The question of self-management within the aid of organisation processes : The collective management of local breeds of ewes, goats and pigs in Corsica

BOUCHE Rémi, CASABIANCA François, CHOISIS Jean Philippe Laboratoire de Recherches sur le Développement de l'Elevage INRA, Quartier Grossetti 20250 CORTE

Abstract - Despite often important funding, very few collective projects succeed in the field of animal production organisation in Mediterranean regions. Based on three participatory research efforts conducted in Corsica on breeding schemes of ewes, goats and pigs, we propose the « process to self management » for the projects as being the main criterion for qualifying the aid given by those organisations whose vocation is to give such aid (extension services or financing and research bodies). These processes deal with how to design the objects to be managed as well as the ways and means of managing them (internal communication, regulations). Thus, helping collective projects is tantamount to conducting learning processes towards self management.

Keywords : Collective project, organisation, learning process, animal production, local breed, Corsica

0 - Context

The Common Political Agricultural reform has provided the field of secondary animal production, including small ruminant or large-scale pig rearing practices that are widespread in the Mediterranean regions, with new possibilities, namely quality products, spatial management and animal welfare. Nevertheless, the small farmers of these regions are often not the beneficiaries of the measures that ensue. As a result of the small size of their individual production units, they become "the victims" of the new European Community regulations and are excluded from the wider market to which access is controlled by mass marketing. The "common sense" reply which is often given invites them to organise and structure themselves to become a decisive body. Despite sometimes sizeable public financing (EU, state, region) destined for these associations, unions or other groups of producers, however, few collective projects succeed and last. In light of current French policy whereby the state redirects its aid through direct and individual contracts to the farmers, we should question the mechanisms likely to permit or to impede the emergence of collective projects.

In particular, it seems important to us to gain a better understanding of the characteristics of the aid and other support whether technological, administrative or financial, which is supposed to help those taking part in collective projects. In this light, the organisations which are created around the collective management of local breeds *make interesting analysis!* (Audiot, 1995; Casabianca and Vallerand, 1994). The on-going work led by our laboratory over the last few years involves measures which require rather long lengths of time. This work is therefore favourable to the approach of learning processes which are at the heart of the running of collective projects.

1 - The issues

We conceive local development as a process by which a group of initially isolated individuals can progressively join together in a collective project, such as the management of a resource - typical product, local breed - or the inter-professional control of a network. Such a structuring demands different categories of active members (breeders, technicians, administrators, etc.) and therefore necessitates new forms of co-ordination among them and new ways of qualifying the objects they manipulate.

This process relies on the support of a framework (association, group) which makes the measure official, though not guaranteeing that it will find its place in the institutional scene of the region. Moreover, to get a start such a process needs the input of outside resources (human, financial) that allow it to meet the needs of its upkeep and subsequently of its own appropriate investments. These resources can be brought to the process by a third party (a body of research or development) whose role it is to provide for and allow the emerging structure to develop.

The **concept of self-management** is fundamental in the evaluation of the success of such a project: the capacity of the new structure to become autonomous (in its decisions) and to remain viably independent of third parties. To be effective, this process to self-management must be well thought-out in advance by the different partners of the project. We therefore propose as the main criterion for the evaluation of the success of exterior aid brought to the project, the procedures and mechanisms which make self-management a solid prospect, integrated into the very forms of this aid. Helping a project involves encouraging the members of the project towards self-management through learning processes: learning to do without exterior aid.

We will briefly present the three research operations, fundamental to our reflections, then we will compare them to the model created for the first and oldest of these. Next, we will identify the principle obstacles which have become evident in the three operations in their current phase. Lastly, we will try to extract the principle teachings of the three research operations concerning the subject of project aid.

2 - Three measures with different developments

To analyse our proposal, we will consider the results of three research operations conducted in Corsica with the participation of ewe, goat and pig breeders in the setting up of the breeding scheme of their local breeds.

2.1 - Chronicle of a success in self-management : UPRA Corsican Ewe

The idea of an improvement in production for the local dairy ewe was first evoked a long time ago. If we find evidence of this in the records of the regional agricultural office of Southern France in 1922 (Boyer & Sajous, 1922), it must have been present in the minds of the technicians sent by the Roquefort manufacturers who introduced dairy monitoring in the 1960s. This setting up of performance checks, however, was not accompanied by any creation of aid for the collective management of the breed. On the contrary, at the time, the same French manufacturers favoured the introduction of exogenous animals, such as the Sardinian ewe. In 1982, in a context of reviving French sheep production, public financing encouraged those responsible for development to set up a structure under their control, with the goal of recognising the Corsican ewe. In its first few years, this association accomplished very little besides the establishment of a simplistic breed standard set down as a record of recognition to the departments of the ministry of Agriculture and to the two or three experts that visited from mainland France.

