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How public policies on livestock sectors could support innovations and transitions toward a renewed pastoralism in Corsica.

A contribution to a prospective approach on the future of pastoralism

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Abstract - Corsica has a high cultural pastoral background but is facing important challenges to keep one's livestock sector alive. The present public policies in favor of the livestock sectors and the several representations of pastoralism by the actors have been analyzed. We have identified that pastoralism, a production method based on the priority use of natural, local resources and more specifically range lands is seen by most of the actors as a rather idealistic and nostalgic activity and not as a viable technical option. The public payments to support livestock are important but either they promote a productivist model, either they are not based on a clear economic efficiency nor a clear strategy of pastoral development for rural areas. More generically, agro-ecological approaches could be a chance for the future of this sector if the public policies could support efficiently transitions toward a smart specialization strategy, based partly on pastoralism. To be viable, this option should internalize its ecosystemic services and more financial and human resources will have to be dedicated to support them. Re building an innovation system based on pastoralism, by developing specific capacities and enhancing the local know-how and skills would be also necessary.

1. Introduction

The situation of the livestock sector in Corsica, a French insular region located between Tuscany and Sardinia gives a good example of the challenges faced by these activities in several Mediterranean regions. Although the History and Culture of the island have been deeply influenced by pastoralism, it is now mainly mobilized as an idealized reference. Meanwhile, the sector has to face a double contradictory reality explained in many studies as the recent prospective report edited for the sheep and goat sector by the Abso-Conseil consultancy (2010). For many years, the sheep and goat breeders' population has got elder with a low replacement rate when they get retired and a low number of new young breeders. The lack of available lands to rent or to buy is particularly enhanced although 95% of the island is composed of fairly not valued "maquis" (shrubs), rangelands and forests. Simultaneously, the production systems are more and more artificial with high production costs due to permanent high quantities of bought forage (like "Foin de Crau", a high quality PDO hay imported from the South of France) with high quantities of feed stuffs and concentrates, and most of the traditional pastoral practices having been abandoned with for example a shorter summer transhumance period limited to dry ewes..

Simultaneously, and consequently, production cannot meet an always growing demand, thanks to the good reputation of the Corsican products. The prices are very high and milk from Sardinia has been imported as live pigs from mainland France. Since fifteen years, the producers have begun to organize themselves with a double strategy of specialization and improvement of productivity on one side, of promotion and certification of typical local products on the other side.

But the situation of the livestock sector in Corsica has to be considered more widely in relation to the general context of globalization. Paradoxically, everywhere, many activities are re located with permanent tensions between what is global and what is local (INRA, 2010). This context forces radical and urgent changes; they ask what transition modes would manage these changes. Several

convergent factors influence these dynamics of change: environmental factors with injunctions to use less non renewable resources; institutional factors like lower public subsidies; economic factors with the higher costs of energy; societal factors with a general attraction for local and “natural” products.

The several stakeholders in Corsica have begun to be aware of these changes. The Corsican livestock sector could valorize its own resources if it could develop innovations to manage these transitions and its development. To go in this direction, greening of Agriculture must be considered as long term tendency, and not as a punctual opportunity. Our premise and initial hypothesis is that pastoralism, a mode of production based on the utilization of rangelands and natural pastures with few inputs and enhancing local know-how could be an innovative way to produce (INRA, 2010). Besides, we know that the public policies largely determine the orientations and dynamics of agriculture and livestock. The objective of this communication is to explore how the public policies, in Corsica, by their actions and subsidies in favor of livestock, take in account the ongoing mutations, how they support and favor them. We have relied on the analysis of the main programs and attached documents, on the conditions of their implementation and the share of their financial allocations to mobilize them.

2. An analysis based on the programs to support livestock sectors

The public programs to support livestock in Corsican are mainly financed and implemented by the European Common Agricultural Policy (CAP) Program. This one comes in two pillars with different well defined objectives (EU,2013). The first pillar provides agricultural market and income support related or not to produced volumes. The current policies tend globally to decouple the subsidies and the volumes produced, the direct subsidies being more and more conditioned by the implementation of good environmental practices. Besides, an important part of the subsidies of the first Pillar has been dedicated to the several productive sectors and for training. In France, the “France Agri Mer” Agency has been charged of these measures.

