the Ile-de-France region over a period of 12 years. An analysis of the arguments used by the judges shows that the conversion of agricultural or natural areas into urban



development zones is often legally fragile and is subject to a high rate of annulment. Disproportionate land reserves or an overly imprecise urbanization schedule are sometimes censured by the courts. In this respect, litigation appears to be an important means of regulating the preservation of agricultural land in the region.

In addition, disputes may arise over the urbanization of land that is no longer being farmed. Undeveloped farmland close to areas that could be built on may be the result of landowners calculating the likelihood of the land being converted: undeveloped land is an additional argument for negotiating with elected representatives to change its status, if it is already equipped for urbanization. Landowners' expectations of land conversion in the vicinity of urbanized areas are one of the sources of local conflicts with municipalities. The arguments put forward by landowners are generally aimed at highlighting the capacity of sufficient networks to accommodate construction.

Disputes over agricultural zones may also involve disputes over building possibilities within these zones themselves. In this case, the debate is no longer about the appropriateness of the zoning choice made, but about a more detailed level of decision, which concerns the way in which residual building rights are managed within the internal regulations of the zone.

Some of the requests for building rights relate to farm buildings (sheds, silos, etc.), as well as to the various needs generated by the diversification of production. But these requests also concern agricultural diversification activities other than production. Farming projects that are part of a local farming approach generate requests for building rights as part of the development of agritourism, direct sales or on-farm catering, which go beyond the building permits targeted at traditional farm buildings (linked to the usual needs concerning the storage of produce, equipment or machinery).

On the other hand, disputes concerning agricultural zoning relate to the room for manoeuvre defined by the local urban plan with regard to residential buildings. Farmers often ask for housing close to their farms at local level. It is often perceived as legitimate by farmers because of the constraints associated with their activity, and is sometimes even considered as a right attached to the farm. These demands give rise to conflict and negotiation with elected representatives, and lead to arbitration on derogation procedures for allocating building rights in agricultural areas, where the main aim is to preserve the land.

Farmers' requests for housing generally concern farmers who are close to retirement, enabling them to live on site and thus increase the value of their land in the context of the high cost of housing in the Paris region. These requests are reflected in demands concerning urban plans: to allocate building rights for residential use within the framework of derogation sectors in agricultural zones, either as part of new constructions or as part of the "change of use" of existing buildings.

Taken together, these local practices highlight the pressure exerted on elected representatives in favour of derogatory urban planning, made possible by the considerable leeway offered by the French legal framework. An analysis of appeals concerning agricultural zones shows that, as in the case of urban development zones, conflicts are likely to arise as much over regulatory arbitration within zones as over the zoning decision as such. In rural communities under metropolitan influence, these claims are exacerbated by tensions on the land and housing markets. They explain the development of legal disputes beyond the peri-urban communes, on the rural fringes of the metropolitan area.

2.2.2 *Field surveys of local land tenure arrangements*

We used qualitative methods (semi-structured interviews) to analyze local negotiations and public debate on agricultural land conversions. We have shown that the development of land for



economic activities (particularly logistics, both within and outside the boundaries of the Paris region), local authority landscape or environmental projects (which are sometimes used to block any building development) and the restructuring of agricultural sectors (which can have an impact on urbanization possibilities) are all transformations that significantly shape and constrain the dynamics of urbanization and peri-urban change.

Our field surveys show that changes in land use sometimes take place without any change in zoning. This is the case with many transformations that take place in the agricultural zones of urban plans (farmers' ancillary economic activities, stud farms, farmers' housing sold to non-farmers, etc.). Our research highlights the often progressive nature of these transformations (for example, the case of agricultural land built for farming purposes and then sold on for housing or leisure activities). A transformation that is theoretically prohibited in an urban plan then becomes legally possible if it is carried out in stages over time.

Our work also highlights the diversity and paradoxical nature of local issues concerning the transformation of agricultural land. Municipalities are generally torn between the fear of densification on the one hand, and the desire to renew an ageing population and the injunctions of the State, the Region or inter-municipalities to produce housing on the other: in this context, the urbanization of agricultural land sometimes remains the only conceivable solution. Municipalities and inter-municipal bodies still have limited means of action, with poorly equipped technical services and inter-municipal cooperation that is often limited or conflictual. Small peri-urban communes are like small communities, where interpersonal relationships weigh heavily on the decisions of elected representatives (weight of anti-growth coalitions, close links between farmers and local elected representatives, weight of large landowners, etc.). These changes are taking place against a backdrop of highly unstable urban plans, which are restricting the actions of both private landowners and public players.

