

Multifunctionality : realities and local stakes construction¹

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Abstract

The multifunctionality of agriculture struggles to establish itself as a systemic conciliation and evaluation framework of the relationships between the agricultural sector and expectations of the surroundings society towards it. One possible starting point to conceive these relationships as progressively harmonic might be the land on which they are taking place, the territory, rather than one of its functions: the agricultural production. Bringing into play this type of approach requires the creation of negotiation conditions that will allow actors to find solutions that could not having been brought separately neither by scientific approaches nor by general national agricultural policies. How can we build horizontal partnerships involving various categories of local actors around the construction of collective common goods –such as landscape preservation, water management or the contribution of hunting to land management ? We tackled this question via three French case studies that combine organic agriculture and collective management (non-individually run farms) and have different territorial contributions. Our objective is to understand how multifunctionality builds itself as a local stake.

Keywords : Multifunctionality, territorial partnerships, organic farming, collectively managed farms

Introduction

The multifunctionality of agriculture is a growing global stake in both agricultural debates and international negotiations, and a growing scientific research activity as testified by the number of recent publications and conferences on the subject. Despite this newly acquired importance, multifunctionality struggles to establish itself as a systemic conciliation and evaluation framework of the relationships between the agricultural sector and the surroundings society's expectations towards it. Moreover, although anyone has a relatively accurate view of what the concept means, we still poorly understand *how multifunctionality is building itself at the local level*.

Is multifunctionality an important local stake in some areas? If so, how did it emerge, involving which actors and with what results for the farmers and the other actors concerned? Can the study of the interactions of the farm with its economic, environmental and institutional environment be a step towards a better understanding of the local implementation of multifunctionality? How do the different farming systems and strategies chosen by the farms influence their ability to be “multifunctional»?

Starting points to address these questions and to conceive the relationships between agriculture and local communities are numerous. A possible starting point to consider is the

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functions of the agriculture. Classical approach in agrarian studies, it seems to us that it does not really address the stake of multifunctionality. Conversely, we suggest to look at the multifunctionality stakes from the land on which they are taking place, the territory, rather than one of its functions: agricultural production. Our starting point is thus the territory and more specifically, the articulation between the agricultural production and the territory.

We tackled this question via three French case studies (see Fig 1) that fit two criteria: first, the practice of organic agriculture and secondly, collective management (non-individually run farms). These two criteria are being taken as initial resources for the farms that are offered either by legal frameworks (organic set of standards, laws enabling agricultural partnership schemes) or built by humans. The originality of this work is the study of the influence of these two resources on the way the farms interact with their surrounding territory and actors. In order to do that, the interfaces of each farm with economic, environmental or institutional actors (such as rural districts, environment conservation agencies, co-operative of consumers or a high-quality organic brand and food chain) have been studied for their operation modes, their importance for the strategy of the farm or their use of intermediary objects.

The first case shows us how the socio-economical dynamic of the building of a quality product leads to a food chain logic where few to no room is left for territorial relationship. We will see how this development is linked to various elements (type of product in the dairy sector, historic dimension of the organic conversion etc) and how it lead to a large collective farm. At the opposite the second case has a much less socio-economic dimension : the organic conversion is implemented in the wider frame of sustainable development, in the wakes of the Earth Summit (Rio, 1992). The farm is owned by a Swiss-French foundation "Charles Meyer". The two characteristics (organic agriculture and collective management) lead to emerging issues such as water management and to an original co-operation with non-agricultural actors around hunting and meat commercialisation issues. The third case go still one step further in the integration of the multiple functions of the territory in the development of a collective farm. In this case, organic conversion and collective dimension will be the consequence rather than the origin but the most relevant result will be a long-term and strong co-operation between a group of farmers and their municipalities where an extended partnership around multifunctionality of the territory will become the core of the co-operation.