The second pillar has been created to strengthen a broader rural development policy. It supports structural changes and competitiveness in agriculture, the provision of public goods, notably agri-environmental goods, and initiatives to develop rural areas. Among them, the Compensations for Natural Disadvantages (CND) have a high importance in Corsica. Since the reform of the CAP, a part of the resources initially dedicated to the first pillar have been progressively transferred to the second one (EU commission, 2013).The programs to support livestock in Corsica are based mainly on the local application of the measures of the first and second pillar with their national and regional counterparts. We have analyzed how the respective governments of the Corsican Region (Collectivité Territoriale de Corse) and the central state have divided their powers from the approval to the payment of subsidies.

Indeed, Corsica has got for twenty years a larger political and administrative autonomy and a large part of the powers in the hands of the central national administrations elsewhere has been transferred here to the Regional Administration. We have studied the consequences of these imbrications between these several powers on the projects’ governance of the public policies. The terms of mobilization of the financial resources regarding the ongoing dynamics have been also considered. Several officers of the main services in charge of these programs have been interviewed (ODARC, the Agricultural and Rural Development Agency of Corsica and OEC, the Environmental Agency of Corsica for the Regional Administration; DRAAF/DDTM, the Regional Direction of Agriculture and Departmental Direction of Territories and Sea, the National Decentralized Administration of Agriculture and Territorial Policy for the National Administration). The objective of these interviews was to identify how their powers are interconnected and coordinated. The focuses were on pastoral orientations, how each program is implemented and according to the opinion of each officer, what would be their impact. Two professional organizations (ILOCC, the inter-professional dairy sheep and goat Association and “a Muntagnera”, the Corsican rangelands Association have been also interviewed to identify their perception of these policies and the expectations of the professionals about pastoralism.

This entanglement of powers is still more visible for the Second Pillar. The common paying agency is ODARC but several administrations share its execution. On one side, the National services (DRAAF and DDTM) are the executive boards of the Compensatory allowance for areas with Natural disadvantages (ICHN) but on the other side the execution of the Agri - Environmental measures has been shared between two different regional organizations, ODARC and OEC, the Environmental Agency and its service on pastoralism.

3.2 How the financial means have been shared and mobilized

Funding for the livestock sector in Corsica is high thanks to both the first pillar (by EAGF) and the second one (by the European Agricultural Fund for Rural Development, EAFRD and the European regional development fund, ERDF). For the first pillar, the single form payment (SFP) has been based on references on agricultural areas and productions prior to the CAP reform and has reached €13,5 millions in Corsica, 14% of the gross added value of the Corsican Agriculture, a rate below the national average due to the lower productivity of Agriculture in Corsica than in other French regions. But the suckling cows and sheep and goat premiums have reached respectively €1million for 125 breeders and €2 million for 200 breeders in 2011.

Regarding the second Pillar, the Compensatory Allowance for Areas with Natural Disadvantages (ICHN) has been the highest financial issue and €10 837 389 are paid of which 52% have been allocated to cattle breeders who receive also the suckling cow allowance (PMTVA) but with a very low part of the gross added value of the livestock sector in Corsica. Indeed, an important part of the registered cattle livestock is constituted of suckling cows, grazing in the rangelands and shrubs without being really managed although a small group of professional breeders has recently begun to organize. Comparatively, the Agri -Environmental measures have been in favor of only 400 farmers for 12335 ha for an amount of €1, 9 million each year between 2008 and 2009. They include funding to promote conversion in organic Agriculture, the preservation of local genetic resources and territorialized agri environmental subsidies. All the actions to support Agriculture have been reported in the Rural Development Program of Corsica (PDRC 2007-2013). This specific program has been approved by the European Commission and is different from the National French Rural Development program. It has defined the main orientations of the Agricultural and rural policy in the island. It will be included in the ongoing Sustainable Development Plan of Corsica ("Plan d'aménagement et de développement durable de la Corse, PADDUC"). Several axes have been defined to support several projects within each local rural territory and specific animation implemented. In spite of this specific planning, it can be observed that most of the subsidies are distributed rather mechanically. And all the subsidies to support the agricultural, forestry and livestock sectors in Corsica are only €2, 3 millions which is relatively few if we compare these amounts with those quoted above. Besides, several subsidies had been hard to justify to the European Commission in 2010. To be able to argue on the legitimacy of the local production systems to receive ICHN, The CTC has decided to set up a pastoral scheme with complementary funding.

