

Surname	REQUIER-DESJARDINS
First name	Denis
Mailing address	C3ED/UVSQ, 47 Bld Vauban, 78047, Guyancourt, Cedex
Country	France
e-mail	Denis.Requier-Desjardins@c3ed.uvsq.fr
Phone number	01 39 25 56 84
Fax number	01 39 25 53 00

### Summary

The theory of Common Pool Resources (CPR) deals mainly with natural resources even if some scholars of this current, such as Ostrom (1998), underline the fact that their analysis could apply to man-made CPR.

These scholars criticize the pessimism of the early contributions on the issue of collective action and common resources, such as Olson (1965) and Buchanan on clubs (1965). However, the literature on CPR emphasizes the role of group size and homogeneity in the efficiency or CPR management institutional devices. Moreover these early contributions did not focus on natural resources but on resources which could be the product of an human action, such as lobbying.

The importance of man-made, or produced, common resources should not be minimized, even when the focus is on natural resources and environmental issues. CPR management often has a local character, because natural resources are locally defined. But they can be linked to the production of local common resources, and also of private goods: this is what the concept of multifunctionality is all about.

This paper scrutinize the management of man-made or “produced” CPR, first in general an then by taking as a showcase the development in many rural areas of Latin America of local systems of activies geared towards the production of “traditional” food products and related activies. In this case “quality signals” can be considered as produced CPR.

**Key-words** : CPR, collective action, quality, Local agri-food systems, Latin America, multifunctionality

**Produced Common Pool Resources, Collective Action and sustainable local development: the case of food-processing clusters.**

*Denis REQUIER-DESJARDINS (C3ED UMR IRD/UVSQ)*

The three following points can be underlined as regards CPR (Common Pool Resources) governance and common property theory:

- We are dealing with a set of theories whose main concern is natural resources governance. This goes back undoubtedly to the seminal paper by Hardin (1968) on “the tragedy of the commons” which was concerned with natural resources. The growing emphasis on environmental issues since the seventies compounded this trend. Yet some, like Ostrom (1998), hint at the possibility that this CPR theory be actually also concerned with man-made common resources, even if their main concern remains natural CPR such as water, fisheries, forests, rangelands, etc.
- This set of contributions displays an ambivalent link with former contributions on the relationship between collective action and common resources such as seminal papers by Olson (1965) on collective action or by Buchanan (1965) on clubs<sup>1</sup>. On one side these former contributions rest on neo-classical mainstream assumptions while common property approaches, which take a more neo-institutionalist stance, question their pessimism on collective action achievements. Likewise club goods can be considered as polarly opposed to CPR, the latter being non exclusive<sup>2</sup> but rival beyond a carrying capacity threshold, and the former mostly non rival for club members, but exclusive. On the other side “Many conclusions of scholars of the commons, it can be argued, match closely the theoretical findings of the literature on collective action” (Agrawal, 2001): common property approaches underline that CPR governance rests in many cases on resource access control devices, or exclusion devices, designed and enforced by local communities; this capacity of control and exclusion is linked to the organisation of these communities, which include usually references to their size and social and cultural homogeneity. Two other points regarding these former

---

<sup>1</sup> We agree with Barillot (2003) that the theory of clubs should be regarded as a theory of collective action.

<sup>2</sup> That’s precisely the high cost of exclusion which accounts for “the tragedy of the commons”.

contributions must be underlined : first their relation to local public economics, through “fiscal federalism” approach by Tiébout (1956) or Oates (1972)<sup>3</sup>.; second the fact that they deal with man-made common resources such as for example lobbying capacities.

- One should not overlook the role of man-made, or produced, CPR even when she deals with natural resources and environmental issues. Since CPR often displays a strong local character, they are intertwined with locally produced common resources or public goods, as well as locally produced private goods which shares common characteristics with local public goods.<sup>4</sup> That is what agricultural “multifunctionality” is all about, when it is considered as a theoretical concept and not only as an argument in multilateral trade talks: agricultural or, better, rural production processes can jointly produce private and public goods, local or global, and for that reason have a part in the preservation of natural common resources.

Drawing on these premises this paper will unfold in two steps:

- First we shall endeavour to address the produced CPR issue by combining the former club goods and collective action approach with the latter CPR analyses. This will nevertheless entail a redefinition of club goods, in order to accomodate for the produced character of club goods.
- Second we shall focus on local rural food-processing clusters as a case-study for the two following reasons:
  - o Clusters in general, and rural clusters in particular, are good examples of collective efficiency achieved through the building of common pool resources for cluster members
  - o Rural areas and food-processing activities bear a specific link with natural resources which means that local specific assets, such as territorial quality signals, which can be considered as produced CPR display a link with natural CPR. We shall refer in particular to the concept of rural multifunctionality characterised by the joint production of private goods and public goods, some of them likely to be seen as CPR.

---

<sup>3</sup> According to Agrawal (2001) most of this research has typically focused on locally situated small user groups and communities and small size and well-defined boundaries stand as a characteristic of the resource system.

<sup>4</sup> Such as territorial quality, as stressed by Lacroix, Mollard and Pecqueur (1998) in their approach of a territorial “panel of goods”.