Nevertheless, in this same lapse of time, breeders of the Corsican ewe, without any doubt in a project serving more as a common identity than for technical purposes, appealed to the INRA (National Institute of Agronomic Research) to help the Corsican ewe. Progressively, the structuring of the information system allowed the emergence of the technical project and the appearance of ewe breeders at the head of this association. In 1986, after 23 years of dairy monitoring without any establishment of paternity, the first generation of rams with background information on their origins and lineage was grouped together in two small breeding centres. This grouping together of rams was a crucial stage in the process, as the rams were under the dual control of a technical authority, giving a guarantee allowing the objective comparison of one animal's breeding to another, and of the breeders themselves, as they had to decide whether to accept or refuse the conformity of the animals to the standard Corsican breed. This stage alone merits in-depth analysis.

This collectivisation of resources greatly modified the size of the starting project, inciting the breeders firstly, to ask for the official recognition of the Corsican ewe and of their technical procedures, then to involve themselves in the creation and running of a single regional centre for the breeding of young registered rams (1990). From then on, the project was driven by regular and numerous professional meetings (traditional shearing, markets, fairs, animal auctions, agricultural shows) and by trades and technical training. This meant that by 1991, the project had grown to a sufficient size to join national authorities (National Dairy Ewes Committee). In 1992, the starting up of experiments on artificial insemination signified yet another landmark.

In 1996, the association officially became UPRA Brebis Corse (Corsican ewe). Recently, it created its own subsidiary, a co-operative for artificial insemination and sale of breeding stock (CORSIA) allowing the prospect of future self-financing thanks to its activities. Thus, in little more than a decade

some of the animal producers who weren't necessarily particularly skilled at the outset, were able to take on the management of their scheme (Vallerand *et al.*, 1994).

2.2 - Goats : an obvious analogy ... but some stumbling blocks

For several years, there have been desperate attempts to introduce a goat breeding scheme in Corsica, similar to that of the ewes. It is therefore interesting to analyse the obstacles which can arise in collective projects. Corsican goat rearing is often compared to the ewe system due to certain similarities between the species (small ruminants, daily milking, resistant to the seasons and consequent variations in food availability). Nevertheless, the differences associated with these two species (gregariousness, domestication)¹ and to the land use² places the two rearing systems on separate trajectories in terms of their development. Thus, although the ewe finds some analogies (independent of production levels) with other French milk-producing areas, be it only through the presence of the same manufacturers (and their technical services) in the collection of milk over the last century, the lag existing between goat rearing in Corsica and that of mainland has been instrumental in creating a certain isolation: there are no models (other than that of the ewes) to set the example for goat breeders in Corsica. The many differences between ewe and goat rearers in their daily activities make the ewe model rather ambiguous, both appealing and ill-suited to the goat rearers.

The goat technicians, who were recruited into the same services and at the same time as the sheep technicians, have tried many a time to start up a dynamic for Corsican goat breeding identical to that of the ewes. However, they never really took the differences between these two species into account, nor the necessity to structure a professional organisation likely to be able to carry the project through.

In 1997, the goat breeders and technicians, supported by the administration, appealed to the National Institute of Agronomic Research to help them set up a breeding scheme for goats like that of the ewes. After an in-depth diagnosis of the constraints and specifics of goat breeding (Bouche and Hugot, 1999), a plan of expenses was worked out with the different partners likely to play a part in this project. This plan was constructed on three levels, and aimed to simultaneously consider the animal (individual characterisation), the breeding scheme (performance and constraints) and the management of the breed (animation, co-ordination). It's aim was to link together the stages of formalisation and resolution to allow the compiling and negotiating of a schedule of conditions.

Unfortunately, the all too evident proximity of the neighbouring ewe model, which, furthermore, has the same contributors, led the political authorities to believe that this project was simply a matter of allocating a sizeable amount of money to gain instantaneous results. In reality, even though successful breed management is necessarily a long-term process, due to genetics, the stumbling blocks have already impeded the emergence of this organisation. Certain members of the technical circles, too hasty and wanting no doubt to clear their names in advance for the lack of efficiency in comparison with the money poured into the scheme, have already laid the blame on the individualism or archaism of the goatherds of these regions. These goatherds, limited by a certain fatalism which has always tended to condone their marginality, often foretell failure themselves: " *here, its different, there's nothing we can do.* "

2.3 - Corsican pigs: large-scale rearing, far removed from other models

The local breed of pig is an emerging one, yet at the same time it is the last local genotype still in production in its own region in France. The animals are kept entirely in the open air, driven out to graze in the mountains during summertime, then in the autumn led to pasture in chestnut and oak groves where they stay until their slaughter in winter. This slaughter is late, when the pigs are about 18 months old, and the carcasses have a good adiposity. The composition of the meat and fat is very original, particular to the local breed, excellent for the production of dried meats with long periods of curing. In the absence of a technical model of long-term production, the breeders have long been looking for a means of combining the advantages of their local breed (roam independently, resistance to food scarcity and weather conditions, capacity to walk long distances) with other selected breeds

 $^{^{1}}$ « the ewe has its food as the goat has its goatherd » so say the Corsican goatherds to differentiate themselves from the shepherds in their respective relationships to the animals.