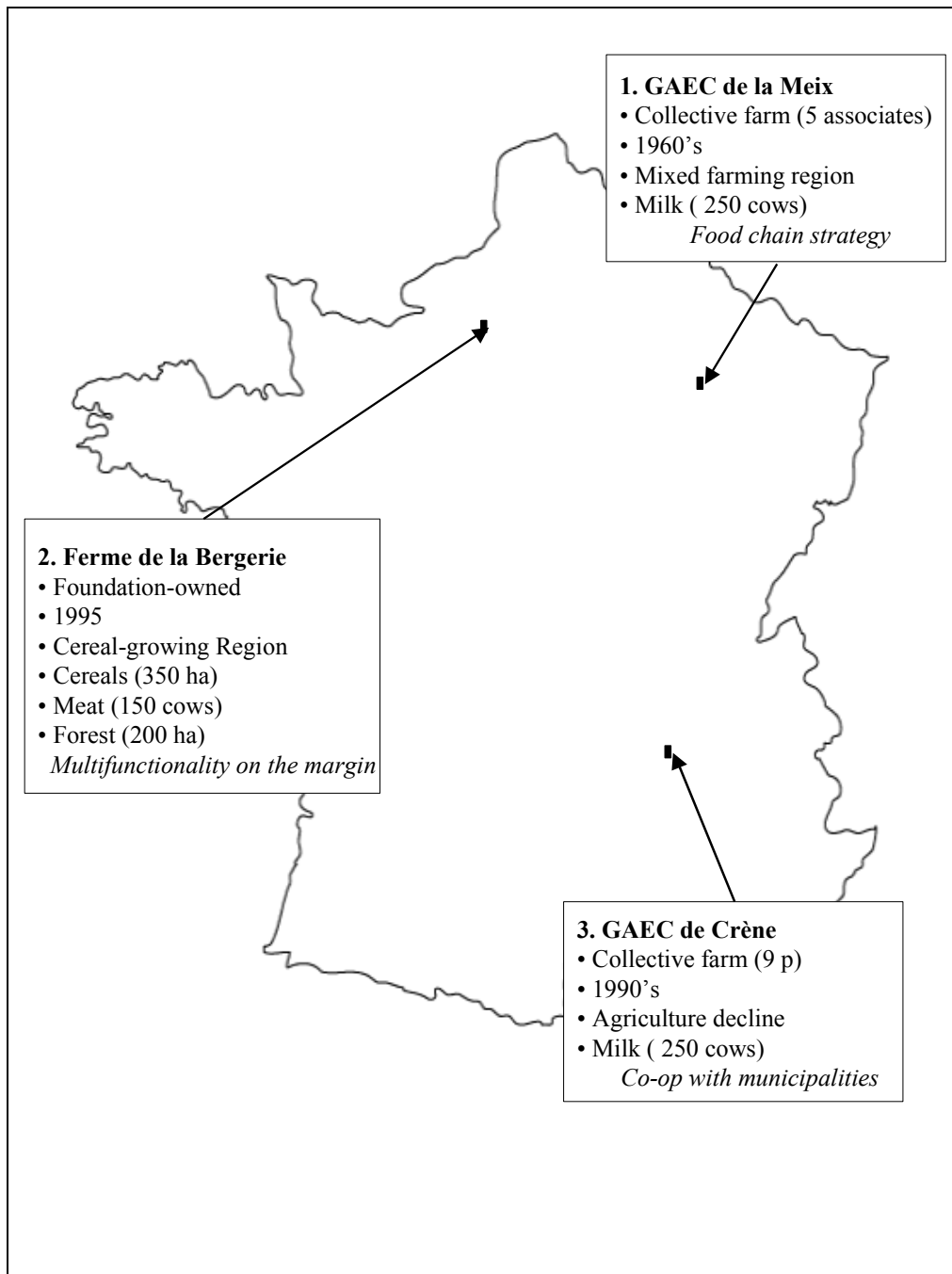


Figure 1 : The three French case studies (combining organic farming and collective management) : The GAEC de la Meix (Lorraine), The Ferme de la Bergerie (Bassin parisien) and the GAEC de Crène (Savoie)

1. Food chains strategies

The GAEC (Groupement agricole d'exploitation en commun) de la Meix is a large organic dairy farm located in northeastern France. The farm is run by five associated farmers who make their living out of a 130 dairy cows herd grazing and feeding on 200 hectares. The origin of the farm is the collaboration, thirty years ago, of two farmers whose main objective was a peasant farming project combining quality of life and work and the upholding of peasants in rural areas. The GAEC structure they chose for their project is a particular juridical French agricultural structure that allow both farm labour and capital to be collectively managed by associates. This structure gives a efficient solution to the problem of farmer capital needs during its settling and eases the transmission of the farm to new associates.

The farm initially extended itself on forty hectares of grasslands and crops in a region characterised by the "maize-ensilage", an intensive system of stock farming and polyculture. Their initial project will lead the farmers one the one hand to the practice of organic farming and on the other hand to the progressive building of food chains that value best their differentiated production.

Organic practices will indeed fit the initial project because of their proximity with the strategy of autonomy (soil fertility, animal feed...) and quality. The weak demand for organic products in the region makes an initial detail sale of milk and dairy products impossible, even with a cheese production shop. It was thus necessary to involve themselves in the building of new food chains for the economic viability of the collective farm employing two then four and finally five associates, at the pace of new acquisitions of land. Doing so, the GAEC de la Meix has been at the origin of the creation of a complete organic dairy products chain involving the GAEC, a cheese factory -La Fromagerie de la Meix- and a commercial society and brandname, Biogam. The fact that Biogam is the only buyer of the whole production of the Fromagerie de la Meix influence the strategies of this last one. Instead of the rational and efficient production of one or two class of products (such as soft cheese or yoghurts), it has to produce a large range of products (six class, forty different of products) in order to meet the needs of Biogam.

