



Dairy organizations in the eastern basin of Uruguay and the development of the sector

Las organizaciones lecheras de la cuenca este de Uruguay y el desarrollo del sector

As organizações leiteiras da bacía oriental do Uruguai e o desenvolvimento do setor

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Abstract

In recent years, Uruguayan dairy has seen significant growth and development. From the territorial point of view, this has shown different intensities. The non-traditional basin of eastern Uruguay, consisting of the departments of Lavalleja, Maldonado and Rocha, showed lower levels of development compared to other areas of the country. This asymmetry would be influenced, at least partially, by weaknesses of the dairy producer organizations present in the eastern region, as they represent collective instruments of support, promotion and defense of the interests of the sector. The objective of this study is to analyze the structure and characteristics of these organizations and to inquire about the causes that limit dairy development in the region. The conceptual framework is based on the vision of social capital as a contributing factor to productive, economic and social development. The research was carried out between 2015 and 2017, and consisted of collecting primary information through semi-structured surveys and consulting secondary information. The results show that dairy producer associations have small social mass, low levels of partner participation and a low degree of articulation and cooperation with other entities of the local and national environment. In general terms and in a broad sense, there are weaknesses in the regional social capital related to dairy, which helps explain the relative lag of the sector in this region compared to the traditional basin.

Keywords: non-traditional basin, dairy associations, social capital

Resumen

En los últimos años la lechería uruguaya tuvo un crecimiento y un desarrollo significativos. Desde el punto de vista territorial, esta manifestación mostró diferente intensidad. La cuenca no tradicional del este del Uruguay, constituida por los departamentos de Lavalleja, Maldonado y Rocha, evidenció niveles inferiores de desarrollo respecto a otras zonas del país. Esta asimetría podría estar influenciada, por lo menos parcialmente, por debilidades de las organizaciones de productores lecheros presentes en la región este, en tanto representan instrumentos colectivos de soporte, promoción y defensa de los intereses del sector. El objetivo del trabajo es analizar la estructura y las características de estas organizaciones, e indagar sobre las causas que limitan el desarrollo de la lechería en la región. El marco conceptual se basa en la visión del capital social como factor coadyuvante del desarrollo productivo, económico y social. La investigación se realizó entre los años 2015 y 2017, y consistió en el relevamiento de información primaria a través de encuestas semiestructuradas y la consulta de información secundaria. Los resultados muestran que las agremiaciones de productores lecheros cuentan con reducida masa social, escasos niveles de participación de los socios y bajo grado de articulación y



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cooperación con otras entidades del medio local y nacional. En términos generales y en sentido amplio, existen debilidades en el capital social regional relacionado con la lechería, lo que contribuye parcialmente a explicar limitaciones en el desarrollo del sector.

Palabras clave: extracuenca, agremiaciones lecheras, capital social

Resumo

Nos últimos anos, o laticínio uruguaio teve significativo crescimento e desenvolvimento. Do ponto de vista territorial, esta manifestação mostrou intensidade diferente. A bacia não tradicional do Leste do Uruguai, formada pelos departamentos de Lavalleja, Maldonado e Rocha, apresentou níveis de desenvolvimento mais baixos em comparação com outras áreas do país. Esta assimetria seria influenciada, pelo menos parcialmente, pelas fragilidades das organizações de produtores de leite presentes na região leste, visto que representam instrumentos coletivos de apoio, promoção e defesa dos interesses do setor. O objetivo do trabalho é analisar a estrutura e as características dessas organizações, e indagar sobre as causas que limitam o desenvolvimento da pecuária leiteira na região. O marco conceitual é baseado na visão do Capital Social como fator contribuinte para o desenvolvimento produtivo, econômico e social. A pesquisa foi realizada entre 2015 e 2017, e consistiu na coleta de informações primárias por meio de pesquisas semiestruturadas e consulta a informações secundárias. Os resultados mostram que as associações de produtores de leite apresentam uma pequena massa social, baixos níveis de participação dos associados e um baixo grau de articulação e cooperação com outras entidades a nível local e nacional. Em termos gerais e de forma ampla, existem fragilidades do Capital Social regional relacionadas com os produtos lácteos, o que ajuda a explicar a defasagem relativa do setor nesta região em relação à bacia tradicional.