### ***I - The production of CPR, club goods and collective action***

In the original view of Buchanan club goods are related to a community of use, or a “consumption community” while in collective action theory the existence of a common set of preferences among members of the group will lower the incentive to free ride by broadening the range of common interest. It leads to the assumption of more or less common preferences in homogeneous clubs as a condition of efficiency of these clubs in the management of their club goods. Likewise CPR management refers primarily to the conditions of use (either open access or some sort of restriction) and the very definition of local communities in charge of the management of CPR implies to take into account their cultural or historical characteristics, that is to say their homogeneity as a group, which can allow for an assumption of homogeneous preferences.

However club goods are also produced. The result put forward by Tiébout (1956), regarding the trend towards homogenous local communities corresponding to a specific batch of local public goods, is a good illustration of that: local taxpayers are members of an homogenous “consumption community” of local public goods. However in this approach of “fiscal federalism” local government produces public goods and one can consider that there is an adequacy between the “consumption community” and the “production community”. For this result to be achieved. we have to assume that local government is democratic and therefore expresses the will of the homogenous community. Arguably a public choice approach which would account for a local bureaucracy could invalidate this assumption. The issue of the gap between “production community” and “consumption community” of club goods should therefore be raised.

This is also an issue if we assume that some CPR are produced : production processes entail the existence of a “production community” involved in the production process.

- In the framework of the model of the “tragedy of the commons”, these produced CPR should be considered on open access, but they would nevertheless be produced by an organisation or a group of individuals. This would obviously imply a gap between the production community, reduced to this group, and the consumption community asymptotically infinite.

- In the “common property” case, with exclusion and use rules enforced by local communities, there still remain the possibility of a gap between the group who uses the resource and the group who produces it. Moreover the management rules should also be considered as produced altogether with the resource, which complexify the production group issue.

For these reasons it seems useful to tackle the issue of production community in club good theory before turning to the case of produced CPR.

### *1) Consumption and production communities of club goods*

According to Barrillot (2003) “a collective good can be exclusive, more or less rival without obligation of use, and nevertheless be shared through a collective process of supply and consumption: the so defined consumption community is a club”. This definition raises however implicitly the issue of supply and, for that reason, of the supplying community. Barrillot claims that the theory of clubs is a theory of collective action, and it is certainly more so in the case of the production of the club good. This is why we have to embed the issue of the production of club goods in the framework of collective action.

One of the issues raised by the Olsonian theory of collective action, as well as Buchanan’s theory of clubs, is the issue of the optimal size of the group, or “club”, involved. As long as this size is not reached, the group is inclusive, meaning that possible new members will raise the level of utility of existing members. Beyond this size the group is exclusive, meaning that it is inclined to protect itself from the arrival of new members who would lower the level of utility of existing members. It does so either by total exclusion or by a compensatory entry levy. However such an analysis takes only into account the impacts on the utility function, which boils down to assume that the resource to be shared by club members has already been produced (or exists as a “natural” resource). Actually, in many cases, for example in the Olsonian example of a lobbying capacity, it is actually produced by the club. What will be the consequences of the acknowledging that club members are “technically” and organisationally bounded by a production function which can display indivisibility or increasing returns in the occurrence of network externalities?

In the theory of clubs, it is the size of the consumption group which determines the club nature of a specific good and the kind of interaction between club members. But in the case of

a produced club good the reverse relationship proves also true: the club, as a production community, will logically preexist to the club good it produces.

- The technological characteristics of the club good will determine the size of the group actually involved in its production: as an example the existence of a fixed cost in the case of increasing returns will entail a minimal size of the supplying group.
- The organisational relations between club members can also play a role, beyond the mere technological indivisibility: if the organisation is a group of individuals sharing a common objective and bounded by a set of rules, it is likely that it will build assets which will be non rival for the members of the organisation.

There is no reason *prima facie* why consumption and supplying groups should coincide. The Olsonian theory of collective action can accommodate this kind of situation as it reckons that collective action do exist when a member of the group bears the entire cost of the collective action because her individual benefit justifies from her point of view her investment: this is the case of Olson's "privileged group", in which the production of the collective good is profitable for at least one individual but the size of the group can hamper the control of consumption. There exists the possibility of a gap between the supplying group (potentially reduced to one) and the consumption group. In this case it is likely that the design of an exclusion device will be carried out by the supplying group and not by the consumption group, even if the latter benefits from the good.

## 2) *Produced and non produced CPR.*

Given that local communities in charge of the management of CPR are groups endowed with some sort of social and cultural homogeneity, the issue of the gap between communities involved in the production and consumption of CPR can also be raised.

The analysis of the forms of governance of natural resources threatened by "the tragedy of the commons" shows that local concerned societies or communities have been able to design control systems resting on the definition of access rights in a common property framework, thus excluding those who do not belong to these communities. However, taking into account the above analysis, we should raise two points:

- One cannot raise the issue of CPR without raising the issue the consumption community which defines their commonality. We can say, without extending too

much the scope of the concept, that the struggle against the tragedy of the commons seems linked to the definition of efficient clubs. Yet there seems to be a wide gap between a club and an entire community or society, but communities concerned by the tragedy of the commons are very often rather homogeneous local communities, the corresponding homogeneity of preferences in these communities compensating for their size.