Finally, the surveys carried out analyze the dynamics of collective action that regulate the transformation of agricultural land in these areas. We would highlight the importance of land negotiations between local planning authorities, landowners and land developers, often prior to projects or even prior to amendments to urban plans, with informal discussions and oral agreements playing an important role. These stakeholders play with planning regulations: the scope for interpreting the rules is all the greater because a certain amount of flexibility is deliberately left for this purpose in the urban plans, which are also regularly amended. Negotiations take place at the interface between agriculture and urban planning, insofar as agricultural transformations can be used to initiate or block transformations of urban fabrics. In this respect, certain public action measures designed to support local agriculture (agri-urban programmes, actions taken by the regional nature parks, etc.) play a role in controlling the dynamics of urbanization. Finally, our research highlights the perverse effects of urban plans at their borders: the restrictive rules of the Île-de-France Regional Master Plan (SDRIF) on opening up new urban development (requiring all new projects to be built in continuity with the existing development) lead, on the one hand, to conflicts within small Île-de-France inter-municipal bodies over obtaining rights to open up urban development, and, on the other, to a significant postponement of transformations beyond regional borders.

2.3 An analysis of innovations in land governance

Our project has identified and analysed innovations in the governance of agricultural land that are transforming relations between stakeholders in the regions (Parts 1, 2, 4 and 5).

We have carried out research into the emerging territorial food plans in the Ile-de-France region and the way in which they are building new expertise on agricultural land, by mobilizing stakeholders other than those traditionally involved in land management. In peri-urban contexts,



we have analyzed the way in which local authorities are reorganizing their services to take account of agriculture as an activity that produces 'urban services' (recruitment of agents with mixed skill profiles at the interface between agricultural development and urban engineering).

In addition to these reconfigurations of institutional governance, our research has also looked at more informal forms of coordination between local stakeholders. For example, we investigated the exchange of services (free loans of sites) between beekeepers, who are often nomadic, and farmers and garden owners in the inner suburbs. A special focus was placed on the exchange of services (free pitch loans) between beekeepers, who are often nomadic, and garden owners in the inner suburbs. The study identified the opportunities (dense networks of private and communal gardens) and difficulties (competition between beekeepers for sites, need to adapt hive management for safety reasons) encountered by beekeeping in peri-urban areas.

We also studied the practice of garden loans between private individuals, which has been the subject of numerous innovations and which is now providing the framework for new ways of accessing arable urban land in a context of high demand. The study revealed that this long-established practice is being formalized both by associations looking for accessible arable land and by the local authorities that support them.

2.4 Prospects and extensions for other research projects

Our research carried out in Cap IDF on the interfaces between agricultural and urban spaces fed into the submission of the ANR GERTRUD project (GEstion et Régulation Transfrontalières de l'Urbanisation Diffuse, coordination Joël Idt, member of the Cap IDF project), which was accepted by the ANR and started in September 2020. This project is undertaking a comparative analysis of diffuse urbanization processes, and the way in which they are regulated, in five cross-border urban regions in France. Two results from part 3 of Cap IDF served as starting points for this project: the importance of transformations outside the production of housing, and the importance of playing with the rules of planning documents. Cap IDF also provided an opportunity to test the application of frameworks for analyzing organized collective action to the regulation of diffuse urbanization.

Cap IDF's results on domestic production in suburban neighbourhoods (home gardens) have led to exchanges with another PSDR4 project in Ile-de-France, the PSDR4 project.

The "Dynamiques" project, coordinated by Emmanuelle Baudry (Université Paris Saclay, UMR ESE), focuses on the dimensions of urban ecology in suburban areas where there are many interfaces between built and unbuilt areas. Co-directed by Romain Melot and Emmanuelle Baudry, the "TerriBio Saclay" project (Territoire d'interface et biodiversité urbain sur le plateau de Saclay) was selected by the MSH Saclay as part of its call for Excellence projects, which began at the end of 2019 and will run until the end of 2021. This project is based in particular on the methodology for collecting cartographic data developed in Cap IDF, consolidated by analyses of the socio-economic profile of the areas surveyed.