²The Corsican goat thrives in woody and steep areas which are often not suitable for sheep rearing.

with good growth and form. Alternating crossbreeding practices (with periodical reimpregnation to remain close to the local breed) have been performed (Molénat and Casabianca, 1979). This has contributed to confusing the present day situation. Indeed, being neither a large, widespread breed, nor one in danger of extinction, the Corsican pig has never been the subject of any national programme. Today, certain breeders have their own project to establish a label guaranteeing the origin and quality of their Corsican dried ham, or *« prisuttu »*. In this light, the Corsican pig has become a facet of regional development (Coutron-Gambotti *et al.*, 1999). What will the breed standards be (Casabianca *et al.*, 1998) ? How to determine the relevant criteria to achieve a directed breeding in order to better control production (Secondi, 1999)?

In collaboration with the regional association for management of the local breed, created in 1996 (Saby, 1996), the Chamber of Agriculture and the ITP, we are striving towards:

- \Rightarrow the collective construction of phenotypical and behavioural criteria with the agreement of the breeders,
- \Rightarrow the conception of a breeding environment combining answers on the domestication, breeding and improvement of animals with a capacity for adaptation to the constraints of large-scale rearing,
- \Rightarrow an aid in organisation given to the project members, and their institutional inscription.

Numerous difficulties present themselves as soon as this institutional inscription becomes evident in the regional negotiations for financial allocations. And, after having known a relatively constructive period, the way is now blocked by the monopoly of a departmental development body wishing to keep its hold over the project. Faced with these practices that are obviously adverse to a regional collective (upholding of a departmental level breeding policy), the rearers still have little structuring and are currently generally incapable of asserting their legitimacy to run the project.

3 - A Glance over the processes and the conditions for success

From a modelisation of the sheep scheme - without wanting to generalise, thus denying the specificity of each of these situations - we can start to identify some of the phenomena which impede the evolution of the projects, such as the goat and pig breeding schemes.

3.1 - Modelisation of the sheep scheme

Schematically, the progress made over 15 years in putting the sheep rearing scheme into action can be analysed in terms of a development which links together the stages of the anticipation of constraints, of successive experiments, and of socio-technological changes, labelled « whirlwinds » by innovative sociologists (Akrich *et al.*, 1998). This is presented here (fig. 1) with the help of a *geometric fractal formalism* where each part is a reduced image of the whole, which gives it a character which is both independent and composed of a superior level possessing new properties (Atlan, 1983).

This representation allows us to measure the importance of a progressive, tiered construction, in which one can perceive several sequences:

- The generation of the idea and formalization of the conceived project as a cohering of the means and objectives. These can be represented as a series of repetitions between a phase of preparation and specific support for each entity and a phase of regrouping and shared construction by the two entities,

- Emergence of a superior level of organisation, with the appearance of a regulation and control component within the system,

- Differentiation and self-management of a form, organised to a high standard.

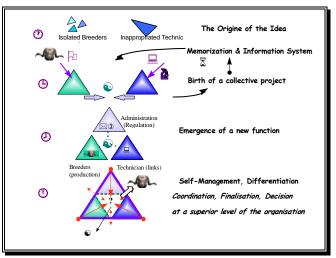


Figure 1 : Process of structuring of an organisation[Bouche, 96]

3.2 - Mobilisation of resources

In our model, a third party, denoted by the sign \odot (the research worker at the outset of the process) successively holds several essential functions at the heart of the operation. From the technical and methodological support for the structuring of information, to the setting of the project's goals, these things have enabled a better standard of organization. In all of this, one of the important factors is to know, when to allow the new structure its autonomy.

In the past, numerous projects in France (Beaufort, Roquefort) have involved research workers to various extents, even if this role is often eclipsed behind a more conventional image of research (Mustar, 1998). Nevertheless, its not as much the fact that the starting of a project can be aided through research that seems important to us, but especially that such a process necessitates a "catalytic"³ function impossible to find in the internal resources of the structure which is looking to become independent. Consequently, this exterior and specific resource would be too costly in the early days of a project. Paradoxically, in order to be efficient, it necessitates a particular commitment, verging on the militant, which is difficult to codify and therefore to institutionalise (Albaladejo and Casabianca, 1995).

The progressive and advised mobilisation of exterior resources to the system (third party, technical innovation, financial contribution) allows the successive surmounting of stages according to **an appropriate order and at an appropriate rate**. A higher level can emerge only when the basic entity has reached maturity. Similarly, it remains difficult to envisage the surmounting of a stage as long as a certain number of rules and orchestrations have not yet been proven to be efficient in the system.

3.3 - The functions of the active members in the organisation

In this sense, the identification of the partners, of their functions at the heart of the organisation as well as of the stage in which they intervene, is an essential element of the construction. In our example, it is possible to differentiate three types of active members according to the role they take in this system, described as effective in systemic theory (Lemoigne, 1990):

- \Rightarrow the producers, synchronic function
- \Rightarrow the technical field, diachronic function of « bringing together »
- \Rightarrow the creators of the rules (health), self-managing function of rules

The goal of self-management is that the producers progressively acquire the function of creating the rules of the organisation which they run.