Palavras-chave: bacia não tradicional, organizações leiteira, capital social

1. Introduction

Dairy production is one of the most weighted agricultural activities due to its high dynamism, its significant contribution to economy and production, and job generation. Its insertion in an agro-industrial chain contributes to adding value and reproducing the aforementioned virtues, in a process that converges mostly in placing products in the external market as a stimulus and promotion of the sector. It represents the main source of income for 10% of the country's farms, being mostly family-type. The characteristics of primary production favor the establishment of families on farms and stimulate the social and economic development of the territories where it occurs.

Between 2002 and 2013, the milk volume submitted to industrial plants increased by 82%⁽¹⁾, unprecedented for the country. Geographically, Uruguayan dairy production is concentrated in three departments (Colonia, Florida and San José), which represent two-thirds of the national volume, and the main eight departments contribute 90% of production⁽²⁾. These make up the so-called traditional dairy basin, historically the main territorial base of Uruguayan dairy. However, there are other regions referred to as non-traditional or "extra-basins", some even as old as the others, but which have not managed to express and consolidate the development of this production at the national level.

Particularly, the eastern region of the country, made up of the departments of Lavalleja, Maldonado and Rocha, shows relative lags in this regard, despite having adequate natural resources, property scales, infrastructure (electricity, roads, services), dairy industries and some geographical proximity to the prevalent basin. In the last inter-census period, between 2000 and 2011, this region reduced by 47% the number of dairy farms submitting to industrial plants (from 180 to 96), while this indicator showed a fall of 10% in the country (from 3557 to 3209)⁽²⁻³⁾. In the eastern zone, only 22.4% of the properties sell raw milk to individuals (33 of 147), although it may not be the only marketing channel, while in the traditional basin, it is less than 5%⁽²⁾. This highlights the greater relative informality of dairy in the first case, and suggests weaknesses and disagreements in the integration degree of the productive and industrial phases.

This region represents 3.3% of the total commercial dairy farms in the country, 5.4% of the area allocated to this activity and 4.8% of national production⁽²⁾. Table 1 shows the number of commercial dairy farms, the ones submitting to industrial plants, the dairy area and the total volume of milk produced in the 2011 census year, in the eastern region of the country, the rest of the country and the national total.



Table 1. Number of farms with commercial dairy and submitters, operating area and dairy production in the census year

	Commercial farms	Submitters	Area (has)	Production (liters)
East region	147	96	54,887	85,824,807
Rest of country	4,327	3,113	953,116	1,694,321,791
Country total	4,474	3,209	1,008,003	1,780,146,598

Source: CGA 2011⁽²⁾

Several causes would explain the relative lag in the dairy development of this region. These include difficulties in accessing inputs, machinery services and specialized technical assistance, and a context of low-density of dairy farms. In this regard, a scarcely analyzed aspect is the incidence of producers' organizations as instruments of integration, assistance to production, protectors of their interests and promoters of the sector's growth and development. Historically, Uruguayan dairy has always been marked by a strong imprint of organized collective efforts as a central factor in the strengthening and development of the different basins.

These groups present heterogeneities in the different territories in terms of characteristics, integration, structure, participation, services, management and articulation with other entities. Being part of dynamic and solvent trade unions would enable better conditions for the performance of their activity, for facing adversity and capturing opportunities. Regarding this, the external support that farms receive represents a differential value, an attribute that is extensive for the entire basin of influence. Farms with structural limitations, such as low surface scale or lack of machinery, could eventually find fundamental support in the unions¹.

Manifestations of dairy organizations can be observed in multiple ways, such as support for production (agricultural machinery, inputs, rearing farms, forage and wet grain operations, "dairy bank", traceability), management, administration, technical advice (agronomic, veterinary, accounting, legal, labor), assistance in contingencies (drought), training, social services, health services, defense of union interests and alliances with other entities. They

¹ An example of the traditional dairy basin is the Florida Milk Producers Society (SPLF by the Spanish acronym), which has a variety of management and production support and advisory services (accounting, legal, notary, administrative, agronomic and veterinary), livestock traceability, agricultural machinery (13 tractors, 6 direct seeders, sprayers, tillage equipment), rearing farm (3636 hectares), "dairy bank" (700 hectares),

promote cooperation, enhance individual capacities, and strengthen intra- and extra-regional relations by amplifying the possibilities of pursuing opportunities (projects, subsidies). These entities stand as potential instruments of development and collective progress.