A specific aspect of the food chain is a direct and material link between the GAEC and the cheese dairy, a milk pipeline connecting the milking room to the cheese dairy. This allows the cheese dairy to sell its products to new markets :

- a) It fulfils the requirement of full follow-up of the products as required by certain distribution companies. These close links associated with the organic quality of their products indeed allow the sale of the products at the national and even international level.
- b) The positioning of Biogam on the high-quality market incite the Fromagerie de la Meix to produce quality soft cheese such as Munster, a cheese under the regime of the protected denomination of origin (PDO)².
- c) The material and human links between the GAEC and the cheese dairy allow the various cheeses produced to meet the standards for the qualification "fermière"³. This enables Biogam to valorise organic milk in "fermier" cheeses when the demand for organic products is not sufficient to absorb the large production of milk of the farm,.

² =Appellation d'origine Contrôlée

³ Farmer products (produits fermiers) are, in France, protected by a labelling system. They have to be produced in the farm itself or a closely-binded economic structure controlled by the farmers, among other specifications.

Innovation within the farm were often market driven. For instance, the cheesemaker strongly advised the GAEC to stop ensilage of grass so he could produce its Munster cheese. Ensilaged cows produce milk with a higher content in butyric acid, a substance causing air holes in cheese but Munster cannot have holes. The GAEC thus turned to the use of ventilated hay. The ability to produce crude-milk cheese, even if not commercially important, contributes to the positive image of the brandname.

Organic quality, food chains logic and local stakes

While driven-market quality has thus been the life-long main concern of the GAEC and the philosophy of the many choices and developments made, one of the key associates of the GAEC faces another quality problem. He is also the local mayor and is concerned by a problem of drinking water quality, a concern in the area since new stricter national standards apply and influence municipal budgets.

It is noteworthy that the mayor and GAEC associate never made any link between his two main activities : the management of the village and his agricultural activity, although he would talk forever about the quality of its products or farming methods. The presence of two intensive pig rearing farms or his general knowledge of the influence of agriculture on underground waters quality were though rightful opportunities for him to do so. Our guess is that the deep involvement of the GAEC in the creation of organic food chains to increase the value of its products has lead itself to be more food chain-oriented than closely concerned with the local various conflicts of the territory. The GAEC de la Meix is oriented by the cheese dairy, which is itself directed by Biogam's strategy to commercialise regional organic products. The relevant territory, if there should be one, would thus having been the region of Lorraine but, at this level, there is no sufficient relationship between milk production and water, for example, to affect the mayor's discourse. The farm's partners are the economic actors of the food chain (vertical partnerships) and not the local actors (that could be involved in horizontal partnerships), at the exception of the community of municipalities, interested in an educational project for children and adults, "La Route du Lait". Cereals, the second products of the farm, are also at the origin of another organic food chain stimulated by the GAEC. Probiolor, a cereal co-operative of fifty producers, region-oriented, promotes local varieties of cereals and works with local mills. The flour produced is neither promoted for its link with water quality.

Organic milk connections

How do our two initial resources, organic farming and collective management, influence the farm? Organic farming has lead to differentiated products and to sales on distant markets since organic standards have been nationally and internationally recognised. The GAEC also mobilised other collective resources for the differentiation of its products, such as PDOs or "fermier" denomination to widen its range and develop sales on distant markets. Collective management contributed to allow associates a more flexible work organisation that was essential for an human involvement of certain associates in the cheese dairy or the commercial society.

This study case enlightens the influence of the farm's involvement in food chains on their own strategies but does not raise the issue of the implementation of new relationships at the territorial level. Quality food chains may incite farms to adopt sustainable practices but multifunctionality may require more than that in some places. Conversely, the next farm studied is truly committed to the progressive building of an agriculture in link with its territory. Opportunities and limits of this privately funded initiative will be discussed.

2. Multifunctionality built on the margin

Our second case is out of the normal economic constraints like most independent farms and, as such, is almost an artificial case but it will allow us to follow the emergence of local stakes. In our first case, water did not exist as a public problem in the sense that it did not mobilised much public concern and debates. Here, it does and will allow us to set the question of the legitimacy of local co-operations.

The “Ferme de la Bergerie” is an agricultural domain of 350 hectares located in the intensive agricultural region of Val d’Oise, close to the capital town of Paris. It is owned by an important French-Swiss foundation⁴ whose objective since 1995 has been to implement the guidelines of sustainable development on its domain and, consequently, reasoning the domain management in terms of agricultural production as well as in terms of rurality. Sustainability is thus a real concern for the three farm managers and several employees.

Emergence of a local stake

The local municipality on which the farm is located has been facing for a few years a problem of water pollution by nitrates and atrazine. Some municipal water wells have been closed because of exceeding nitrates norms, warnings for water consumption by pregnant women or children have been printed on the municipal buildings and water bottles have even replaced tap water in the local school refectory. The problem is at its peak during the summer months were water levels are low.

During the last winter, the mayor has convened a meeting around this water problem, gathering more specifically various stakeholders of a small water well situated nearby the Ferme de la Bergerie, supplying water to the farm and a hamlet, both not connected to the water distribution system. The mayor’s intention was to pump more water in the well whose pollution levels were very low and connect it to the municipal water system in order to mix the water of the various wells and consequently lower the total amount of nitrates and atrazine. This approach would solve the whole problem. He was thus looking for support from the Bergerie’s managers although he didn’t really needed it, the well being the property of the Region. The foundation’s delegates were themselves open to this project and accepted that a feasibility study be ordered to a consultant. Their intent in the case of the operation’s success was to impose to the municipality a communication plan to the local population. If the municipality had to pump water under organically cultivated lands because the other wells had been polluted by intensive use of chemicals, it had to be widely publicised.