It is through the mechanisms and procedures linked to the processes of organisation that we propose to undertake the analysis of the obstacles faced by the other schemes. In particular, the modelisation of the ewe experiment indicates the importance of the temporality in collective action. The principle dysfunctions likely to impede these projects are the bad perception of the state of the goat and pig projects, and the haste to see them succeed, irrespective of the **irreducible ''time'' of the learning processes** (Piaget, 1972).

We will successively examine the problems which arise from weaknesses of the professional realm (cf. § 4) and those attributable to the strategies and practices of the institutions in charge of development (cf. § 5) with particular attention to the question of the *temporalities* in the collective action.

4 The breeders society

4.1 - To consider the object carried out by the project as a « given »

A local breed, like many patrimonial things, is a legacy of a past which is often confused, vague or mystified. Its collective management poses many problems, all the more so as it cannot be a matter of maintaining this resource in fixed state, which is sometimes not economically or socially viable. To a breeder who uses « natural » methods, the acceptance of a characterisation or a codification of that

³In chemistry a catalyst remains unchanged at the end of a reaction, which is probably not the case in the field at hand.

breed is not enticing, though it is indispensable to the approach towards certification. Conversely, to want to lay down outlines for the breed (thus assuring the income of certain people) places the project workers in a power struggle (risk of counterplan).

This leads to considering the object carried out by the project as a static product, already successfully completed. This means missing an essential stage in the development and maturation of a project: the stage of conception and learning by the different partners of the project around a « technical object » undergoing progressive adjustments. This stage of elaboration is the preliminary to the definitive realisation of the visualised product, giving a real meaning to the collective project. In any case, it is thwarted by many problems at the moment.

4.2 - Between « to be » and « to become »: recognition

The recognition of the breed, which generates interest politically (elected consuls) and economically (dairies, cheese farmers), is a stumbling block which creates a lot of fuss and seriously impedes the future of goat and pig breed management.

If the administrative mechanism can **differentiate a breed from an animal population** by the existence of a management system (herdbook), the majority of the local breeders cannot see why the administration, seen as pernickety, cannot grant the simple attribution of « breed code » to resolve the issue of recognition. They consider that this attribution is totally legitimate for the numerous criteria that « have always » differentiated their animals from those of other breeds. Indeed, reared in large-scale conditions, often calling on specific techniques, Corsican breeds often have very marked phenotypes in comparison with those of their counterparts from elsewhere, the latter having undergone improvements and standardisation's. Except in extreme cases, the confusion between Corsican and non-Corsican animals is unlikely, all the more so because blood infusions are costly and therefore few or recent, notably in sheep and goat species. For the pig species, quite frequent crossbreeding does not only modify the appearance, but also the growth performance, which sets the Corsican animals apart from their crossbred counterparts. Generally speaking, the **existence** of a local breed of whichever species is not doubted by anyone. For many, it would barely suffice to sort through the animals and to inform certain breeders that theirs are not entirely conform. Why not make up for lost time by a simple administrative decree?

This is an essential question because it comes back to considering **the breed as an administrative element independent of its management component** and which is capable of securing a future for itself. The question is a consensus of many interests or points of view:

- ⇒ The dairy sector and the enterprises who market the product's "authenticity" to gain extra economic advantage. With this business reasoning, the time taken for the learning processes is money down the drain.
- ⇒ The political system and its elected consuls, who do not wish to further the emergence of new powers likely to oppose their legitimacy (as in the case of the ewes) but also who refrain from having to support the policing and control systems (adherence to a standard) incompatible with a vote-catching policy.
- A good number of breeders ("from generation to generation"), who have difficulty integrating the magnitude of collective management with an animal that they have always known, and have difficulty imagining that someone could come along one day to contest that right.

Faced with these common interests, to consider the recognition as the final element of a long process of learning and organisation, is not neutral. It is one of the elements which has allowed the self-management of the UPRA project, since despite all the phenotypical evidence allowing the differentiation of the breed following the first commission of experts, the recognition of the Corsican breed of ewe was only provisionally pronounced to last for 5 years, and this in 1987 on the basis of the technical programme presented by the breeders (the gathering and distribution of young rams). Conversely, the inscription in the technical regulations of the AOC "*Brocciu*", the label which guarantees the origin and quality of the "*Brocciu*", (a Corsican cheese made from ewe and/or goat milk) states the necessity to produce the cheese from the whey of *Corsican* livestock (an officially recognised breed such as the Corsican ewe, or may this comprise the Corsican goat, which remains

classified as local population) provokes such pressure from the dairy industries that this risks, paradoxically, disqualifying every measure aiming to organise the management of the goat scheme.

The opposition between « to be » and « to become », beyond its philosophical dimension, has considerable importance in the mechanism of the project.

- ⇒ How to imagine **the need to « become what we already are** » in a legitimate way in the face of history?
- ⇒ How to « officially » become that which one legitimately aspires to, in erasing one's history, as if it no longer counts?