This study aims to survey and analyze the structure and characteristics of dairy producer's organizations that affect Uruguay's eastern region. It is intended to investigate the causes that may be limiting the development of the sector related to these entities. The main interest of the study is family dairy production that submits to industrial plant. Therefore, the few large-scale farms of transnational capital recently installed in the region, referred to as dairy "enclave", are disregarded. These also have no articulation with dairy producer organizations.

1.1 Social capital

Arriagada⁽⁴⁾ presents three definitions of social capital (SC) as foundational, according to author:

- The set of actual or potential resources available to the members of a durable network of relationships with different levels of institutionalization⁽⁵⁾.
- The socio-structural resources that constitute a capital asset for the individuals and facilitate certain actions common to those who make up this structure⁽⁶⁾.
- Aspects of social organizations, such as networks, norms and trust, that enable action and cooperation for mutual benefit. Social capital increases the benefits of investing in physical and human capital⁽⁷⁾.

The SC can be considered in three dimensions. In the first place, the "simple" or "bonding", which is generated in the interaction between homogeneous or similar people, related, who tend to reinforce their identities constituted by bonds between family members, close friends, neighbors. The "simple" SC, as small-scale learning, is the basis for subsequent collective actions, such as the promotion of associative processes. Organizations, on the inside, are micro scenarios of SC. They allow forming values and behaviors, constructing common visions and objectives, defining mutual commitments,

processing plant and feed packing; social services, dental care, different agreements (mutual societies, educational centers, opticians, insurers), among others. Founded in 1957, it has more than 600 members, mostly dairy and cheese producers, 4 headquarters, about 80 staff and a significant trade union activity with representation in various areas (Mesa de gremiales lecheras, INALE [National Milk Institute]).



collaboration, relationships and bonds. Through organizations people learn to diagnose, plan and execute, to resolve conflicts, to generate bargaining power, to mobilize resources collectively, to find solutions to common problems⁽⁸⁻⁹⁾.

Another type of SC is the "bridging", which refers to the interaction between people who transcend our identity (political, social and professional), in order to contact people different to us. It refers to relationships between heterogeneous members, belonging to different socioeconomic, cultural or ethnic groups⁽⁸⁻⁹⁾.

The third type is the "linking", and refers to the interaction between networks, groups, organizations and people, usually of different identity and degrees of power, in different regions. The interaction between heterogeneous groups or individuals allows developing more open perspectives between regions. When social groups have no connections with groups different to themselves, they are unable to access resources that are available to other, more mature groups (such as knowledge, protections, solutions). The last two forms of SC offer the possibility of accessing resources that exist outside the first reduced network of contacts. As we move from "bonding" to "linking" SC, capacities and development possibilities expand⁽⁸⁻⁹⁾.

The promotion of SC in development strategies allows greater levels of participation and relevance of people in solving their own problems⁽⁴⁾. Regarding agricultural organizations, their efficiency can be measured through two indicators: the assessment of the number of services offered to their members, and the degree of social and institutional recognition they receive in the exercise of their functions. A richer SC for the development would be expected in those communities where associations are well valued by their members and are recognized as good and efficient intermediate actors by the public or private entities with which they relate⁽¹⁰⁾.

Public policies greatly affect the level and type of SC that individuals rely on for their long-term development goals. These policies should provide spaces for self-organization that promote the creation of SC⁽¹¹⁾. When the prevailing situation implies a low frequency in interpersonal relations, a phenomenon observed in rural areas or in areas with a great dispersion of population, programs and projects that promote the participation of those involved and the formation of local management groups can constitute a fundamental contribution to the accumulation of SC⁽¹²⁾.

The rapid changes of recent years in terms of

national economy and agriculture determine very clearly a new challenging scenario for associative governance organizations⁽¹³⁾.

2. Material and methods

This research is part of a broader study, the project called "Development of dairy in non-traditional basins through the implementation of a network of reference farms", FPTA 317 of INIA. The territorial approach includes nine departments of the Uruguayan dairy extra-basin.