- Moreover, inasmuch CPR management control systems are designed and “produced”, they are often linked to a productive activity: for example a rotating system of attribution of fishing places is linked to a production activity, fishing in this case. The resource preservation system is a joint product of this production activity and the natural resource, or at least its preservation becomes a “produced” resource
- Some produced devices may be necessary to make available the natural resource : for example, if an aquifer can be considered as a natural CPR, the pumping and irrigation systems that convey water to the point of use are produced.

As a conclusion, even in the case of natural CPR one cannot totally discard the issue or the production of common resources as CPR available for users are mostly, at least partly, produced.

The issue of the relationship between consumption community and supplying community do show up in CPR governance approach. It can be documented by an array of examples of collective action and local governance of natural resources.

Applying the privileged group model to the process of participatory governance of local natural resources (such as water, forests, etc.) leads us to raise the issue of the small group in charge of the production of the control and exclusion device, supposedly set up by local populations. This process could very well only concern a particular group for which the profitability of the device is high enough to induce them to invest in it.<sup>5</sup> This profitability is likely to be determined not only by the personal advantages retained by group members but also by their production cost, given their endowments in physical, human or social capital. But this analysis raises the question of whether the “production” group will be happy with a consumption group exceeding its own boundaries, and under what conditions.

---

<sup>5</sup> According to Platteau (2000) on the evolutionary path of changing common property institutions “Adjustment [...] may also involve decentralisation or reorganisation of societies along smaller and more homogeneous social groups or communities, delegating to them as much regulatory power as possible”.

Such an analytical pattern enlightens processes such as the transfer of management to local populations promoted by international organisations for example in the case of “natural protected areas”: in many cases it end up in the transfer to members of the elite groups of the local communities. It helps also to characterise the status of the various stakeholders in the case of conflicts of use: by example, in the case of subteranean water management, farmers can actually produce the conservation of an aquifer by changing their cultivation practices (for example reducing their level of use of agrochemicals), local residents for the most part only can demand it<sup>6</sup>.

The analysis of the gap between the optimal sizes of supplying and consumption communities of produced CPR protected by exclusion devices could be an analytical tool of real processes of participatory governance of these resources at the local level. In this case however, if the management of resources is a produced outcome, the resources themselves will be considered, at least partly, as “natural”. We must now turn to cases in which truly man-made CPR can be identified : the case of rural food-processing production systems will provide us with examples of such CPR among which the production of a common local quality image for processed food products.

## ***II) Local agri-food systems, collective efficiency, multifunctionality and CPR***

Local agri-food systems (LAS from now on) are local clusters specialized in food-processing and generally located in rural areas. They can be found in developed or developing countries and there is a number of examples which have been documented in Latin America (Requier-Desjardins, Boucher, Cerdan, 2003), in the wake of a concern for the developement of rural agro-industry.<sup>7</sup>

LAS enjoy a number of common characteristics with industrial clusters on which an abundant literature has developed since the “neo-marshallian” analyses (Beccatini, 1979; Piore and Sabel, 1984 ...) of “industrial districts”<sup>8</sup> or the definition of “innovative milieux” by GREMI scholars (Aydalot, 1986). One of the characteristics of this literature, for all its diversity, is

---

<sup>6</sup> Given the amount of aquifer water used for agricultural purposes and the amount of pollution by agrochemicals, the French water management systems known as SAGEs usually give an over representation to professional farmer organisations (Petit, 2002).

<sup>7</sup> This concern has been at the center of the action of PRODAR (*Programa de Desarrollo de Agro-Industria Rural*) set up By IICA (*Instituto Interamericano de Cooperación Agrícola*) – [www.prodard.org](http://www.prodard.org)

<sup>8</sup> According to Sabel (2001) clusters is the “business name” of industrial districts.



that it underlines constantly that the efficiency of clusters rests on collective “specific assets” in terms of social networks, innovation capacity and technological skills shared by cluster members. These assets can be considered as “man-made” common resources.

But LAS display also two specific characteristics :

- First they rely on agricultural inputs, mostly supplied at the local level, which means they have a close relationship with the local management of natural resources.
- Second they are part of commodity chains whose final product, food, has a high symbolic and identity content, given that it is the only consumption product we actually embody (Fischler, 1993). This gives a special role to the social building of quality as an attribute of these products. This process could lead to the design of quality signals, such as geographical, or other kind, of labels, which can be considered as a common pool resource for the producers, but also for the consumers who can freely access to the benefits of the information conveyed by the label.

We will first review the main conclusions of cluster analyses regarding the production of Common Pool Resources at the cluster level; we shall then address the specific case of LAS as regards production of CPR. We will stress in this case the link between produced and natural CPR as set up by the concept of multifunctionality.

### *1) Clusters, collective efficiency and specific assets as Common Pool Resources.*

We first have to identify the existence of man-made or produced Common Pool Resources in Clusters or “Local Productive Systems” and to scrutinize their process of production

The definition of the industrial district by Beccatini (1992) as “a socio-economic concept” can be a starting point. It stresses that the economic efficiency of an industrial district rests on the existence of social networks at the territorial level which provide local entrepreneurs with a common identity and a sense of trust in business relations. This allow for a situation of “cooperation-competition” between SMEs of the district and “flexible specialization” which enhances the capacity of the system to adapt to shifts in demand and growing variety. These social networks are man-made in the sense that they are product of history, not just industrial history but in many cases religious or political history. Likewise industrial districts are generally endowed with specific skills and know-how shared collectively by workers and

entrepreneurs of the district. This pervasive know-how is also the outcome of history and can be considered as man-made CPR.