4.3 - The eligible parties: representations to converge

This ambivalence between the fixed object and the project to be constructed is heavily emphasized by the numerous representations one meets amongst the bearers of the project of patrimonial management. In a relatively enclosed island environment, does the collective management of the resource legitimately belong to the only heirs in direct descent? The rights of legitimate kinship by an obvious contribution to the upholding of practices which today differentiate the resource, but it still remains to be able to fix the origin of this legitimacy as much in time (going how far back into previous generations?) as in space (region, valley,...)? Or on the true contribution of the previous generation in the management of the resource: at which point, does the son of the immigrant grocer having grown up in contact with his father's shepherd customers have a more legitimate claim than the children of the same shepherds, who left the countryside to go and study in the town?

To take this further, in a very constrained environment, one should ask who, between "chance and necessity"⁴, is the really the preserver of a practice: man or animal. The one, acting on a knowledge, (acquired, confronted, modified, transferred, lost or improved) the other, the live carrier of a complex combination of genes at the level of:

- ⇒ the individuals by the relative autonomy of regulation in the competition between biological functions (in particular, arbitration production / reproduction),
- \Rightarrow the flocks (level of management under control of man and his practices),
- \Rightarrow the breed (authority conferred to an individual group to further, preserve or eliminate the characters on the scale of a whole population).

In other words, can one say that a goat, which avoids the fatal "*aconite*"⁵ which grows on the high plateaux of Cuscione (mountainous area traditionally used for putting the goats out to pasture in the summer), contributes as much to the preservation of its breed as the goatherd who gathers chestnuts for the goat to help it get through the winter, or who kills another goat for being too wild-spirited, or for having too white a coat?

At the end of this detour, we are thrown into the heart of the specificity of the collective management of a breed, for which **it is not a question of preserving an exact copy of a received heritage**, as fanatic, aesthetic conservatives would wish it. Here, the animal is a production tool that must ensure revenue. The project therefore becomes the construction of a representation which must combine the aesthetic and play aspects of the past, the ease of the present (alleviation of the immediate constraints), but also the improvements of the future that we may see, and those, sometimes contradictory, of the future we must pass on (rare are the projects which envisage the transmission of a diminished or deteriorated entity to future generations). This integration of the times, often difficult for an isolated individual, quickly becomes impossible in a collective dimension, clashing together a multitude of confrontations:

- \Rightarrow the same past but a different future according to the identification or technical dimensions,
- \Rightarrow the same present concerning the breeders' trade, but of distinct origins or cultures,
- \Rightarrow the « long-term », but with production systems which may, to stay feasible, have to manage ruptures with tradition (Pernet and Lenclud, 1978).

The collective currently is, and for an unknown amount of time, will be a very small group, indeed exclusive, displaying weak connections with a scattered set of breeders lacking in professional

⁴. In reference to the philosophy of Democritus and the humanism of Monod

⁵ (Aconitum napellus) Very toxic endemic plant in the grazing plateaux of Lower Corsica

structuring. This group, to move forward in its measure, will have to spend as much on the identification and recognition of its own members (legitimate) in the eyes of the other breeders as on the elaboration of a shared representation at the heart of the collective itself. And this legitimacy, far from coming to the collective from the first results, will even be threatened by the elitist differentiation of the group towards the others: *« who do they take themselves for, these scheme breeders? »*

4.4 - The legitimacy claims of the bearers of project

The search for legitimacy can lead to a real power struggle between the breeders likely to be involved in the projects (Flamant *et al.*, 1991). Notably between the breeders who, although stemming from a town environment, consider they have a legitimate claim, after more than twenty years in this profession, to become holders of the breed management project, and the sons of breeders who contest this claim to legitimacy.

This connection with legitimacy could have been noted at the time of the emergence of the UPRA ewe project, when the breeders, progressively united by the identification, technical or social dimensions of the project, gradually took over the legitimacy of its running, against the wishes of the elected consuls, legitimised by votes, but little inclined to imagination and change. Nevertheless, at the time of this emergence, it was obvious that all the individuals likely to participate in it were not all driven by the same goals, nor to the same stages of formalisation or conceptualisation of their expectancies. From the altruistic breeder to one completely committed to technical progress, if the idea (Judeo-Christian) of an improvement is often commonly shared, its content is rarely clear.

In 1996, Hugot, following a survey of the breeders interested in the breeding of the Corsican goat, suggested (Cf. figure 2) a typology of attitudes around 2 axes which distinguished the population almost homogeneously:

- Vertical Axis opposing an individual or collective vision of the action to take,
- Horizontal Axis separating those breeders holding a technical vision from those having a more existential or identifying objective.

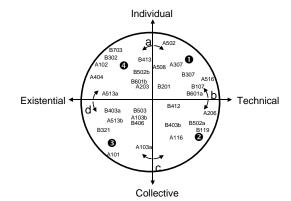


Figure 2: Typology of attitudes at the outset of the goat breeding project.