Legitimacy issues

The consultancy is on its way but it is quite certain that the communication plan about the influence of agricultural activities on water quality will not be launched. The situation is controversial between the Bergerie and the mayor, who is himself a conventional cereal farmer, owning a 200-hectares intensive exploitation. Being a conventional farmer, he feels attacked by the media attention on agricultural pollutions and the presence of an organic farm on his commune brings conflicts of identities to the surface. As a mayor, he avoids handling himself the water problem by hiring a geologist consultant to put forward a solution : he would then only have to choose the cheapest possible solution on technical

⁴ Fondation Charles-Léopold Meyer pour le Progrès de l’Homme (FPH)

grounds. On the other side, the Bergerie has little chance to promote the advantages of organic agriculture: being “wage earners from a Swiss foundation” around independent, conventional farmers in an intensive cereal-growing region, they have no legitimacy to be involved in any public partnership around the interaction between water and agriculture. Besides, the quality of the well site under the Bergerie’s land might not be linked to organic practices: the two hundreds hectares of forested lands also part of the Bergerie’s domain might have a great importance and the conversion to organic might also be too recent to have any effect on the water present quality.

Missed mediation opportunities

Water quality has thus not been built by the municipality as a local stake: it is only being managed as a constraint (complying to national water norms by the cheapest means). The presence of efficient mediation places that could ease the confrontation between farmers and water stakeholders -such as water consumers, water-using companies, water treatment stations- might having been able to allow actors to negotiate and implement local solutions. But there are not such places here. The Natural Regional Park, le Parc Naturel Regional du Vexin⁵ would tough have the legitimacy to be that mediation place but does not fulfill this task. The origin of this lost opportunity for the Park is its own institutional organisation that is completely controlled by the seven mayors of the communes on which the Park extend itself, most of them being professionals in the agriculture sector: farmers or even pesticides dealers. The Bergerie’s attempts for deeper co-operations with them faced the Park’s direction wall even if the Park’s staff was quite interested to see the Bergerie as a laboratory for agricultural innovations that could later interest neighbouring farmers.

No horizontal partnerships have been possible yet with local institutions or with neighbouring farmers concerning the cereals -or the closely linked water issue- tough they are the main economic production of both the farm and this region of the Parisian Basin. The unique link between the farm and the conventional agricultural sector was its membership to the local co-operative of conventional cereal growers (Seine Cereals). It has been broken when the Bergerie joined an organic cereal co-operative.

Second local stake : emergence of the multifunctionality at the margin

While the water pollution stays an unsolved problem, the Bergerie has been able to initiate a successful local co-operation on another local problem of the territory: hunting and land management on the domain.

In 1998, the farm managers face the renewal of the hunting lease of the domain. Until then, the lease was accorded to a local restaurant manager who organised hunting parties for groups. While the lease price was high, the way these “commercial” shootings were conducted was problematic. The release of reared pheasants, the imbalance of game populations such as decimated partridges populations and demographic explosion of rabbits ravaging the crops were the main problems. Overall, the disrespectful attitude of the hunters towards neighbours and walkers was critical: security of the persons was not insured on the property.

Renewing the same lease would thus have been in contradiction with the foundation’s objectives of sustainability and openness of the domain but hunting was essential to both

⁵ In France, regional natural parks intervene in the agriculture sector with measures such as agri-environmental schemes or subventions to diversification and in the agri-food sector with a labelling policy allowing local food transformation places to call for the Park’s label in certain conditions.

crop management and finances. This necessity of hunting and the long-term perspective of the foundation's involvement in the region lead the farm managers to look for a new type of hunting lease: a "*sustainable hunting contract*". They assigned one major objective to this new contract project: "*dealing with a group of hunters with whom we can discuss and negotiate softer hunting practices*".

Competences-assembling for problem-solving

Being poorly competent in game management, the farm managers -three agricultural engineers- found, among their relationships, persons able to help them implement this idea. The right person is a professional from the Forest Service⁶, a friend of one of the member of a scientific group previously created by the Bergerie to evaluate its own progress. This person then leads them to other professionals (from the district hunting federation, the district forest service) and all of them will be invited to a meeting during which the Bergerie's managers collect advice for the sustainable hunting contract guidelines.

The contract is thus drafted and then diffused to interested parties by the means of the organisations enrolled in the drafting process. Four different groups are candidate for the hunting lease, which is finally accorded to a local group gathering persons from the nearby villages and which were used to hunt together for years. For the farm managers, they seem to be the best persons to engage with on this new project of sustainable hunting. First, they are locals: they will have an advantage to control poaching on the domain. Secondly, they are open to discussion about the general objectives of the lease agreement.