3. Research in partnership with stakeholders in the agricultural land tenure system

Our partnership-based research strategy has targeted a range of actions co-designed by researchers and stakeholders to promote the territorial impact of the project: proposals for innovative collaborative mapping methods, diagnoses of agricultural diversification trajectories and the redevelopment of rural buildings in towns and hamlets, territorial foresight workshops and analyses of the peri-urban agricultural land market.

We would like to take this opportunity to present two of our development initiatives, which we



believe make a significant contribution to regional development. These initiatives have been fuelled by the results of the project and have been designed in collaboration with academic and local partners.

3.1 Collaborative land mapping" specifications to support local agriculture

The development of the geoweb and the advent of Web 2.0 have facilitated the emergence of tools that combine collaborative work and the search for user-friendliness for the general public, in the service of a shared understanding of the region. The objective of the Cap IDF project is to examine the feasibility of a collaborative mapping tool for "land trails for local agricultural projects" in the Ile-de-France region. The intended deliverable is not a turnkey tool (which is beyond the project's resources), but a set of technical specifications, the details of which were discussed by all Cap IDF participants. A first version of this deliverable was produced in 2018 ("Guide to developing a participatory mapping server") and a finalized version was drafted in 2020.

The aim of collaborative mapping is to give local stakeholders the opportunity to signal initiatives or land opportunities on a shared web platform, prior to sales projects. Thanks to the work carried out on the specifications, we were able to identify the various levers and constraints of the tool: data to be integrated in compliance with regulations on the protection of personal data, degree of openness of the interface to local users (local authority correspondents, operators, owners and residents), IT maintenance methods. As well as simply sharing information, the aim of collaborative mapping is to enable citizens and those involved in setting up in farming to discuss the same map, in order to improve land monitoring and support for those setting up in farming. The map is designed as a joint working document that acts as an interface between the players, who provide each other with information about their area.

Although Terre de liens is our partner of reference for this action, the specifications aim to propose functionalities that go beyond the framework of the association's network and are open to the participation of local players from a variety of backgrounds (local authorities, SAFER, regional natural park, local associations, etc.). This is demonstrated by the workshops organized by Terre de liens to discuss the terms of reference, bringing together groups and institutions as varied as the regional State services (DRIEE), the water agency, the AbioSol network, the Essonne department, the Ile-de-France rural network and several local authorities.

3.2 A "2050 Scenarios for Interface Territories" project workshop

The results of sections 3 and 4 were used to prepare the terms of reference for a project workshop focusing on prospective scenarios for the development of interfaces between agricultural areas and built-up land on urban fringes. Two types of situation in particular were identified: agricultural areas around urban centres in the Paris region and domestic gardens within urban areas.

In this context, the UMR AUSSER (scientific correspondent: Béatrice Mariolle) proposed to examine the possible links between research and projects by organizing a workshop for young planning professionals (architects, landscape architects, agronomists). The project workshop is designed as a method of dialogue between the research partners (researchers, representatives from the Ile-de-France region, and from the Roissy-Pays-de-France inter-municipal body).

A number of thematically-related sites were chosen in partnership with the Roissy Pays de France inter-municipal body (Villiers-le-Bel: garden/farm plot interface projects on the edge of collective housing; Fosse: gardens in suburban neighbourhoods; Fontenay-en-Parisis and Mitry-Mory: interface between farmland and urban development in two municipalities of very different

size and spatial organisation; Gonesse, La Fauconnière site, urban renewal site on the edge of farmland). In-depth work was carried out in the municipality of Villiers-le-Bel. A presentation of the study carried out by the team of young professionals was organized in January 2021 at the Maison de l'environnement of the Roissy Porte de France and in June 2021 at the Campus Condorcet.