Under such conditions, it goes without saying that the dividing up of the representations does not automatically lead to a consensus. This consensus can not only therefore be decreed as established when the idea of a collective project is formulated. The repetitive loop of project construction, represented by phase 1 of our scheme, is a phase of intensive learning for the breeders. Difficult to set a timescale on it, this phase can even see the wearing out or the ousting of certain promoters of the project, who, having totally internalised or personalised the project, evolve at a different pace than other breeders and finish by isolating themselves from them.

A major « action » for the success of the project, and the clearing of the first obstacle, seems to us to revolve around the « objective judgement » on the qualification of animals, which the breeders must perform amongst themselves. The need to support each other in the interests of all concerned materialised at the heart of the sheep project in the qualifying rounds of the livestock. These rounds, benign in appearance, consisted in involving the breeders in the qualifying of the animals that come in the breeding centre. Beyond the necessity of a shared vision of what « a specimen » of the breed is, (this vision is very often consensual on what must be excluded), this qualifying means that members of the same body, must make, in the name of the community, a positive or negative judgement of fellow members *a priori* of the same competence and professional know-how. An over-lenient judgement might subsequently damage the credibility of the « judge », yet over-severity could be likely to provoke retaliation in a return judgement. The situation therefore demands and encourages a certain collective responsibility.

On the goat scene, the rare gatherings organised by the technicians with a view to set up a billy goat stud farm have always ended in bitter failure (billy goats turned down by the breeders, despite technical targets of achievement or health safeguards). On the other hand, on the pig scheme, at the heart of the mechanism is the visiting of current managing breeders to other breeders that hope to play a part in the management scheme. Indeed, a consent committee of reproductive sows goes to the drifts of swine in order to phenotypically assess animal candidates. The accepted sows are then registered in the annex register of the breed of that breed (on account of the absence of genealogy records). After the first rounds which started to allow the formation of a sizeable network, the Chamber of Agriculture decided, on their own initiative, to set up a conservation herd or drift, buying the sows selected by their technician and the boars selected from the first individual performance test. On the pretext of better controlling the technical aspects, we can interpret this decision as a possibility to end the obligation to pass through the managing breeders and their committee.

Thus, visiting other breeders could turn out costly on the relational level (to refuse animals is also to call a breeder into question). On the other hand, this opens up real prospects of bringing producers into the network, and this facilitates, through the confrontation *in situ*, the convergence of the representations. These are the prospects which, in the eyes of the directors of institutions, become dangerous as soon as they can no longer control them.

5 The partners and institutions

At its outset, the sheep scheme met with strong opposition from the development organisms that were already in place. They controlled the bonus system, linked to the finances of official dairy monitoring, so they were disgruntled to see the emergence of a new authority which would have the power and the right to claim the management of the deals. For several years our laboratory had to reinforce the emerging measure before it was equipped with suitable financing.

Paradoxically, the goat and pig schemes were immediately financially equipped thanks to national financial sources, intended for Corsican agriculture. These endowments, however, came to vastly increase the means of the two Corsican Departmental Chambers of Agriculture, the North Corsican Chamber of Agriculture being entrusted with the goat scheme, while that of South Corsica claimed the pig scheme. The departmental treatment of the schemes, where a *regional* treatment is necessary, represents a resource for the departmental institutions which know what can happen to such schemes through the sheep scheme experience. Logically, the financing of the projects, therefore, is a significant element for showing the adverse effects of an aid whose ultimate goal is the process for self-management.

5.1 - Premature financing

In its initial stage, a project inevitably has its needs - beyond that of activity - of conception and adaptation of methods. On the other hand, a financial contribution which is either too large, premature or badly placed, can, in generating leeway and covetousness, damage the structuring more certainly than a total absence of financing which is often filled by militant volunteer work. During the first eight years of the UPRA project, the derisory annual budget had to be snatched, in a manner of speaking, yet this contributed to set the will of the sheep breeders to gain a decent existence, and today, the turnover is ten times as large.

An annual financial input, of almost 10 time that the ovine in the beginning, however, which was given to the Departmental Chamber of Agriculture for Upper Corsica at the onset of the goat scheme, has contributed in creating a virtual dimension in which can be found the most unrealistic scenarios but also unbridled envy and greed, without allowing the emergence of the most rudimentary functional tools.

Within the pig scheme, an equally large amount of money was entrusted to the Departmental Chambre of Lower Corsica. This resulted in the regional association for Corsican swine management to become totally dependent on the Chambre for all technical or secretarial work. This form of control reduces the breeder's capacity to take initiative measures, which pulls them back down into the atmosphere of pervading fatalism.

5.2 – Delegating ones information system to an exterior operator

Another danger lies in the apparent lack of communication and information within these emerging organizations. Of course, such communication exists within the producers' network but remains difficult to tap into by the administrative and technical spheres (Bouche *et al.*, 1996). We thus observe a tendency towards a proliferation in the number of information centers, which is facilitated by the sophistication of information technologies. This phenomenon is born of the myth of an ideal interface between the different components of the system. Yet, delegating the functions of communication to a specialized operator brings with it two main problems:

- ⇒ Firstly, the information conveyed by this type of structure is of a public and communal nature, and as such is not very specific to the emergence of the project
- \Rightarrow And secondly, the new intermediary tends to adopt a strategy which can be detrimental to the project, and this to insure its own survival.