How to frame the co-operation?

The contract is signed during the summer of 1998 although the signature does not freeze the contract's guidelines for the full duration of the contract. The Bergerie has made no changes between the initial version of the lease even though the hunting group suggested interesting changes. Actually, the lease is not negotiated in its written form: the signature is more a formal engagement to the common goal of sustainable game management to which both parties are dedicated. Four hunting seasons have passed since then and while new events have pushed the partners to innovate with respect to the initial agreement, none of the parties went back reading the lease's guidelines and standards.

Since 1998, three innovations have effectively been possible thanks to the fact that the contract was written and considered as a set of guidelines and a general agreement on a common reference horizon rather than like a set of specifications, type "*articles and conditions*". First, the hunters plant every year a one-kilometre long quickest hedgerow. This was not in the lease and the idea comes from the farm managers: hedgerows will improve the integrated pest management essential to organic crops. In return, they also favour game such as deer because they create a more viable environment for them in the open areas. The annual hedgerows planting day becomes a tradition and an opportunity for both parties to meet around a common meal. The solution is, of course, economically interesting for the farm management since the labour is cost-free and the tree seedlings subsidised by the Region - an opportunity advised once again by a professional from the district hunting federation. Secondly, the hunters agreed to help the farm managers to face another problem: a high population of crows that caused serious damages to crops (several hectares of untreated seeds have been damaged by the corvidae and needed a second sowing). The lease only specified *the maintenance of vermin at reasonable levels*, a guideline that did not required the hunters to install cages to attract and catch the crows, what they did.

⁶ Office National des Forêts

One could say the Bergerie's managers have a controlling situation since they are the owners of the domain but the third example weakens the importance of that assumption. The lease specifies in its guidelines the *development of under-populated species (hares, partridges, quails)* but this could be implemented very differently depending on the interpretations of both parties. Here, the guidelines encourages the hunters to stick to the objective instead of applying detailed constraints: they will then decide by themselves to contact the district hunting federation in order to ask census for these species. Freely, they will follow the advice received from the federation even if the lease did not required them to do so.

Reasons for the co-operation's successes or failures

From these two examples of interactions around the Bergerie, we may draw two provisional conclusions.

- (1) The actors can only involve in partnerships for which they have enough legitimacy. Partnerships with conventional cereal growers or with local institutions they influence such as municipalities or natural regional parks are illegitimate because the cereals growers have no intention to engage with what they call "wage earners from a Swiss foundation" which are, moreover, promoting organic farming in a sector where the differences of identities between conventional and organic farmers are pronounced. Conversely, The Bergerie wage earners are legitimate for territory management: the fact that they are from a foundation is not a barrier to the creation of an elaborate partnership with local hunters.
- (2) Successful co-operations may require new knowledges or competencies that none of the involved partners possess. Looking for the advice of competent professionals in order to improve a well-thought out project is totally different from the easier solution of devolving the problem-solving process to a consultant. The presence of mediators (institutions) also helps both the creation of partnerships and their day-to-day management such as the wild populations' census example showed us.
- (3) The hunting co-operation shows that intermediary objects such as contracts are necessary to give a strong framework to the co-operation. Unplanned events were best resolved with flexible contracts.

Organic conversion and meat connections

While the sustainable hunting contract is a successful co-operation built by the Bergerie, their greatest accomplishment concerns meat and relationships with consumers.

At the moment of the domain conversion to organic farming, the Bergerie's managers faced the problem of the non-mineral fertilisation of a large domain. The 350 hectares of cultures would indeed need more organic matter to remain fertile than the small remaining sheep herd could produce. A large cow herd has thus been brought on the domain mainly in order to produce enough manure for the cereal crops, the economically important production. The choice of organic farming and the general sustainability objective lead to the choice of the breed Salers, a rustic French breed. The great marketing image that this breed has on consumers encouraged the farm managers to valorise the meat of their cows, when the environment of beef production is deeply in crisis. Organising a direct sale of meat to the sympathisers of the Bergerie was not only a good commercial opportunity but another way to connect the agricultural activity to the interest of various consumers: urban consumers worrying about the meat quality, local persons looking for quality and budget meat,... In consequence, the need for manure imposed by the organic conversion of the large cereal

production surface led the Bergerie to increase its herd and create a consumer's co-operative gathering 150 member families after two years of existence.

Organic farming and collective management were both critical for the Bergerie. Organic farming brought new connections of different kinds: first, soil fertility-product-consumers connections such as the manure-cows-meat-co-operative connection showed us and secondly, agriculture-territory connections such as the crops-crows-hunters example illustrates. Organic farming also provoked the breaking of the only link between the Bergerie and conventional farmers (their membership in Seine-cereals, the cereal co-operative). Organic farmers may thus in some case be pushed to move away from the neighbouring farmers and the local institutions (the co-operative was the only way to meet conventional cereal growers that are also the local mayors).