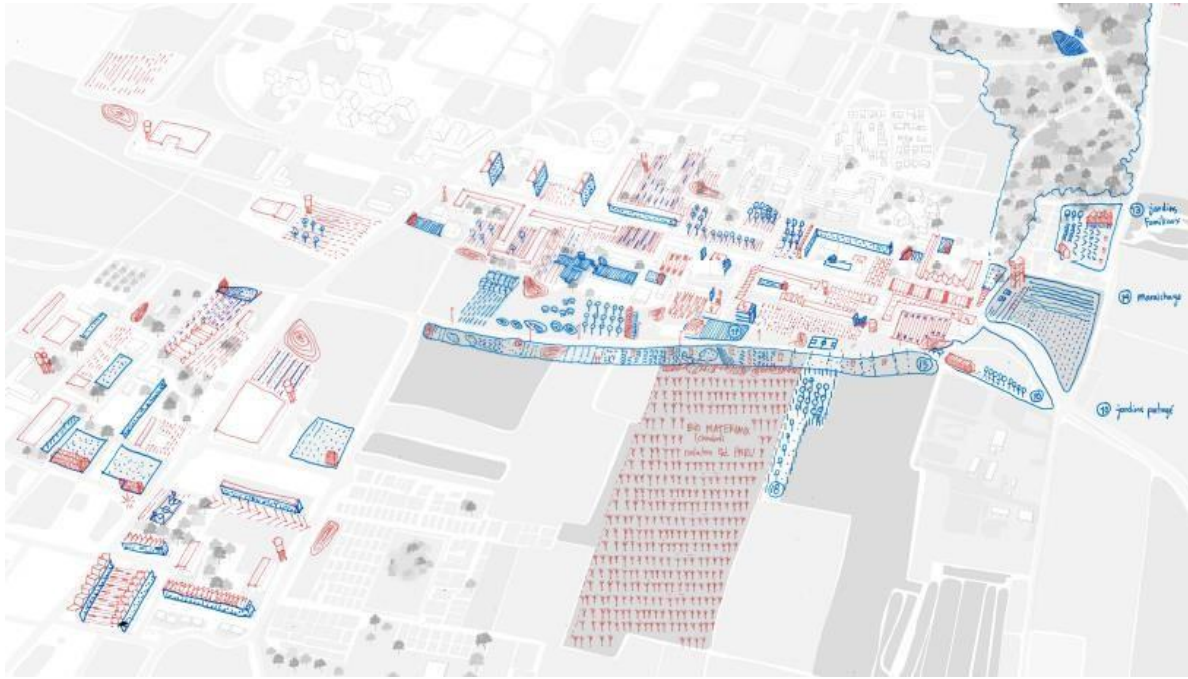


Figure 3: Prospective study of the interface between farmland and built-up areas in Villiers-le-Bel (93) by OpenEnds Architectes (Extract from the final project report, June 2021).

3.3 Prospects and extension of the project

For the researchers involved in the project, the co-construction of the research with the territorial partners has enabled stimulating reflection on the design of the surveys and the choice of sites. In addition to the organizational benefits of the support provided by the local partners, it has also stimulated interdisciplinary work on common issues in these fields (between sociologists, economists and geographers, for example).

For our territorial partners, the PSDR project was an opportunity to gain access to resources (human, network of players) that enabled them to explore new avenues of reflection. For those most involved, the project was an opportunity to carry out a large-scale project that was already in the pipeline within the organization (collaborative mapping), but which was triggered by Cap IDF, and which is being extended through inter-regional collaboration between INRAE units on other collaborative mapping projects (in particular as part of the RECOLTE project - Recueil d'Expériences Collectives et Territoriales pour la préservation des terres et l'accès au foncier agricole), developed at the UMR Innovations.

Within the framework of the partnership approach specific to PSDR4 projects, researchers have taken their place within this network. In particular, they have been able to act as intermediaries, or even mediators, between operators who are sometimes competitors in terms of territorial land expertise. The relationships established between stakeholders and researchers around a shared project have made it possible to provide forums for dialogue that have created a common culture within the consortium between academic and territorial partners.



4. Conclusion

Over and above the theoretical results, the work carried out as part of Cap IDF has raised awareness among the 'traditional' institutions to renew the network of stakeholders involved in the management of cultivated land in the current context of the relocation of food production.

This project, through its partnerships, will have revealed 1° the emergence of new stakeholder logics (arable farms as actors of diversification and the dynamism of domestic production in peri-urban garden areas), 2° the diversity of forms of regulation (regulatory implementation, litigation), but also 3° innovations in land governance (collaborative mapping, new owner-gardener arrangements, etc.).