For example, the ovine UPRA project in Corsica appears to be mature enough to develop and subsequently entrust to a third party its technical or political information, which is intended for their members and partners. This project can, as of now, delegate the publishing of its information bulletin to an external organization which will follow its instructions. Conversely, for the emerging goat union "*a capra corsa*", the publishing of a bulletin is an indispensable tool for the development of goat breeder projects (paste-up, sorting of information). When trying to establish themselves locally, however, information centers for the ovine and goat sectors covet both of these publishing markets indiscriminately in order to obtain government financing. Although this can appear economically attractive, such an operation automatically thwarts the emergence of new functions within those organizations requiring the time to develop their own internal coordination and communication networks.

5.3 – Premature installation or ordered installation of regulation and administration systems

Once the coordination or administration of a project appears to be ineffective, it is not enough to simply decree, from the outside or in a premature manner, a schedule of conditions. To decree a law involves implementing a system of regulation and control, which requires a certain harmonization between the different partners beforehand. The break-up of an association is often observed following the first controls which are paradoxically supposed to protect the overall cohesion of the group. A long learning period, a number of compromises and the rewriting of the internal rules (often with no or very little change) has allowed the progressive maturation of a consensus between the different partners of the UPRA ewe project in Corsica. In other projects, in particular that of the Corsican goat, the local administration and decision makers of institutional development have had a tendency to rush towards the setting up of a regulation system, even at the risk of doing so in a very arbitrary manner. We thus see the emergence of a feigned consensus where each partner negotiates the greatest possible full freedom of action in order to continue operating according to his own rules.

5.4 – The technical aspects, interface for a driving force or instrument of power: a distinctive logic

Within the field of action described here, the importance of the technical actors is considerable. However, we must separate those actors who (cf. Fig 1), in the name of the state or a collectivity, are either backers or exercise control (regulation and maintenance of the system), from those responsible for technical action and coordination. Above, we discussed the activation temporality of the former. We must also examine the complex role that can be held by the agents of the technical bodies. Indeed, these are present within a triangulation of interests, embodied at its summit by three spheres:

- ⇒ breeders who are project holders and who will ask for both improvements in the techniques and guarantees for these techniques
- ⇒ the employer institutions, who will orient their personnel in directions that are often more political than technical
- ⇒ the specialized technical bodies from whom the technician will attempt to glean professional recognition, often to the detriment of the pace and reality of the field in which he works.

The ovine example has shown us to what extent, at the onset of a project, the initiation of a technical approach by the researchers (who take on the role of a technical institution) is well perceived by the technicians involved in the project. Indeed, these technicians are often disoriented by conditions where the socio-climatic constraints render the classical technical approach difficult. The incorporation of a technical aspect gives new life to the project (data collection, technical assistance) while at the same time demonstrating its utility insofar as the breeders are concerned. As the organization grows, the need to coordinate and nourish this technical universe (ex-situ of their original structure) appears as indispensable to the success of the project. A technical committee, composed of the technicians involved in the project, thus becomes a forum for the exchange of information and for the development of technical procedures for the ovine sector which goes above and beyond purely genetic considerations (animal health, nutrition, etc.). This forum can lead to the creation of interorganism groups. Consequently, this revision of the technical procedures (Choisis et al., 1996), which is taken on and controlled by persons concerned with obtaining good results, was perceived as a loss of control by the institutional employers. For the other species, we witnessed the precipitated establishment of technical committees, controlled by institutional structures, whose responsibilities involve the establishment and coordination of all technical procedures, and this in complete disaccord with reality and the development needs of the breeders. Within this warped context, the steps taken by the technicians brings them farther away from the field, from which they inevitably become disconnected. They fall back on an inefficient action policy, with actions that are highly visible and recognized by the political and institutional spheres but which only result in increasing the ineffectiveness of the aid given to breeding projects.

Conclusion

Although certain individual situations are promising, the development of collective organizations of breeders remains an obligatory step in a number of Mediterranean regions. Such organizations, however, cannot be decreed. They require a particular accompanying methodology which is based on the completion of a number of steps, which bring with them the apparition of new functions indispensable to the solidarity and network structure of participants within the collective management scheme.

The model based on ovine selection procedures is of value and allows the difficulties encountered during goat and sheep selection to be analyzed. Far from describing a unique venue of conduct for the collective projects, the model identifies the conditions of aid necessary to allow emancipation. In particular, this model indicates that the autonomy of the participants results from link **during the processes** which includes the conception of the object to be managed as well as the nature and means used in its management. Aid given to collective projects thus implies the implementing of **learning process**, the outcome of which is the autonomy of the producers with regard to researchers, technicians and administrative or political officials involved in these projects.