Collective management, in the case of the Bergerie, may be interpreted in two views. First, the "close" collective management (the farm's staff) allowed two managers to put a lot of energy in the co-op building phase, which in return will give to the farm better prices for the meat than the normal markets would do. Secondly, the collective management of the Bergerie might be taken larger, encompassing the whole foundation's network and relationships that helped at two stages: new consumers for the co-op but also access to the various persons in different sectors such as the right person to be in contact with for hunting and land management.

While this second case opened us to the opportunities and limits of a foundation-backed initiative towards sustainable relationships between the agriculture and the territory, the third and last case will illustrate the building of multiple partnerships between farmers and the local political entity. .

3. Farm-municipalities territorial partnerships

In this third case, it is the conjunction between, on the one hand, the context of decrease of farming activity and the closely-bound closure of landscapes and on the other hand, the territorial stakes around residential and tourist activities who will stimulate the co-operation between municipalities and farmers in this rural pre-Alps region. Through the 70s and 80s, the rural communes around the GAEC de Crène suffered a decline of agricultural activity and agri-food intermediary such local dairies. Do the different aspects approached in the previous case - legitimacy, competencies and intermediary objects- and the use of the two resources of organic farming and collective management, have had the same importance in this case?

In 1991, a farmer leader convinces the municipality to invest in agriculture as they invest in industry or services whenever a firm intend to settle on their territory. His suggestion was to translate this investment in the funding of a collective cowshed that would allow for the four remaining farms to bring their herds together, be more efficient economically and able to survive. In return, the farm could participate to the maintenance of fragile ecosystems and even create a new job for a young farmer inside the enlarged GAEC structure. Convincing the municipality, he could also convince farmers who were already used to work together since a dramatic accident on one of the farms that had pushed them to organise themselves for the cows milking. Three mayors who could find regional funding to co-finance the project were seduced by the prospect of encouraging agricultural activity on their territory because it brought strong advantages in their rural development policies : encourage tourism

for one, attracting new residents for the other. The key advantage for them is to have “open landscapes” : transforming the fallows in managed cultivated lands.

Territorial articulation : Farm-municipalities contracts

Three conventions between the GAEC and the municipalities are thus signed in 1991: formally their object is “public investment in the building of a common cowshed in exchange of the farmer’s involvement in the territory management”. The conventions detail areas totalling thirty hectares of land that need to be renovated and maintained “open” during ten years. Behind the legal justification, many technical specifications were left to the knowledge and ability of the farmers. Beside the construction of the co-financed cowshed, the choice was made to develop the local rustic Tarine breed.

The main impacts of the convention and merging of the activities concerned labour organisation in the enlarged GAEC and the importance devoted to landscape management. While several associates carry on the daily tasks such as milking and feeding operations, other associates can take the time to develop skills and tasks linked to the convention’s implementation:

- identification and contacts with about 300 landowners to propose them a lease for their parcels in exchange for cleaning up and put back to cultivation the parcels (no rent paid during the first three years as planned in the convention)
- Management skills to restore abandoned lands, which give a visibility to the role played by the GAEC.

On the one hand, this operation brings the surface managed by the GAEC up to 400 hectares (40 of crops). Combined with the gain of efficiency in the herd management, this will help the farm to stay economically viable. On the other hand, open landscapes and Tarines cows giving a “mountain image” satisfy the municipalities’ plans to see their territories regain their attractiveness.

Moreover the important but punctual co-operation between local institutions and farmers gave rise to many other partnerships that will deeply influence both the GAEC, the territory’s various actors and their mutual relationships.

Learning process through the co-operation

In 1992, the GAEC decides to convert to organic farming. The herd’s extensive rearing - made partly possible thanks to the new lands acquired in the frame of the convention- brought the farm cultivation and breeding methods close to organic standards. Besides, no new investments had to be made: the cowshed had been built in this eventuality, a compost surface had been settled, the breed was strong, etc. As we saw in the first case, the organic certification gave an added value for their milk production. The local dairy co-operative, on the demand of the GAEC and other farms, started a new organic dairy chain, which secured the GAEC’s conversion to organic.

In 1993, during the conversion period, the GAEC repeats the scheme of the 1991 convention but with another partner: the regional environment conservatory agency that agrees to finance other specific investment (tractor materials) in exchange of the extensive and conservation-oriented management of a fragile marsh by the farmers. This brings enough loose straw - accepted by organic standards- for the large herd, which was in need for it.

In 1996, with the collapsing of the meat market due to the mad cow disease, the GAEC decides to organise a direct sale of the meat of their dairy cows. Local inhabitants, seduced by the meat quality at an annual municipal meal and urban consumers attracted by the organic quality and the picture of the local breed Tarine will make this sale profitable to the GAEC.

Lastly, in 1997, the GAEC will even sign an additional convention with one of the three municipalities involved: the GAEC will supply the local primary school's heating system with woodchips in exchange of a municipally-bought selvedges-cutting machine. That will make the maintenance of hedgesrows and selvedges economically efficient for the farm, an operation that was compulsory for them since the initial convention.