3.3 Perception on the role of pastoralism by the institutions, their vision of their actions in favor of livestock and of the efficiency of public policies; the expectations of the professionals.

Implementation, governance and impact of the livestock policies in Corsica

The institutional and administrative officers met have shown a high reflexivity and lucidity about their action. It has been analyzed at two levels; the first one is about the structural support of the livestock farms, and the second one about innovative individual or collective projects.

About the structural level, the regional policy is clear: to preserve the present global income of the « Corsican farm »!

This policy has the objective to get financial resources in rural areas with few economical alternatives. Nevertheless, the actors met y are aware that a high part of the beneficiaries of some allowances

(among them those linked to pastoral mode of production as PMVA or the PHAE, the “Agro-environmental Subsidy for Natural Pasture”) have no real productive activities.

They assure they would be aware of the need to rethink pastoralism in the light of the challenges of the 21st Century; they also consider that their policies have to face governance problems that should have been considered before. For them, the pastoral scheme is the confirmation of their will to improve the present situation by mediation, training and consultation with professionals. But they consider also the number of proposed projects is too scarce at all levels and pastoralism would need always to be legitimized in spite or because its cultural and traditional references. Among the possible innovations to promote pastoralism, the pastoral land Associations (“Associations foncières pastorales, AFP”), the development of technical services on pastoralism and the diversification of rural activities are quoted, as a way to make pastoralism a viable technical solution. Building trust between the several actors would be still an objective to “*go out failure, fatalism and the nostalgia of an idealized rural world to face the challenges of the future agriculture with coherence and efficiency, what is now possible*”. A better comprehension between the logics of environmental protection, forest fire prevention, and pastoralism seems to exist and to be favored by the institutional rapprochement between the regional services in charge of pastoralism and environment. The services of the Territorial Collectivity of Corsica (CTC) have the operational pre-eminence over the national public services which have mainly to control the legacy of the actions and realized payments. Regarding pastoralism, the priority of these national services (DRAAF and DDTM) has been to watch that European regulations have been applied. They had mainly to control that the compensatory allowance for areas with natural disadvantages, have been attributed to real grazed range lands without penalizing really efficient pastoral activities.

Relying on local practices, a characterization of used rangelands has been undertaken to consider non grassy rangeland, really used by the animals but ignored by the European regulation (INRA, 2011; Paoli et al., 2011). These national state services have otherwise a good expertise which could be mobilized in cooperation with the regional services. To limit the negative consequences of the subsidies, the DRAAF, would like to re-examine the criteria to award the premiums, excluding more than 12 years old cattle and more than 7 years old cattle and sheep to favor culling of cows and eliminating unproductive animals. As the correspondent of France Agri Mer, the DRAAF has also an important power of influence by attributing specific subsidies to the professional organizations and is also in charge of the agricultural education in the island.

Perception of professionals

All the professional organizations have not been interviewed in this preliminary study. For the Dairy Sheep and Goat Inter professional Association (ILOCC), internal conflicts, auto limitations and collective inertia make difficult to get a consensus and clear decisions and a shared commitment with public administrations. But the technical discourse seems to be clearer regarding pastoralism, in spite of it is not the priority of the breeders facing several productivity or land problems, and a low incitation to settle young breeders. They have today acknowledged that extension services have to take into account the balance between the rangeland management and the creation of cultivated meadows for a better positioning of pastoralism in the future. The regional Federation of rangelands has also underlined clear diagnosis points: Why the breeders do not lead their herds in the mountains? The function of summer pasture to prevent them from disease, the touristic opportunities to market cheeses in rangelands is well known. But transhumance is less practiced and its duration is reduced now “*a shepherd who was driving his herd in May, now is waiting until July and only with dry ewes or goats*”.

The hard conditions of life, the lack of infrastructures (no motor able tracks, no electricity, closed shrubs due to the prohibition of controlled burning until recently and lack of stocking rate could be explanations. The possible role of education has been also enhanced. Redirecting more subsidies

toward productive activities has been indicated as a priority that could restore trust between professionals and institutions.