Actually these CPR are accessible to the bulk of the local population: it would be quite costly to exclude some local residents of the sharing of the local Marshallian “industrial atmosphere” or “feeling of trust”. This boils down to saying that local “human capital” and “social capital” can be seen as CPR as well as local “natural capital”.

Of course, if these CPR are man-made since they are the product of human history, it does not follow that their formation through an evolutionary process can be likened to a production process in its own right. But the view of specific assets deeply rooted in the history of a determined territory has been challenged by other analyses of local productive dynamics. To document that we shall refer to the case of social capital as a basis for trust and to the analyses of clusterisation and declusterisation carried on by “global value chains” scholars.

Trust can be considered as an example of or man-made CPR produced through the building of social capital, since it is provided by networks of social relations and norms that are humanly devised social structures and constraints.

Social capital can be seen as built mainly by long-term, even historical, in some cases, processes. That is basically the view supported by Putnam (1993) whereby social capital is mainly defined as a societal public good resting on norms of behaviour and civic commitment in various associations, or even by Coleman (1988) whereby social capital is formed by the overlapping of deeply rooted social and cultural networks and economic ones (Requier-Desjardins 2003). However, along the lines set up by Bourdieu (1981), Ballet and Mahieu (2003) or Rubio (1997) social capital can be seen as an individual asset or a club asset, produced by a conscious process of investment, and for that reason not obligatorily beneficial for outsiders.

Similarly the approach of industrial district rooted in the historical characteristics of a territory has been challenged by new developments which insist on the ongoing processes of interaction between actors in a cluster as a basis for social capital and trust building : in this setting, trust is only a “functional trust” built by repeated interactions. Investments in social capital through the building of relations are carried on among groups involved in production activities. According to Platteau (2000) the building of trust by repeated interactions is only “feasible insofar as agents can acquire easily information about each other”. This condition is more likely to be satisfied when the agents are involved in the same

production process and their interaction is primarily linked to the achievement of this production process; in that case trust is really a joint product of the process<sup>9</sup>.

The two types of social capital can facilitate interaction between actors but the first one refers more at a preexisting “socio-cultural” resource open to many and the second one to a purposely crafted asset, exclusive for the group who builds it.

Scholars involved in the literature on the development of clusters in developing countries<sup>10</sup> (Schmitz, 1995; Nadvi and Schmitz, 1998; Bazan and Schmitz 1997, Altenburg and Meyer-Stamer, 1998 etc.) have stressed that the dynamic behaviour of clusters rests heavily on their level of collective efficiency. From this point of view the main divide is between “passive” agglomeration externalities, mostly pecuniary, stemming from forward and backward linkages at the market size level, and the building of specific assets through collective action.

According to Meyer-Stamer [1999], if passive agglomeration externalities can be found in all clusters even the less dynamic, collective action discriminates between the stagnant ones and the progressive ones. The progressive character of clusters relates to the way they are integrated to the commodity chains. Hence its tentative typology of industrial clusters in Latin America : “low-road” clusters merely enjoy passive agglomeration externalities and usually work for a local market. Import-substitution clusters enjoy a national market typically protected; they have developed a level of collective efficiency regarding the creation of common assets or the exchange of relevant information but this efficiency is challenged in case of external liberalisation. Export-oriented “high-road” clusters have developed a high level of collective efficiency within global value chains. In this framework, the setting up of vertical linkages with other stages of “global value chains “ can improve the efficiency of the cluster but also lead to a process of “declusterisation”, inasmuch as vertical linkages get stronger than horizontal linkages at the cluster level.

The likelihood of the building of specific assets raises the issue of the existence of produced CPR at the cluster level but it downplays the role of common specific assets rooted in history. On the contrary the process of collective action can translate in the building of specific assets by groups of actors inside the cluster and the marginalisation of other groups, despite the initial sharing of the same socio-cultural identity. Bazan and Schmitz (1997), in the case of the

---

<sup>9</sup> By example trust is an expected joint product of the production of financial services by microcredit schemes such as ROSCAs (Anderson, Locker and Nugent, 2002).

<sup>10</sup> These scholars are mainly from the Institute of Development Studies (IDS) at the University of Sussex or from the current of analysis of the “global value chains” (Gereffi, 1998)

Brazilian shoe cluster of Dos Irmaos, show the importance a the initial stage of the ethnic-german networks and skills, but also their fading away in front of new professional networks. Such processes have also been spotted in showcase Italian industrial districts. In clusters the building of specific assets and the management of these common resources appears more and more like a contingent process. The homogeneity of the cluster or its variety, as well as the size of the groups involved in this process are the relevant factors. Man-made CPR, including the level of trust, appears more and more like produced club goods at a functional level and less like an historical heritage.

## *2) LAS, CPR production, the “panel of goods” and multifunctionality*

As clusters LAS are likely to display cluster characteristics as regards the role of collective action and the building of local specific assets.