The GAEC is thus today well established in its territory. The history of the initial convention with the municipalities brought an institutional framework where mutual trust and necessary skills could be build. The investments in the cowshed create an irreversible situation that stabilises on the long term the co-operation between municipality and the farmers of the GAEC. The new labour organisation within the farm is more efficient, from an economical, environmental and social point of view. This gave credibility to the GAEC and opportunity to various partnerships with other organisations or with non-institutional actors. The environment conservatory agency, for example, trusted the farm's goodwill to engage in a ten-year convention since they knew the co-operation with the municipalities was a success.

Legitimacy, competence and pertinence of the scale of co-operation

The GAEC de Crène's example showed us that the importance of the actor's legitimacy to build partnership is real. Durupthy, a local peasant farmer, is at the same time legitimate to negotiate with the municipalities and their citizens, with other peasants, with economic structures and with environmental agencies. At the contrary to the second case, his identity is funded on his local involvement on the long term in all kind of socio-economic stakes for agriculture. His status of organic farmer has little influence and he did not face the drawbacks encountered by the Bergerie's managers with the cereal growers.

The GAEC manages to find the necessary competencies for some partnerships where they are (such as the agricultural adviser for the initial convention drafting process or an association promoting energy-wood schemes for the woodchips convention).

Here again, intermediary objects as the conventions are general reference frameworks and not only sets of constraints. They allow flexibility when one part faces unplanned events but the essential aspects were stabilised during the negotiation process. The actor's openness to their partner's projects and constraints –such as funding farmers for a municipality, in order to allow the farm to be efficient again- proved to be a key element of the co-operation's successes.

The GAEC's leader, Mr Durupthy, goes to the right person or organisation to build the co-operations in his advantages whether it is about milk, meat or territory management. In this last case, the municipalitie's role is critical. Moreover, each of the partnerships have "visual tools" that brings their appreciation available to both parties and surrounding actors. Residents can indeed evaluate the success of the partnership in which their municipality engaged itself in by seeing new open lands. They can also appreciate the GAEC's role and importance of the funding it received when they buy meat at the local sale. The visibility of

the partnerships also proved to be important in our second case; the hunters and farmers had visual tools to evaluate their partnerships : new hedgerows, game populations census,...

Organic farming, in the case of the GAEC de la Meix, has been a resource to transform extensive agriculture to marketable products with added value. It also provide some new connection with the territoriality of the production such a need for organic loose straw will lead to marsh conservation-oriented management).

The advantages of the collective management allowed by the large GAEC structure are multiple: one the one hand, it brings the possibility for associates to take time with external actors and negotiate new partnership that will consolidate the farm strategy while other associates assume the day-to-day work. On the other hand, it allows associates to deepen their knowledge of organic techniques such as homeopathy by being able to assist several-days trainings held in far away places, an opportunity that would have been difficult for a single farmer.

4. Discussion and conclusions

A. Multifunctionality, organic farming, collective management and intermediary objects

While we didn't clarified it in the introduction, we had made an implicit hypothesis : the management of the multiple functions of the territories sends back to the management of a complex problem that require both knowledges and collective action. Knowledges go from localised practices to more general knowledges : sustainable hunting practices (game populations management, relationships with walkers,...), localised and stabilised knowledges (such as the status of different parcels in fallow) and broader knowledges (regulations and subsidies, juridical and commercial resources (organic standards, PDOs, farmer denomination,...). These knowledges, as the second and third case studies prove it, can only coexist, be built together and stabilise themselves only if they articulate themselves through co-operation (collective action). These types of collective action can take various forms : co-operative, contract, regulations,...

While choosing case studies that relied on organic farming and collective management, we made the hypothesis that these two resources would allow or ease the farms to meet and manage this complexity by facilitating the circulation of these knowledges and by their ability to link themselves to their environment. Is it so ?

Multiple organic configurations

Concerning the organic resource, we faced three different configurations that we named "organic historic", "Rio's organic" and "organic farmer"⁷.

The bio-historic are the pioneers, highly involved in the French minority farmer union. They claim the autonomy and authenticity of their way of farming but this last will meet the path of the most standardised food chain, the dairy chain and industry, and, doing so, get into a food chain and market-quality logic which will monopolise most of the collective resources of the GAEC. The farm will thus extent its control towards the food chain downstream (Biogam's range strategy). We are in the case of an highly specialised food chain. The organic conversion allows differentiation and recognition of the products on anonymous markets.

⁷ « Bio-paysan » in French.

The second case, the Bergerie, shows on the contrary an original articulation with local actors. The “Rio’s organic” lie within the scope of the Rio’s statement on sustainable development : for them, organic farming is an evidence and part of a larger project. As showed by the water pollution event, this evidence is nevertheless highly contested by the defenders of the productive model whose French large cereal growers are one of the archetypes. On the other hand, this second case demonstrates how the conversion to organic farming and the constraints it implies concerning organic fertilization can bring farmers to more complex choices, as the introduction of breeding shows it.