This article focuses on the non-traditional dairy basin of the east of the country, that is, the departments of Lavalleja, Maldonado and Rocha. This topic was the subject of the Master's thesis in Agricultural Sciences, option Social Sciences by the first author of the article.

The field survey was carried out between August 2015 and May 2017. The research strategy is qualitative in nature, particularly a case study (CS)⁽¹⁴⁾. The instruments to collect information were direct observation and semi-structured interviews, through an established question pattern according to the profiles of the different actors to be consulted. The interviews lasted between 40 and 60 minutes, and were recorded with prior consent to achieve a better survey quality. The number of surveys performed was established using the "snowball" technique⁽¹⁵⁾. A total of 35 interviews were conducted among producers (n4), managers of dairy organizations (n6), institutional actors (n15), referents of dairy industries (n4) and private technical specialists (n6). After processing the collected information, a workshop was held in May 2017 with the participation of the different referents of the regional dairy. Then, the preliminary results were put to the consideration of the collective for discussing, evaluating and validating positions.

Secondary information sources such as the General Agricultural Census of 2000⁽³⁾ and 2011⁽²⁾ and statistical data from the National Dairy Institute (INALE by its Spanish acronym)⁽¹⁾ were consulted.

3. Results

Two departmental associations of dairy producers were identified in the study region, and one of national expression with a certain degree of local representation. The former are the Association of Dairy Producers of Maldonado (APLEMA in Spanish) and the Dairy Producers of Rocha (PROLER in Spanish); and the latter is the National Association of



Dairy Producers (ANPL in Spanish). No local dairy organizations were identified in Lavalleja.

3.1 APLEMA

The Association of Dairy Producers of Maldonado was founded in 1985, with headquarters in the city of San Carlos and 24 members, all submitters to CONAPROLE (National Cooperative of Dairy Producers). They are practically all the producers of the department. This headquarters also host the representation of the ANPL management, and the office of CONAPROLE's local technician. An agency of PROLESA (Productores Lecheros S.A.), a private collateral company of CONAPROLE, supplier of inputs for the dairy sector, operates in an office next door, being the only branch in the region. This institutional convergence represents the reference center of the regional dairy, particularly for the departments of Maldonado and Rocha, evidencing the density of the institutional network and the existence of accumulated levels of SC in the sector.

The services provided include administrative support (payment of taxes, credit management, liquidation and withholding of assets from the dairy submission), promotion and endorsement of projects, organization of social activities, management of ANPL benefits, and defense and representation of trade union interests. It does not provide technical assistance and has occasionally organized training sessions.

Since 1995 it has a rearing farm called "El Solar", with an area of 1,017 hectares, granted by the Municipal Administration of Maldonado, which contributes to correct deficiencies of scale, encourage collective work and improve the individual capacities of dairy producers in the department. It is managed by a commission of partners, it has hired personnel and technical assistance, and for specific tasks work days are carried out with the participation of the members. It is a member of the Coordinating Board of Rearing Farms (MCCR by its Spanish acronym).

The interviews conducted show that APLEMA is a recognized entity in the departmental agricultural environment; its members are relatively satisfied with the services and the operation. It is perceived as a reference local organization for the dairy sector, with moderate abilities to face difficulties and promote initiatives, and with an adequate level of representation and institutional relationship, although essentially restricted to the departmental environment.

The number of members has fallen to half in the last two decades due to many farms' abandonment of

the productive activity. This has implied a progressive process of erosion of the social mass, loss of management capacity and resources, and weakening of human and social capital. The small number of members makes the availability of aspiring union leaders less likely and hinders their replacement. While tenure for consecutive periods can be seen as beneficial in terms of skills capitalization, union experience and social network development, it usually causes burnout in the task. Therefore, the promotion, follow-up and effective materialization of initiatives are often subject to the discretion, commitment and motivation of those who lead the union. The scarce economic resources and the low participation of the members are indicated as limitations for the proper management, maintenance of services and progress of the association.

The interviews reveal that APLEMA has managed to establish cooperative relationships, especially with local entities. It has accumulated some experience in project generation and development of collective activities, which would allow attributing promotion abilities of moderate processes for the impulse of the departmental dairy.