A typology of LAS according to their capacity to evolve and develop should be designed somewhat differently of the one proposed by Altenburg and Meyer-Stamer [1999], basically because food commodity chains are not only buyer’s driven but at least partly “consumer’s driven”, whenever the cognitive assessment of the quality of the product by the consumer plays a role. One of the main specific asset enjoyed by LAS, and moreover one that can be enhanced by collective action is the cognitive proximity with the consumer. The collective action of promotion of the product, for example through a process of labellisation and certification, could be a criteria for dynamic LAS. Moreover the ability of LAS units to diversify and specialise is a condition of their evolution towards more complex and efficient forms.

Various examples of LAS in Latin America provide evidence about the existence of passive externalities as well as collective action in relation to their integration to food commodity chains.

First “passive” agglomeration externalities can be clearly identified in LAS, as shown in various case-studies (Cerdan, Sautier, 1998; Boucher Requier-Desjardins, 2002) :

- The concentration of producers allows for the existence of input and equipment suppliers as well as the existence of specialised traders and carriers. In a cheese cluster around the small town of Nossa Senhora da Gloria in the Brazilian Northeastern state of Sergipe, where a supplier of equipment have thrived by supplying ovens and recipients for hot water to a clsuter of small production units known as “fabriquetas”. Like wise there exist a

group of traders and carriers specialised in cheese who deliver the local production of cheese to the markets of the neighbouring city of Aracaju as well as more distant ones of Bahia.

- Second there exist wholesale markets where producers, middlemen, carriers, inputs suppliers can meet, which facilitate transactions and allow for the availability of specific inputs and products : such are the fair and marketplace in Chanta Alta and Bambamarca in the Cajamarca cheese-producing region in Peru : these markets concentrate the production of *quesillo* (curds) to be bought by traders supplying the production units of a traditional cheese, *queso mantecoso*; In *panela*<sup>11</sup> producing areas in Colombia, traders can operate on the basis of the concentration of production in some areas of the country (such as the Rio Suarez basin, north of Bogota, where more than 30% of the national production capacity of *panela* is concentrated) on wholesale markets such the *panela* market in Villeta (Colombia) where traders supplying Bogota and producers meet, or the market for Gloria cheese in Sergipe.

These passive agglomeration externalities stemming from forward and backward linkages can contribute to the building up of specific assets through diffusion of relevant information or visibility of the product. However they turn out to be irrelevant to secure the quality of the products : for example in Chanta Alta the lack of trust between producers and traders, coming from two different cultural environments and levels of endowments, entails a typical “market for lemons” situation (Akerlof [1970]), where poor quality *quesillo* is more likely to be traded than high quality one.<sup>12</sup> There is a collective action failure due to the heterogeneity in terms of interests of sellers and buyers which entails a lack of trust.

But specific assets resting on the network of relations between actors can also allow for the setting up of institutions which enhance the common interests of LAS producers. This element of collective action is likely to set up a criterium between stagnating LAS resting on “passive” agglomeration externalities and dynamic LAS.

Producers associations, as examples of collective action, have effectively emerged in Gloria (Sergipe) and Cajamarca (Peru); in both cases they manage common resources such as a lobbying capacity towards local authorities, access to technological support, common

---

<sup>11</sup> *Panela* is a “traditional” sugar processed by evaporation of sugar cane juice instead of centraifugation. The product retains as a consequence a better nutritional quality. Colombia ranks second in production (behind India) and first in per capital consumption.

<sup>12</sup> This vindicates Bianchi [2001] when he stresses that food-processing clusters which develop collective action are often those which have developed strong proximity linkages with agricultural production.

marketing facilities, quality labels. In Barbosa, one of the main panela-producing areas in Colombia, CIMPA, an interface structure with CORPOICA, the national agricultural research centre, has diffused the upgraded *hornilla* (oven) technology, which seems to have played a decisive role in shaping collective action. Upgraded *Hornilla* technology represents in this case a true produced CPR which can be adopted by all *paneleros* who wish to do it.

In the case of LAS however there is a class of specific assets which stems from the two links we have pointed at, the link with natural resources through agriculture and the link with the consumer which bears on the definition of quality. These two links achieve a profound meaning at the territorial level.

First agricultural production appears in a number of ways to be a joint production of private goods and, to various degrees, of public goods such as landscape or the preservation of biodiversity. Of course this is not granted in every case as some forms of intensive agriculture can be very damaging for environment (pollution of aquifers or soils), biodiversity (concentration on a small number of animal and crop varieties) or landscape (destruction of hays or forest) etc. But some agricultural practices can foster the preservation of the environment : agricultural biodiversity has been managed for ages by agricultural producers, as shown by the huge amount of species which are managed by traditional forms of agriculture. This is the basis for the definition of “multifunctionality of agriculture”. But this multifunctionality cannot be disentangled of the entire array of activities which are performed in rural areas, inasmuch as they are linked to agriculture (food-processing) or they use the same inputs (ecotourism resting on landscape and biodiversity). There can develop a situation in which a common image of quality will be enjoyed by a panel of public (landscape, cultural amenities) and private goods (typical food products), jointly produced on a territory: this image is therefore a common resource for those living in the territory, whether food producers, owners of tourism facilities or even local residents (Lacroix, Mollard and Pecqueur, 2000).