In the third case, the complexity linked to extensive farming is in some way recognized or labelled by organic certification. In this organic-farmer model, the conversion to organic is an opportunity, the consequence of extensive methods that offers better commercial advantages, especially on distant markets as for dairy products.

Collective management

The second collective resource used by our farms is the collective management, which relies in France on original juridical forms as the GAEC. These juridical resources are important because they allow to reduce uncertainty on the long-run, reducing the need of capital at the moment of the settling of each farmer. While it would have to be deeply studied, this might favour progressive settlings and ease the transmissions of the farms, since associates progressively buy or sells shares as they enter in or retire. This return of investments at he local level also reduces the uncertainty on land tenure, which often remains problematic in the dynamics of re-territorialisation of agriculture.

On the short run, the three case studies showed great advantages of the collective management concerning labour organisation, especially when the farm strategies imply heterogeneous activities (such as land management, direct sale of meat or negotiation with local municipalities) and pertinent scales of operation allowing the economic viability of theses schemes.

Multifunctionality and intermediary objects

In the two cases of hunting at the Bergerie or the co-operation between the farmers and municipalities, intermediary objects such as contracts or agreements allows partners to engage in the co-operation without that each of them has to specify its involvement in details. Such objects are both a written formalisation of the co-operation and a definition of the legitimacy of the actors that engage in the partnership (farmers managing landscapes, hunters respecting walkers, mayors investing in collective agricultural infrastructures). These objects are intermediary in the sense that they are a reference (a goal that partners tend to approach) but are flexible and can be put into question at some moments. They frame the action (actors, a territory and different issues) but do not determinate it completely (methods of hunting, of landscape managing, heterogeneity of meat packages...). The strength of these intermediary objects states in the dynamic that has been created in their negotiation, in their own dynamic and in their ability to project partners in the future. The limits of such objects are defined by the networks of actors that grasp them.

The dynamic of the partnerships framed by such objects also relies on the visual signals that they offer to the actors that will evaluate at the same time the legitimacy of the actors involved and the efficiency of the partnership. The hedgerows in the hunters-Bergerie co-operation, the picture of a Salers cow on the consumer’s co-operative leaflet are holds that

give to all an access to the project. So are the Tarine cows and the open landscapes they manage in the third example. The partnerships need holds in order to be visualised : this brings the question of the visibility of an eventual partnership around the water pollution problem in the Bergerie case : how to render visual -for the citizens- the link between sustainable farming practice and water quality ?

Finally, the products of the farms articulate or refrain the possibilities of connections called by the multifunctionality. Water, cereals or meat will not lead to the same kind of partnerships because they concern different scales of territories as well as different types of actors involved. For hunting, the territory is a well-defined domain and the partnership involves only the proprietary and the hunters association but for water, the territory might be far larger and any partnership intending to promote multifunctionality in the territory might require the involvement of more actors than only municipalities and cereal growers. Finally, our observations confirm what other studies already showed : the bovine rearing system, as an agro-ecological system as well as a symbolic (bovine meat) system is a strong resource on which a multifunctional development of territories can be backed.

B. Public policies : towards multifunctionality ?

These case studies prove that there are strong arguments to adopt the territory as a starting point to tackle the multifunctionality stakes rather than agriculture. As the two last examples showed us, different types of partnerships between farmers and non-agricultural actors (socio-economic or environmental actors) have the ability to drive agriculture towards multifunctionality. We thus agree with the central hypothesis enounced for this workshop : "territorial assets are the core component of the evolution of agriculture towards multidimensionality".

Moreover, these types of local partnerships show that local co-operations are very efficient to find the right solutions to articulate the relationships between agriculture and the territory, probably more efficient than national or European policies could be. While it teach us that public policies cannot rule every aspect of the territories and of agriculture, they may still increase or decrease the ability of local actors to build new co-operations that build steps towards multifunctionality. In that sense, the question brought by the hypothesis is "how can public policies promote the use of territorial assets as a main component of the evolution of agriculture towards multidimensionality?". The reorientation of the common agricultural policy towards multifunctionality as encompassed in these case studies would then necessitate deeper reforms than the actual ones.

Favour the emergence of co-operation among the different actors of the territory

From our case studies, we identified that public policies should first increase the different resources on which these useful co-operations are built on.

Firstly, better juridical frameworks allowing collective farm management (such as the French GAECs) could be created in a number of countries. Public funds may then help these collectively-run farms to make the capital and land investments needed in exchange of territorial contributions that would push farms towards multifunctionality. As the GAEC de Crène case showed us, this type of investment linked to a long-term involvement of the farm in its territory are an interesting tool to re-territorialise agricultural activities.

Secondly, public policies may create more collective resources that can be used by the farmers and their partners. Our case studies showed that PDOs denominations or farmer products denomination were essential to their strategies and progress. We assume that quality denominations that articulate new relationships between products, farming methods and the territory are powerful resources towards multifunctionality.

Multidimensional education

Lastly, the integration of the territorial and multifunctional stakes in the initial and continuous education of farmers as well as other concerned actors, in addition to the teaching of the food chain logic, would give another push to future connections.