All our activities have, of course, encouraged stimulating exchanges between academic and local partners within the project. But much more than that, they have led to a comparison of points of view and the emergence of original partnerships. As mentioned above, the collaborative mapping project gave rise to a number of local meetings in the Ile-de-France region with local bodies from a variety of backgrounds. The research led to discussions between the regional nature parks, SAFER and the Chamber of Trades on the multifunctionality of rural buildings, combining agricultural and craft uses. Finally, the preparation of the architecture-urban planning project workshop provided an opportunity to initiate exchanges between the local authorities concerned and to consider multi-disciplinary forms of diagnosis (involving architects, landscape architects and agronomists). Thanks to the dissemination of the results, this awareness-raising process has also reached out to regional development stakeholders beyond the initial team of partners (such as Institut Paris Région). This project has thus revealed both the importance and the limits of land governance as a means of supporting local agriculture.

Ethics

The authors declare that the experiments were carried out in compliance with the applicable national regulations.

Declaration on the availability of data and models

The data supporting the results presented in this article are available on request from the author of the article.

Declaration on Generative Artificial Intelligence and Artificial Intelligence Assisted Technologies in the Drafting Process.

The authors used artificial intelligence for the English translation.

Declaration of interest

The authors declare that they do not work for, advise, own shares in, or receive funds from any organisation that could benefit from this article, and declare no affiliation other than those listed at the beginning of the article.

Acknowledgements

The studies presented in this article received financial support from the 4th PSDR programme (INRAE, Region) as part of the "Cap IDF" project.

All the of publications relating to the 33 projects in the programme PSDR4 can be consulted at: <https://www.psdr.fr/>

References

Aubry C., Kebir L., Pasquier C. 2012. Le raccourcissement des circuits alimentaires : une nouvelle ruralité en périphérie des villes ? (étude de cas en Ile-de-France). In Papy F., Mathieu N. et Féral C. (dir.), Nouveaux rapports à la nature dans les campagnes, Quae, Paris.

Bertrand N. (dir.), 2013. Terres agricoles périurbaines. Une gouvernance foncière en construction, Paris, Quae.



Billen G., Barles S., Chatzimpiros P., Garnier J., 2012. Grain, meat and vegetables to feed Paris: where did and do they come from? Localising Paris food supply areas from the eighteenth to the twenty-first century. *Regional Environmental Change*, n°12, 325-335.

Bryant C., 1991. *Agriculture in the City's countryside*, John Wiley & Sons Ltd, 230 pp.

Cavailhes J., Wavresky P., 2006. Les effets de la proximité de la ville sur les systèmes de production agricoles. *Agreste Cahiers*, n°2, 41-47.

Chiffolleau Y., Prevost B., 2012. Les circuits courts, des innovations sociales pour une alimentation durable dans les territoires. *Noroi* [Online], 224 | 2012, online since 30 September 2014, URL : <http://noroi.revues.org/4245> ; DOI : 10.4000/noroi.4245

Delattre L., Chanel O., Napoleone C., 2012. How to model local determinants of preservation of non-artificialized spaces in France? L'apport d'une confrontation littérature-terrain. *Revue d'économie régionale et urbaine*, n°5, 805-829.

Darly S., Temple-Boyer E., Sourzac A., et al., 2021. Nouveaux arrangements fonciers pour citoyens sans terre : émergence d'acteurs intermédiaires dans la relation propriété-usage des jardins privés de la métropole. *Geography, Economy, Society*, 2021/4 (Vol. 23), pp. 367-386. DOI : 10.3166/ges.2021.0019. URL: <https://www.cairn.info/revue-geographie-economie-societe-2021-4- page-36>

Darly, S., Feuillet T., Laforêt C., 2021. Home Gardening and the Social Divide of Suburban Space: Methodological Proposal for the Spatial Analysis of a Social Practice in the Greater Paris Urban Area. *Sustainability* 13, no. 6: 3243. <https://doi.org/10.3390/su13063243>

Darly S., 2018. La terre pavillonnaire, un paysage fertile oublié, in Léger J.-F. and Mariolle B. (dir.) *Densifier/Dédensifier les campagnes urbaines*, Editions Parenthèses.

Fortier A., Alphandéry P., Agnès C., 2020. Butiner la ville? Plurality and renewal of urban beekeeping in Ile-de-France. *Etudes rurales*, 206, 68-88. <https://doi.org/10.4000/etudesrurales.23583>

Géniaux G., Napoléone C., 2005. Rente foncière et anticipations dans le périurbain. *Economie et Prévision*, vol. 168, n°2, 77-95.