Second, the social building of quality rests on the way consumers assess food quality in a situation of asymmetric information and uncertainty due to the great amount of experience or credence attributes of food products. Among the attributes favoured by consumers, stand the “natural” character of the product, its cultural identity content and its traceability, especially for products who have a symbolic value. The geographical origin can be considered as a proxy for quality, as long as there is a sense of trust towards food-processing practices in a definite area.

We would like first to show that the capacity for collective action is not only the consequence of an historical pattern of the building of social capital, but that its efficiency depends on a process of production tightly linked with the production process of the product itself. We would then like to focus on a specific case of produced CPR, quality signals : if they are widely acknowledged and trusted by consumers they can be considered a Common Pool Resource for food producers and, in a way, for consumers too; moreover in the case of agro-food commodity chains, they can express a link with natural resources.

The case of cheese production in the area of Cajamarca in Peru is a good example of the link between social capital and collective action. This area specialises is the only Peruvian dairy production area which has developed, along with the supplying of TNC with milk, a specialisation in cheese production.: there are a number of different clusters of small cheese producing units in various sub-areas or dairy production basins; they process approximately a third of the total milk production of the area. The two most significant basins are the Cajamarca basin around the city of Cajamarca and the Bambamarca basin around the town of Bambamarca, more isolated and less important than Cajamarca. Both areas have witnessed since 1998 the emergence of local associations of cheese producers trying to promote the market access of their product.

In the case of Bamabamarca the association (*Asociación de Productores de Lacteos*, APL) is an emanation of the *Rondas Campesinas*, traditional rural vigilante groups which have been used by the government to fight against the Shining Path guerrilla. They are particularly strong in the area, which prevented the Shining Path to enter the area. The emergence of this association has been relatively easy, as well as is the enforcement of rules, given these strong links between members. But the efficiency of collective action appears quite low. Turning away from the production of “typical” cheese, the area has specialised in *queso fresco*, a low-quality cheese sold to low-income customers in Lima suburbs. The collective asset they have created is a collective outlet in Lima to sell their cheese but they have not moved towards a higher quality (actually the local production of typical *queso mantecoso* has dwindled). The innovative members of the group who want to promote quality tend to develop individual strategies.

On the contrary, in Cajamarca, The APDL (*Asociación de Productores de Derivados Lácteos*) has been set up by a group of small entrepreneurs running cheese production units and shops concentrated in the city center. They cater to a market of local visitors to the area and consumers in large cities, buying in specialised markets or supermarkets. There was not a

previous social network between them beyond a loose acquaintance due to the fact that they live in the same city and have been to the same schools (most of them are educated at a high school or even local university level). The network and the corresponding trust have been built within the production process itself. It has suffered setbacks at the beginning and has been favoured by the existence of a booming market due to the development of Cajamarca but it has achieved results: it has concentrated on the building and control of a quality label, associated with a set of commitments. It has also lobbied the city council in order to rein in the informal sellers of cheese.

Social capital and trust seems therefore to be more efficient when they are “functional”, built in the production process itself, i.e. produced along with other common assets.

Product certification, through quality labels, guarantees product characteristics in line with the objectives of sustainable development, either environmental (organic food, ecolabel) or social (fair trade) or even linked to geographical origin, as in this case regulation provides for environmental dispositions (protection of traditional variety, maximum yield authorised, protection of rural landscape...).

Labels have already been characterised as club goods (Torre, 2000). We can therefore raise the issue of the link between production and consumption of such club goods. They are deeply intertwined because a label is a service (it signals quality) and because of increasing returns and network externalities which depend on label notoriety. In this approach users of the club good are those who are to benefit from this guarantee, enjoying a better acceptance of their products on the market and a higher price. In this case consumption and production communities are homogeneous and the group is highly exclusive, given that the extension of the label to the entire production would jeopardise the very idea of a quality label. But we can also consider that consumers are part of the consumption community of the label, since it provides them with valuable information: in this case however the group is rather inclusive, as new consumers don't lower the level of utility associated with the label, and rather heterogeneous, as it gathers producers and consumers. In some cases the geographical origin of the product may play a prominent role as it is associated with its quality: the quality is related to production skills associated with a certain type of inputs but also with a certain territorial know-how and a strong identity component of the product for the area.

In the case of LAS collective action can particularly focus on the management of the specific consumer- product relationship which governs the assessment of quality: as we have seen, the APDL (*Asociación de Productores de Derivados Lácteos*) of Cajamarca is trying to promote a



trademark for the cheese of Cajamarca; similarly CIMPA is promoting new packaging and conditionment for *panela* and tracing back of the product and also supporting efforts made by some producers towards the certification of organic *panela* for exportation or for the Bogota market.

This kind of collective action on quality must however, as Bianchi [2001] showed in the case of Southern Italy, be carried out jointly not only by food-processing and marketing units but also by agricultural producers, all these actors producing and managing common assets (or “club goods”) such as quality labels for example. This is particularly clear in the case of Cajarmaca *queso mantecoso* whose quality can be hampered by the poor quality of *quesillo*<sup>13</sup>, but also in the case of organic *panela* in Colombia which entails not only the implementation of CIMPA-supported innovation in *hornillas* but also an organic agricultural process without agrochemicals, currently only developed in some areas.