3.2 PROLER

The Rocha Dairy Producers Association was founded in 2002 from the initiative of a group of producers in order to face a complex situation of Rocha's departmental dairy (climate, economic, lack of inputs and services). It has 23 affiliates who submit to CONAPROLE and remains relatively stable since its origins. Since PROLER does not have its own headquarters, it operates once a week in the facilities of the Rocha Agricultural Cooperative with one official. It essentially provides administrative support to producers, and collaborates in credit management, tax settlement and facilitates access to some benefits of the ANPL, such as accounting, labor and legal advice, among others. It does not provide production related services, such as machinery, forage and wet grain operations, technical assistance or rearing farm.

In recent years it has undergone a weakening process, being practically inoperative, with little activity from the directors' board and members. The interviews conducted show that some producers attend specific meetings or days, but do not choose to occupy positions or commitments that imply responsibilities.

It emerges from the interviews that PROLER is perceived as a fragile organization, with reduced activity, scarce resources and management capacity,



and low levels of relations and experiences of cooperation with other entities. In this regard, interviews indicate that *"people are very involved in their premises, with their problems, and it is very difficult to get them out to participate"*, *"we have not been meeting for a long time"* and *"the union is a little inactive lately"*.

Attention is drawn to the very few references to joint activities carried out between Rocha's and Maldonado's associations, especially in view of their relative proximity and common interests. It emerges from the interviews that there are no periodic meetings of the affiliated groups; there is lack of motivation and skepticism regarding the ability to promote the restructuring and strengthening of the union.

Rocha's dairy farmers are fragmented in the department, which is pointed out as an impediment to regular participation. It is difficult for farms to provide specific inputs for the sector, while they face higher freight costs due to distance, and inconveniences to access agricultural machinery services, spare parts and maintenance of milking equipment. They also struggle to access specialized dairy technical assistance and to recruit qualified personnel.

Rocha dairy production shows limitations that could be related, at least partially, to weaknesses and deficiencies of the representative producers' organization. Therefore, the basin lacks essential support and SC to contribute to sustainability and to the promotion of the development of the departmental dairy.

3.3 ANPL

The National Association of Dairy Producers (ANPL by its Spanish acronym) was founded in 1933 in Villa San Ramón, and currently has its headquarters in Montevideo. It has 16 zonal offices and 15 collaborating offices in the rest of the country, where the union services are represented, although with different emphasis. It has been linked to CONAPROLE since its beginnings, being essentially the union entity of the producers submitting to that cooperative. According to information provided by the ANPL, it has a social register of 1,223 active members distributed in all departments, 58 corresponding to the study region of this research (25 in Lavalleja, 22 in Maldonado, and 11 in Rocha).

It is the dairy union with the greatest relevance and incidence of the sector at the national level, among other things, due to the extensive representativeness and decentralization in the territory. It is separated in 8 commissions specialized in different topics: dairy unions, commercial services and operations, rearing fields, youth, health services, labor

and social relations, editorial board and communications, and heritage, animal health and environment.

The services can be outlined and summarized in three areas:

a) Production support (rearing field, wet grain operation, machinery services, etc.), management (settlement and payment of taxes) and administration (accounting, labor, legal advice);

b) social and health benefits (student residence, management of study grants, "first work experience" program, dental and ophthalmological service, social events, "Tambo joven" program—which promotes generational replacement on farms);

c) union and representation activity in various fields (political, economic, commercial and health). It has delegates in the INALE, the National Institute of Colonization (alternate position between agricultural associations), the Administrative Commission for the insurance of prevalent diseases in cattle, and the Wages Council of the rural sector. It is the reference entity for the national dairy sector, maintaining periodic exchanges with hierarchies of the Ministry of Livestock, Agriculture and Fisheries, and attending meetings with the Finance Commission of the Senate and various actors of the Government. It takes action in claims related to dairy prices; it negotiates financial assistance funds, among other actions of interest for the sector.

It also promotes systematic interventions in the media, contributing to opinion-forming. A bimonthly magazine is published with national scope aimed at members and agents related to Uruguayan dairy. It organizes periodic events (social, technical, walks, zonal meetings) in order to encourage the integration of the members, promoting the sense of belonging, and generating areas of participation and proximity with the association and its leaders.