Guillot L., Blatrix C., 2021. Alimentation, État et territoires. Diffusion et reconnaissance des Projets Alimentaires Territoriaux en France (2014-2021). *Geography, Economy, Society*, 2021/4 (Vol. 23), pp. 437-459. DOI : 10.3166/ges.2021.0017. URL: <https://www.cairn.info/revue-geographie-economie- societe-2021-4-page-437.htm>

Hochedez C., Le Gall J., 2011. North and South facing crises. De nouveaux réseaux maraîchers métropolitains au service d'une agriculture de proximité : les cas de Buenos Aires et Stockholm. *Noroi* [Online], 221 | 2011, online 30 December 2013, URL: <http://noroi.revues.org/3766> ; DOI: 10.4000/ noroi.3766

Idt J., 2021. La régulation des transformations de l'usage du foncier agricole aux interfaces entre urbain et rural. Le cas des franges de l'Île-de-France. *Géographie, économie, société*, 2021/4 (Vol. 23), p. 413-

436. DOI: 10.3166/ges.2021.0010. URL: <https://www.cairn.info/revue-geographie-economie-societe- 2021-4-page-413.htm>

Ilbery B., Morris C., Buller H., Maye D., Kneafsey K., 2005. Product, Process and Place, *European Urban and Regional Studies*, n°12, vol. 2, 116-132.

Inwood S., Sharp J., 2012. Farm Persistence and Adaptation at the Rural-Urban Interface: Succession and Farm Adjustment, *Journal of Rural Studies*, no. 28, vol. 1, 107-117.

Lavigne Delville P., Durand-Lasserve A., 2009. Gouvernance foncière et sécurisation des droits dans les pays du Sud, *Livre blanc des acteurs français de la Coopération*, Comité technique Foncier et Développement.

Le Bivic C., Melot R., 2020. Scheduling urbanization in rural municipalities: local practices in land-use planning on the fringes of the Paris region, *Land Use Policy*, 99, <https://doi.org/10.1016/j.landusepol.2020.105040>



Le Bivic C., Pépin F., Kirat T., Melot R., 2021. La planification des espaces ruraux et périurbains à l'épreuve des contestations : une perspective sociologique sur les pratiques de recours en Île-de-France. *Géographie, économie, société*, 2021/4 (Vol. 23), p. 387-411. DOI : 10.3166/ges.2021.0012. URL : <https://www.cairn.info/revue-geographie-economie-societe-2021-4-p>

Morgan K., Marsden T., Murdoch J., 2006. *Worlds of food. Place, Power and Provenance in the Food Chain*, Oxford University Press, 225 p.

Mori H., 1998. Land conversion at the urban fringe: a comparative study of Japan, Britain and the Netherlands, *Urban Studies*, vol. 35, 1541-1558.

Perrin C., 2013. Regulation of Farmland Conversion on the Urban Fringe: From Land-Use Planning to Food Strategies. Insight into Two Case Studies in Provence and Tuscany. *International Planning Studies*, vol. 18, n°1, 21-36.

Pothukuchi K., 2009. Community and Regional Food Planning: Building Institutional Support in the United States. *International Planning Studies*, n°14, vol. 4, 349-367.

Sonnino R., 2009. Feeding the City: Towards a New Research and Planning Agenda, *International Planning Studies*, n°14, vol. 4, 425-435.

Torre A., Traversac J., Darly S., Melot R., 2013. Paris, an agricultural metropolis? Quelles productions agricoles pour quels modes d'occupation des sols. *Revue d'Économie Régionale et Urbaine*, vol.3, 561- 593.

Zasada I., 2011. Multifunctional Peri-Urban Agriculture. A Review of Societal Demands and the Provision of Goods and Services by Farming. *Land Use Policy*, n°28, vol. 4, 639-648.



This article is published under the Creative Commons licence (CC BY-NC-ND 4.0) <https://creativecommons.org/licenses/by-nc-nd/4.0/>

When citing or reproducing this article, please include the title of the article, the names of all the authors, mention of its publication in the journal *Innovations Agronomiques* and its DOI, and the date of publication.