The overall economic environment bears on the capacity of production of CPR in LAS. Agrawal (2001), dealing with “natural” CPR, signals that the characteristics of the resource must be integrated to the set of criteria that will determine the efficiency of various institutional management of common property. It is even more so when we deal with produced CPR. the form of the production function is obviously a relevant characteristic as regards the efficiency of its management: the fact that these resources display highly increasing returns because of networks externality imply a very tight control of their production, for example to avoid any lowering of the quality requirements of a label which would entail a risk of suspicion on this label. Actually increasing returns based on network externalities entail that any suspicion about the characteristics of the CPR can trigger a reverse effect and jeopardize it very rapidly: produced CPR are even more at risk because of free-riding, than “natural” CPR. Likewise the impact of markets and technology which change income opportunities is even wider in the case of produced CPR as it encompasses the productive linkages between CPR production and the production of a local “panel of goods”, as well as the impact of the integration to a global value chain. The role of the state can be also very important, as regulatory environment can hinder or enhance the capacity of production of this kind of CPR. Our case-studies vindicate this claim.

---

<sup>13</sup> The most recent developments in the area feature the building of networks or peasant suppliers of quality *quesillo* by the producers-sellers of Cajamarca involved in the APDL and the constitution, geared by NGOs, of a larger association, CODELAC which regroups the various categories of actores involved in cheese production.

First the capacity of LAS to be integrated in global food commodity chain is a crucial element of their resilience and of their contribution to development. At first sight most Latin American LAS are not yet really part of global commodity chains, in some cases because they process products which are typical of national food habits, such as *panela*, in others because their activity looks marginal in a sector controlled by transnational firms : so are the various cheese-producing LAS, which often process the milk which has not been collected by TNC (like in Cajamarca). But these LAS, at least the largest ones, enjoy a national market with a territorial image of their product, and they are developing collective action in order to improve their presence in the market. In some cases they are even considering exportation. Moreover they are impacted by changes in retail and particularly by the steady rise of the market share of chains of supermarkets often owned by TNC (Reardon, Berdegue , 2002): cheese makers of Cajamarca for example must now secure their outlets in Lima supermarkets, through the enforcement of norms regarding hygiene and packaging: the pressure of Global commodity chains is increasingly felt. Similarly if the commercialisation of *panela* is characterised by the search for new markets and new conditioning: new presentations in cubes or powder, targeting high income consumers, do often bear the mention of a territorial origin. There exist some tentative exports of *panela*, as an organic product, to European Union, with certification of the product at the different stages of the production process. There is also a steady stream of exportation towards Colombian and Latino diaspora living in the United States. Even in the case of Gloria in Sergipe, it seems that the territorial origin of the product is acknowledged by consumers outside the area, in Aracaju, capital of the state, or even in Salvador de Bahia or Recife.

Second the structure of the local markets and the kind of link the concerned activity develops with other local activities may have an impact on collective action, especially when there are common assets which are shared by various activities. This is the case of the “quality image” in the “panel of goods” model developed by Lacroix, Mollard and Pecqueur (2000). This model seems to apply to Cajamarca. the empirical importance of quality guarantees of Cajamarca cheese is also secured by the existence of short distribution circuits, aimed at catering to tourists (mainly national) who flock to the city during festive summer period: the APDL organises cheese fairs in this period. In their shops its members sell other products typical of the area (traditional cookies and chocolate, honey, etc.). Conversely Cajamarca is known throughout the country, and especially on the huge urban markets of Lima or Trujillo.

as a cheese-producing area which enhances its image of a traditional *Sierra* area with natural and cultural endowments.

### ***Conclusion***

We would like to emphasize three conclusions we think we have reached.:

If the conditions of an efficient common property matches the ones which had been put forward by the original theory of clubs and collective action, the introduction of produced CPR blurs further the line between CPR and club goods, inasmuch as one has to raise from the beginning the issue of the production process and therefore of the group involved in production. This group must share a common interest, be organized and at least minimally exclusive, whatever the openness of the access to resource use.

Second, natural CPR cannot be disentangled easily of produced CPR, because in many cases only produced CPR can convey the natural resource to the users and because institutional devices in the management of CPR can be considered themselves as CPR.

Third taking into account produced CPR, such as quality signals in the production of “typical” food products, reinforce the necessity to characterise the economic environment in order to identify efficient forms of CPR management. This is due to the fact that CPR are jointly produced with private goods, according to the multifunctionality and “panel of goods” model. The institutional environment of the production process (such as the general reliability on labels for example) is paramount as it is in a sense part of the CPR itself.

### **References :**

AGRAWAL A. (2001) : Common property institutions and sustainable governance of resources, **World Development**, 29-10, pp 1649-1672

AKERLOF (1970): The market for lemons, quality uncertainty and the market mechanism, **Quarterly Journal of Economics** Volume 84. p 488-500

ALTENBURG, T. MEYER-STAMER, J. 1999 : How to Promote Clusters : Policy Experiences from Latin America, **World Development**, 27-9, 1693-1713.

ANDERSON C. L., LOCKER L., NUGENT R. (2002): Microcredit, Social Capital, and Common Pool Resources, **World Development**, 30-1, p 95-105.