4. Discussion: Why and how public policies in favor of livestock sectors could face the emerging challenges?

4.1 The livestock sectors between transition and disentanglement

In Corsica, more and more professional and institutional actors, are aware of the challenges they will have to face very soon and of the role pastoralism could play if the environmental services would be remunerated. The discussions have shown however, there is no alternatives now to change the present system of subsidies. Anyway, the pastoral option has not been clearly identified versus the other modes of production in Corsica. No coherent pastoral model has still been defined. The absence of projects is stigmatized but mean while the conditions are not good for young farmers nor settle nor to acquise land. Although the price of milk is one of the highest in the world (more than €1,20 /litre) many farms have a low profitability. Both the professional and administrative officers have the same objective to improve productivity without pastoral strategy (Abso Conseil, 2012). So we have shown that the strong pastoral image of livestock activities in Corsica has been dissociated of the reality of the technical choices (Seyni Saley, 2011).

Otherwise, twenty years ago, Le Carignon et al. (1994) had already shown how perverse were the public subsidies in favor of suckling cows but their suggestions have not yet been considered until now. So we could assert that the paradigm of modernization and specialization has dominated and dominates always the social representations of the several actors which have given impulse to the several support policies until now.

Concomitantly, the perception of a structural retard and the lack of competitiveness versus the dominating model has led to compensatory and passing measures (ICHN, PMTVA, PO, PC.). These measures have been strengthened and sustained by strong permanent claims but have few contributed to strengthen the productive capacities of the livestock sector. The several scenarios for the sector, all generating added value, have been all based on the paradigm of modernization and have all anticipated at several different levels trend declines with a decreasing number of breeders, an aging population and at the end a decrease of the produced volumes (Abso Conseil, 2011). Nevertheless, we have observed simultaneously the emergence of a new paradigm which would promote an integrated, sustainable and multifunctional development as we have still observed it in other European regions (EU SCAR, 2012). But the forces and perspectives of this new paradigm have still been somewhat not defined. The gradual changes that transform the livestock sectors from a vision of the world to another are still hard to identify. But several punctual initiatives and the success of the territorial agri - environmental measures (MAET) have shown this process could be initiated. The livestock sector as other sectors in Corsica has been entered in a transition process as defined by Kempf and al. (2004). And it is the difficulty to manage this transition and to make it clear that would justify a political support (EU SCAR, 2012).

4.2 Why it is difficult to change public actions

The assertion of a political will to re orientate the support to the livestock sector is not sufficient to modify the operational actions. It is well known that the administrations are facing routines and the existing cognitive devices with "lock in" processes (Cowan and al., 1996). The interviews reported have shown this tendency has been strengthened in Corsica due to the participation of the actors in several various networks, the lack of trust between the civil society and institutions, by clientelism and bad governance, these realities being at the same time the consequence and the cause of the present situation. The analysis of change processes in the networks of public action, as developed by Lascoumes (1996) has given elements to understand the situation in Corsica. Political arenas have their own contingencies related for instance to electoral deadlines, which do not enable them to ignore the pressures to maintain a system of subsidies; the pressures of many rural actors who are dependent on these subsidies and the balance of powers during professional negotiations. All the

public services are always very institutional and have generally a classical routine and hierarchical way to act (Muller, 1990; Gabas, 2003) including many procedural issues and conflicts between powers (State versus Region; ODARC versus OEC ...).

Simultaneously, to face these difficulties, the answer of the regional politicians has been often to claim more regional powers. But the problems seem to be less who governs than how to make governable. Public authorities have enhanced today, consultation and cooperation and have organized many working groups and workshops, to debate and decide for instance what will be the Plan of Equipment and Sustainable Development of Corsica (PADDUC) for the next years. The first version of this Plan had ignored largely agricultural problems and had faced a strong opposition which blocked its publication. Emphasis should be placed on interactions between public authorities and civil society and improve governance must be a priority.