Through the analytical comparison of three schemes, we were able to identify certain undesirable effects of this aid which in fact become tutelages. In particular, we discovered that the institutions indulge their opportunism and desire for control by taking advantage of the breeder associations' weaknesses (lack of professional structures, limited experience in terms of management or collective activities), weaknesses that they thus contribute to maintain or even reinforce. In addition, a learning of these institutions, based on a successful autonomy of these associations, informs them what should not be allowed if they do not want the institutional scene to be modified to their detriment.

Consequently, the identification of dysfunctions and pitfalls associated with the processes currently in place is not to be perceived as the strengthening of an inhibitory and crippling fatality. On the contrary, the identification of these shortcomings should contribute to improving the focus of action for the different projects. It allows an identification of both the mobilizable resources by the local participants and the processes involved in this mobilization as well as the steps to follow to insure the greatest possible acquisition of these new action possibilities.

Bibliography

- Akrich M., Callon M., Latour B.,1998. A quoi tient le succès des innovations. Deuxième épisode : l'art de choisir les bons porte-paroles. *Gérer et Comprendre* sept 98 p 21
- Albaladejo Ch., Casabianca F., 1995. Une condition préalable à la participation : modifier les représentations des savoirs d'agriculteurs. Dossier : Recherches-systèmes en agriculture, Cahiers de la Recherche-Développement, 41, 44-57
- Atlan H., 1983. L'émergence du nouveau et du sens Colloque de Cerisy L'auto-organisation : de la physique au politique Seuil, Paris
- Audiot A., 1995. Races d'hier pour l'élevage de demain INRA Ed, Coll. Espaces Ruraux. 229 p.
- Bouche R, Casabianca F., Choisis J. Ph., Torre A., 1996. La raison a ses réseaux que le réseau ne connaît pas : savoir distribué pour l'intelligence collective d'une filière. *Information et innovation dans les filières dispersées* CIRVAL, Corte, France
- Bouche R, Hugot S., 1999. L'île des Bergers, Paradoxe d'une évolution figée entre reproductibilité et progrès, in « *L''île laboratoire* », Ed Alain Piazzola, Ajaccio, pp 175-187
- Boyer L., Sajous P., 1922, Sur l'amélioration de la race ovine corse. Office régional agricole du Midi. 3 :1-35
- Casabianca F., Vallerand F., 1994. Gérer les races locales d'animaux domestiques : une dialectique entre ressources génétiques et développement régional *Genet. Sel. Evol.* 26 Suppl. 1, 343s-357s
- Casabianca F., Poggioli A., Rossi J.D., Maestrini O., 1998. L'amorce d'une gestion collective de la race porcine corse. Construire un standard et élaborer les contrôles des reproducteurs. *IVth Symposium on Mediterranean Pig.* Evora (actes à paraître)
- Choisis J.P., Bouche R., Gambotti J.Y., 1996 Le rôle d'une macrotechnique dans la dynamique d'organisation d'une société pastorale, International symposium on the optimal exploitation of marginal mediterranean areas by extensive ruminant production systems, Thessaloniki, Grece EAAP Publication n° 83: 74-78.
- Coutron-Gambotti C., Casabianca F., de Sainte Marie Ch. Gandemer G., 1999. Références pour définir un produit typique : le jambon sec de Corse Cahiers d'études et de recherches francophones Agricultures, 8, 363-371
- Flamant J.C., Audiot A., Vallerand F., 1991. Les populations humaines gestionnaires des populations animales. In : Les exploitations agricloes et leur environnement. Essais sur l'espace technique et économique (Brossier & Valceschini Eds). INRA Versailles, 143-160
- Hugot S., 1996. Elaboration d'un schéma de sélection pour la chèvre corse : entre hasard et nécessité. Mémoire de DAA ENSA Rennes, 75 p.
- Lemoigne J. L., 1990. La modélisation des systèmes complexes Paris, Dunod
- Molénat M., Casabianca F., 1980. Contribution à la maîtrise de l'élevage extensif. Bulletin Technique du département de Génétique Animale. 32, 72 p.
- Mustar P, 1998. Les Chercheurs et L'innovation : Regards sur les pratiques de l'INRA. Ouvrage Collectif INRA/Ecole des Mines de Paris, INRA (ed), 84-115
- Pernet F. ,Lenclud G., 1977. Berger en Corse : Essai sur la question pastorale. Presse Universitaire de Grenoble, 190 p.
- Piaget J., 1972. Problèmes de psychologie génétique. Denoël, Paris, France, 174p.
- Saby C., 1996. Contribution à la conception et à la mise en place d'un schéma de sélection d'une race locale : le cas du porc corse. Mémoire de DAA INA-P.G., 68 p.
- Secondi F., 1999. Croissance, développement tissulaire et composition lipidique des tissus musculaires et adipeux chez le porc corse. Amélioration de la conduite alimentaire des porcs en élevage extensif méditerranéen. *Thèse de doctorat, Université Blaise Pascal, Clermont-Ferrand*, 144 p. + annexes
- Vallerand F., Casabianca F., de Sainte Marie Ch., Bouche R., 1994. D'une qualité à une autre : conduire le changement de système de qualification des reproducteurs de race ovine corse. *Etud. Rech. Syst. Agraires* Dev., 28 157-175