- AYDALOT P. (1986): Trajectoires technologiques et milieux innovateurs, in **Milieus innovateurs en Europe**, GREMI, 1986
- BALLET J., MAHIEU R. (2003) : Le capital social, mesure et incertitude du rendement, **Regards croisés sur le capital social** (BALLET, GUILLON ed.), L'harmattan, Paris
- BARRILLOT S. (2003) : **La théorie des clubs, une redéfinition du principe coopératif**, PhD, Université de Versailles Saint Quentin, July 2003
- BECCATINI, G. 1979: Dal settore industriale al distretto industriale, **Rivista de economia e politica industriale**, vol. 5, n°1, 7-21.
- BECCATINI G. (1992) : Le district marshallien, une notion socio-économique, in BENKO G, LIPEITZ A., **Les régions qui gagnent**, PUF, 1992.
- BIANCHI, T. 2001 : With and without cooperation : two alternative strategies in the food-processing industry in the Italian south, **Entrepreneurship and Regional Development**, vol. 13, n°2, 117-145.
- BOUCHER F., REQUIER-DESJARDINS D. (2002) : La concentration des fromageries rurales de Cajamarca : enjeux et difficultés d'une stratégie d'activation liée à la qualité, paper presented at the SYAL international conference, Montpellier, October 2002
- BOURDIEU P. (1985) : The forms of capital, in Handbook of theory and research for the sociology of education (Richardson, ed.), New York, Greenwood, p 241-258
- BUCHANAN J. (1965) : An economic theory of clubs, **Economica**, 32 (125) pp 1-14
- CERDAN, C., SAUTIER, D. 1998 : Systèmes localisés de production de fromage au Nord-Est du Brésil : le cas de Gloria (Sergipe), Communication presented to the workshop « Réseaux locaux d'entreprises agroalimentaires : règles d'action et critères d'évaluation dans les dynamiques territoriales, INRA-SAD/CIRAD-TERA/CNEARC, October 1998.
- COLEMAN J. (1988) : social capital in the creation of human capital, **American Journal of Sociology**, 94, S95-S120
- FISCHLER C. (1993): **L'omnivore**, Seuil
- LACROIX A., MOLLARD A., PECQUEUR B. (1998) : A meeting between quality and territorialism, paper presented at the 2<sup>ème</sup> ESEE conference "**Ecological Economics and Development**", Geneva, March 1998

- MEYER-STAMER, J. 1998 : Path Dependence in Regional Development : Persistence and Change in Three Industrial Clusters in Santa Catarina, Brazil, **World Development**, 26-8, 1495-1511.
- NADVI, K., SCHMITZ, H. 1999 : Clustering and Industrialisation : Introduction, **World Development**, 27 – 9, 1503-1514.
- OATES W. (1972): **Fiscal Federalism**, Harcourt Brace Jovanovich, 1972
- OLSON M. (1965) **The logic of collective action**, Harvard University Press, 1965
- OSTROM E (1999) : **Coping with the tragedy of the Commons, workshop in Political Theory and Policy Analysis**, CSIPEC, Indiana University, Bloomington.
- PLATTEAU J.-P. (2000) : **Institutions, social norms and economic development**, Harwood academic publishers, 2000.
- PUTNAM R. (1993): **Making democracy work: civic traditions in modern Italy**, Princeton, Princeton University Press.
- PETIT Olivier (2002): **De la coordination des actions individuelles aux formes de l'action collective: une exploration des modes de gouvernance des eaux souterraines**, PhD, Université de Versailles Saint Quentin en Yvelines, December 2002.
- PIORE M., SABEL C. (1984): The great industrial divide
- REARDON T., BERDEGUE J (2002): the rapid rise of supermarkets in Latin America: challenges and opportunities for development, **Development Policy Review**, 2002 20-4, pp 391-388
- REQUIER-DESJARDINS D., BOUCHER F., CERDAN C. (2003) : Globalisation, competitive advantages and the evolution of Localised Agri-food Systems in Latin America, **Entrepreneurship and Regional development** 15-1, Januray-march pp 49-67.
- REQUIER-DESJARDINS D. (2003): Le capital social dans la théorie économique : actif privé ou bien public ? le point sur quelques contributions récentes, **Regards croisés sur le capital social** (BALLET, GUILLON ed.), L'harmattan, Paris
- RUBIO M. (1997) : Perverse social capital, some evidence from Colombia, **Journal of Economic Issues**, 31-3, September
- SABEL C.F. (2001) : Diversity, Not Specialization: The Ties that Bind the (New) Industrial District, Paper presented to **Complexity and Industrial Clusters: Dynamics and Models in**

**Theory and Practice**, Conference Organized by Fondazione Montedison Under the Aegis of Accademia Nazionale dei Lincei Milan, June 19-20th, 2001

SCHMITZ, H. 1995: Small Shoemakers and Fordist Giants : Tale of a Supercluster, **World development**, 23-1, 9-28.

SCHMITZ, H. 1998 : Responding to Local Competitive Pressure : Local Co-operation and Upgrading in the Sinos Valley, Brazil, IDS working paper 82.

TIEBOUT C. (1956) : A pure theory of local expenditures, **Journal of Political Economy**, 64-5, October 1956, pp 416-424

TORRE A., 2000. Economie de la proximité et activités agricoles et agroalimentaires : éléments d'un programme de recherche. *In* **Revue d'Economie d'un Régionale et Urbaine**. N° 3, 2000