But the institutions have to face a triple heterogeneity, as observed during the interviews:

- A tangle between very heterogeneous and often contradictory issues (to improve the farmers' income, preserve biodiversity of pastoral zones, answer the expectations of forest owners, favor "*balanced territorial infrastructures without killing tourism*", etc.).
- The heterogeneity of the policies themselves, of their coordination, of their agendas and the difficulty to decide and impulse dynamics, « *there is not enough projects*».
- The heterogeneity of the actors involved and of their expectations.

In this context, the public supports have been implemented thanks to ambitious programs but with very general and not well defined objectives and often unrealistic. Frequently the main indicators quoted have been the rate of credits' consumption). These observations have suggested that enhancing and support collective processes during longer periods could be more operational and efficient than short term very ambitious programs. Working on emerging stakes should be also very important.

4.3 Could pastoralism participate in a strategy of smart specialization?

The role of agriculture and livestock in the development of Corsica has not yet clearly been solved and is always discussed to define future strategies and public policies. Climate changing, the higher cost of inputs and transportations are at the heart of the future changes which have to be anticipated. Otherwise, the changes in food consumption suggest possible articulations between production systems with deep local roots and innovative organizations. The European Union has developed an innovation policy based on the strong winning cards within each regional territory to avoid the dispersion of financial means and investments to promote what they have called "smart specialization" (European Commission, 2013). Agro – ecology could be a component of these perspectives and Corsica could have good opportunities to develop.

We suggest that pastoralism in Corsica could be a priority option by mobilizing a coherent and adapted funding (INRA, 2010) thanks to several positive factors:

- Large pastoral areas with spontaneous rangelands in Corsica which are not really used today
- Several local breeds well adapted to valorize local resources
- Existing local products with deep local roots (cheeses, Corsican veal, traditional jam « *prisuttu* » and liver sausages « *figatellu* »
- A recent but developing type of tourism based on the valorization of heritage resources

Special efforts would have to be undertaken to collect and produce adapted technical and economical references to rewrite the political statements. It refers explicitly to the means to implement to favor the necessary innovation translations for the transitions towards new way to build development (as seen by Callon in 1986). Particularly, the development of local links between actors would be attached to the concept of Localized Productive System (LPS) to help circulate information and mobilizing local resources

Thanks to the analysis of the processes of change in local economies to create innovative environments, the importance of the territorialized support has been enhanced (Loreh, 2011). If the choice is decided to favor pastoralism, as a technical model under construction (and not a survival of the past), seen as a type of specialization and an innovative mode of production, a key success factor will be a strong partnership factor between all stake holders, all the actors of the agri – food sectors (and not only the breeders), with public institutions and the local system of education and knowledge.

5. Conclusion: Exploring the organization of a regional pole of experimentation and competence on livestock and pastoralism

This study has shown that in spite of several programs enhancing pastoralism, there is no real strategy to promote pastoralism in Corsica. And one only financial support seems not to be appropriate to improve significantly the competitiveness of the livestock sector; innovation policies have to be more organizational policies than only financial supports. Promoting pastoralism could be a solution but by policies more clearly in favor of innovation and collective organization. In other words, the framework of inter actions created by organizational procedures would be more important than their substantive content, at least at first. Several possible combinations could be imagined mobilizing both practices of hierarchical governance, networking and by considering the market demand. This type of governance has been called meta governance by Meuleman (2011, 2012) who recommends to take also in account the cultural and social local specificities. These questions of meta governance have been still few explored.

They could be explored in relation to recent projects of the regional office for Agriculture (ODARC). They have proposed to create a experimental and competence pole in livestock. They have based their initiative on an existing experimental unit and on their desire to gather the existing skills of the several professional and technical organizations on livestock in Corsica; They have proposed also to improve the conditions of work of all these organizations that would have all their offices in the same place. Research (INRA) and the University of Corsica have been also associated to the project since the beginning. Such a project could help to strengthen the innovation system for the livestock sector as defined by Klerckx et al. (2012). It could strengthen efficiently also the system of information and knowledge, a necessary condition for the success of a public policy (Dockès et al. 2012). The interviews initiated in the present study could be undertaken near more other stake holders and professional actors to define better the expectations of each of them, to identify better their capacity to be mobilized and the priorities of action. Such approaches could also been studied in other Mediterranean regions with similar problems as in Spain, Italy, Portugal or Greece.

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