The ANPL is a first-degree organization with vast experience in the promotion and execution of projects and different initiatives. It has an extensive and profuse network of relationships, having established multiple agreements with other entities. Several of its services are represented through the departmental dairy associations, as is the case of Maldonado and Rocha, as indicated.

The interviews show a high degree of identification of the members with the ANPL, and they recognize it as an important and prestigious entity at the national level. In general, they appear satisfied with the management, the leadership in the defense of collective interests and the services provided. The



interviews include expressions indicating that "*ministries, public agencies, politicians, the Senate Agriculture Committee, the Finance Committee, among others, consider the dairy farmers' opinion through the ANPL, as it is the largest organization and the national reference.*"

Most of the members of APLEMA and PROLER are also affiliated to the ANPL, which they consider as a reference entity, but which, however, does not address local problems, interests and demands. Several of the services, especially those related to production, are not accessible to dairy farms in the region for various reasons.

Table 2 presents some characteristics of the three associations with incidence in the region, based on the data collected in the interviews.

3.4 Lavalleja Department

In the department of Lavalleja there are no formal associations of dairy producers. The farms are distributed mainly in the south-west area, in proximity to Canelones, so some are linked to the Society of Dairy Producers of San Ramón (SPLSR in Spanish). The closeness to associations related to other areas, essentially with a livestock profile, encourages them to find in these some more regulatory support and interaction.

There are no articulations between the dairy producers of Lavalleja and the related associations of the region, APLEMA and PROLER, explained mainly by the distance and geographical disposition of that department.

The productive units of Lavalleja are deprived of a local reference union that provides support and allows channeling the problems and interests of the sector, collectively. Therefore, departmental dairy would have relative disadvantages compared to other regions.

4. Discussion

In general, the main decision and influence centers in dairy matters operate in the capital of the country and in the surroundings of the traditional dairy basin. Producers' organizations in the region show difficulties in channeling their own concerns and influencing these spaces. The expression of the linking SC shows little development, although with different levels from an intraregional perspective, where APLEMA evidences better skills.

Table 2. Characterization of dairy associations present in the region

	ANPL	APLEMA	PROLER
Scope	National	Maldonado	Rocha
Foundation (year)	1933	1985	2002
Members	1.210	24	23
Board meeting	Weekly	Approx. 2 months	Indeterminate
Own headquarters	Yes	No	No
Decentralization	1 central office, 16 regional offices and 15 employees	1 office in San Carlos shared with the ANPL	1 office in Rocha
Officials	More than 60	1	1
Headquarters opening hours	M to F (8 to 17 h)	M to F (8 to 12 h)	M (9 to 12 h)
Strengthening			
Participation	High	Low	Very low
Management capacity	High	Low	Very low
Role replacement	High	Low	Very low
Proposal capacity	High	Low	Very low
Identification	High	Low	Very low
Service satisf.	Yes	Yes	No
Planning, strategies	High	Low	Very low
New services	Yes	No	No
Functioning structure	Broad and diversified	Reduced and concentrated	Minimum
Services			
Production support	Many	Some	None
Management support	Many	Some	Some
Social serv.	Many	Some	Minimum
Union	Many	Some	Minimum
Institutional relations			
Amplitude	National	Local	Local
Frequency	Very frequent	Low	Minimum
Relationship availability	Very good	Medium to low	Scarce
Representativeness	High	Low	Low
State	Strong	Weak	Very weak
Cooperation exp.	Many	Some	Scarce
Associative proj.	Many	Some	None

Source: own elaboration based on interviews conducted.

The low absolute number of members of departmental dairy entities constitutes a significant limitation for adequate promotion and institutional management. This implies that a small group of people drives and carries, sometimes for several periods, the dynamics of the entities. In this context, the possibilities for leader replacement are limited, which, in addition to the low participation of several members, constitutes a difficult scenario. The responsibilities in the management of representative entities



demand time, certain skills and often personal resources, which sometimes cause resistance to assume these positions. Some members have demanding positions towards the unions, devoid of a sense of belonging and ignoring the collective conception of the entities, which sometimes causes internal disagreements, does not contribute to the integration of the social mass and undermines the construction of the simple or bonding SC. Addressing these aspects and encouraging the strengthening of relations between members, by stimulating the development of knowledge and associative skills, would help to raise essential constraints.

The limited economic resources coming almost exclusively from contributions for social quotas mean a strong restriction for the unions. The weak structure and the scarce backgrounds in the promotion and execution of projects or agreements with other entities question the institutional capacity to manage initiatives and resources derived from eventual projects or subsidies. Entities that have managed to establish and properly manage collective actions, facing challenges and commitments of some relevance, as in the case of APLEMA with the rearing field, usually capitalize on experience, trust and group strengths. That is, to accumulate increasing levels of SC that would allow proposing new and broader challenges.

The study region is a territory with a diverse presence of groups of agricultural producers, such as cooperatives, development associations and rural associations. Dairy farms, although they participate in dairy-related local organization, are often related to other entities where they find benefits and complementary benefits. They represent strategies to meet demands, what also indicates and suggests deficiencies of dairy associations. Besides having experienced cooperation and synergy with other entities, mainly in the local environment, in general they are scarce. The dimension of the bridging SC shows limited development. In this regard, it seems important to explore possible cooperation agreements with other rural entities, which would allow enhancing individual capacities, overcoming limitations of scale and reducing costs.

Public policies have been implemented in recent years to strengthen producers' organizations, and promote the articulation, participation and development of social networks in rural areas. However, the dairy entities of Maldonado and Rocha did not approach these initiatives. They have occasionally participated in the Rural Development Roundtables (MDR in Spanish), and did not promote Institutional Strengthening Projects (PFI in Spanish) within the

framework of the tender made by the General Directorate of Rural Development (DGDR-MGAP).

5. Final observations

From a broad point of view, the social capital of the Maldonado and Rocha dairy producers' organizations is weakened. They have a small social mass, and low participation and involvement of their members in the dynamics, promotion and management.

In recent years there has been a progressive process of distancing dairy producers from the activity, which deepened the difficulties and eroded the SC of the organizations.

APLEMA has some experience in the implementation of projects and synergy with other entities; it has developed relationship networks mainly in the local environment and has a valuable tool for departmental dairy, such as the breeding field. Therefore, it exhibits certain development levels of the bridging SC, referring mainly to the departmental environment. In general, it shows moderate capacities to contribute to the promotion and sustainability of the Maldonado dairy.

PROLER evidences essential limitations that notoriously restrict the performance of regular activities and the implementation of consistent initiatives. It does not seem to have the basic stimuli for the restructuring and strengthening of the union. In this context, it would be advisable to analyze possible articulation lines with APLEMA to promote synergies between the two institutions. Their relative geographical proximity and evidence of common weaknesses and shared interests reinforce this perspective.

Both entities show relatively low levels of interaction with groups, networks and organizations in the extra-departmental or national environment, which would be limiting the ability to access resources and opportunities. The linking SC would have a meager expression, being relatively more limited in the case of the union in Rocha.

The ANPL is the main representative organization of Uruguayan dairy. It has a wide structure and various services; however, it is perceived as having low incidence in the region. It is represented in Maldonado and Rocha through local groups, and the services enjoyed by producers are basically restricted to administrative procedures.

In the analyzed region, the dairy basin of the department of Lavalleja shows the greatest difficulties to access services and support from dairy unions. Due



to the absence of a local entity specialized in the field, farms find some assistance in rural organizations with other productive orientations, especially livestock.

The collected evidence allows indicating that the weaknesses of dairy producers' organizations, particularly in their social capital, contribute to partially explain the limitations in the development of the sector in the region. This consideration is especially relevant in the department of Rocha, where the incidence and the contribution of the local association as a support for the farms are perceived as limited. Lavalleja's dairy producers lack an organized sectoral entity at the departmental level, which is observed as a source of weakness for the development of this production.

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Authors' contribution

Martín Grau contributed to the data collection, the analysis of information, the interpretation of results, and the writing of most of the article. Jorge Álvarez and Pedro de Hegedüs contributed to the analysis of information, the interpretation of results and the writing of the article.

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