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Article

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economic sociology_the european electronic newsletter

Provided in Cooperation with:

Max Planck Institute for the Study of Societies (MPIfG), Cologne

Suggested Citation: Gonçalves Junior, Oswaldo; Braga Martes, Ana Cristina (2015) : Democracy, markets and rural development: The case of small goat-milk farmers in the Brazilian northeast, economic sociology_the european electronic newsletter, ISSN 1871-3351, Max Planck Institute for the Study of Societies (MPIfG), Cologne, Vol. 16, Iss. 3, pp. 25-33

This Version is available at:

<https://hdl.handle.net/10419/156057>

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Democracy, Markets and Rural Development: the Case of Small Goat-Milk Farmers in the Brazilian Northeast

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Abstract

This article examines the social construction of a goat-milk market in one of the poorest regions of Brazil, the Northeast Semi-arid. This instance of the establishment of a goat-milk market is an innovative project with potential to combat poverty and underlines the relationship between the economy and democracy. Its aim is to encourage the participation of various social actors and institutions. The article centers on how this process is stimulated by means of a *goat enthusiast network* composed of key agents linked to a variety of organizations. It also highlights the role of the federal government in a program to provide financial support for food purchases (Programa de Aquisição de Alimentos – PAA), implemented in partnership with state governments in the Semi-arid region, and the development of a targeted Milk Program aimed at ensuring markets for family farmers. At the local level, municipal governments and breeding associations have done all they can to assist an effort that has offered critical support for continued implementation of these programs, combining tradition and regional vocation with innovation and the productive social inclusion of poor people. From the perspective of the interconnection between economic life and social life, the article analyzes the process of social inclusion through production and consumption.

Keywords: social construction of markets; development; public policies; economy and democracy.

1 Introduction

This article examines the initial stage in the social construction of a goat-milk market in the Brazilian Semi-arid. This initial stage corresponds to the period in which efforts were made to overcome the array of cultural barriers related to goat-raising and to elevate the status of goats in the region. Moreover, the initial stage was associated with the implementation of a specific public policy – the Food Purchase Program (Programa de Aquisição de Alimentos – PAA) – to increase the supply and demand and consumption of goat products.

The study centers on the sociology of translation (Callon, 1986). The analysis here does not address all of the four “moments” in the sociology of translation (*Problematization, Interessement, Enrolment, Mobilization*) as laid out in Callon’s seminal article. Rather, we focus on the theory’s central argument: the content circulating in the network of relationships between human and non-human agents. For the purposes of this study, we consider the production and dissemination of a body of knowledge circulating among individuals and organizations that through scientific and economic arguments directly confronts traditional practices while incorporating particular aspects of that tradition so as to ensure target market expansion. Dissemination of this knowledge broadens the technical and scientific repertoire available for innovation by incorporating popular local references and practices.

With a view to examining the content that circulates within and pervades the goat-raising support network, we identified the respective actors and their repertoires and the types of interaction and social networks involved. We then analyzed the changes stemming from implementation of the PAA program. Through the program, the state has managed to assume an increasingly pivotal role in leveraging the goat-milk market by guaranteeing and expanding demand and providing guidance for improvements in herd management processes and the supply chain.

The sociology of translation is thus employed as a reference for better understanding the full body of interconnected knowledge, with a view to resignifying goats and redefining traditional goat-raising practices that date back to the sixteenth century in Brazil, when the original Portuguese settlers first introduced these animals into the region.

In this light, the following question offers a good starting point for the study: how can public policies stimulate the construction of markets to spur development and improved living conditions for poorer population segments? The case study examined in these pages demonstrates that, in addition to the development and dissemination of new technical and scientific knowledge, the PPA has served as a critical instrument for building more direct and horizontal networks between family farmers and rural cooperatives. These networks have transformed a market historically plagued by low economic dynamism (characterized by traditional practices and political and economic concentration) and broad exclusion of the population from the policy-making process and the distribution of productive wealth, factors that have exacerbated long-standing disparities.

By incorporating the construction of horizontal relationships between the various actors operating in the goat-milk market, the objective is to contribute to the discussion on the relationship between the economy and democracy, a topic of increasing prominence in political science (Wucherpfennig/Deutsch, 2009) and a subject of growing interest in other fields (Arif/Kayani/Kayani, 2012). Expanded popular participation and horizontal relationships are addressed as constituent elements of a more democratic form of economic development and greater social equilibrium.

In this article, we reject the existence of a necessary tradeoff between economic efficiency and democracy (Bhagwati, 2002), but we strive to incorporate social and political-governmental aspects capable of promoting the construction of markets. In the words of Dowbor (2005: 1), "Economics help to shape our vision of the world, but it alone cannot be our world view. The economic dimension represents only one aspect of what we are."

The processes analyzed in these pages run directly counter to the notion that the Northeast Region of Brazil is economically dependent on the country's wealthier areas. Public sector experts and technical specialists engaged in developing productive innovations in the Brazilian Semiarid have helped shape a new institutional environment that

challenges the region's political history, long dominated by entrenched oligarchies. As we will see, the tradition of goat-raising is intrinsically tied to an inclusive form of economic development, stimulating the consolidation of associations and cooperatives.

2 Methodological Note

The study's field section was conducted in stages, encompassing a total of 60 days in the field between 2008 and 2009. Data collection on goat-raising in the Brazilian Semi-arid involved 23 semi-structured interviews of experts (9), public administrators (5), goat-raising association leaders (3), and small goat producers and farmers (6). Interview subjects were selected using the snowball method based on the identification of key actors from whom referrals to additional interview subjects were drawn. In addition, 28 unstructured interviews were held with small goat-raisers and family farmers using the same selection process. By the same token, a number of small property owners and their families were contacted and visits conducted to various small rural settlements and agricultural fairs in the target areas.

Observation was also important, with the aim of collecting information to describe the development of goat farming in the region, focusing on the pertinent actors, as well as any new organizational arrangements and configurations. Contact was also established with public sector administrators, coordinators, managers and technicians (municipal, state, and federal), parastatal bodies and state companies engaged in agricultural extension and research, federal universities, and members of small goat farming associations in addition to small and medium-sized farm associations, resident associations in the various rural communities and settlements, and traders and workers in the farming sector. Rounding off the research work were reviews and analyses of documents and theoretical studies.

In addition to interviews and observations, documents prepared by organizations devoted to supporting the development of goat-raising were consulted, in particular those of the Brazilian Agricultural Research Corporation (Empresa Brasileira de Pesquisa Agropecuária – EMBRAPA) and the National Food Supply Company (Companhia Nacional de Abastecimento – CONAB).

3 Cultural barriers to the development of goat farming

The Brazilian Semiarid covers approximately 970,000 km², an area corresponding to the combined size of France and Germany. It encompasses 1,133 municipalities in nine Brazilian states and a population of nearly 21 million inhabitants, almost half of whom reside in rural areas (BRASIL, 2005). In short, it is the most populous semiarid region in the world, in which the principal productive activity is farming (Gomes, 2001). The land tenure system is highly concentrated. At the same time, the region is marked by a significant number of small farming establishments or units (IBGE, 2006). This apparent contradiction is a product of the acute concentration of land ownership.

The traditional economy in the Semiarid is organized around open-range livestock production – historically considered the region's primary "vocation" – and farming. However, these activities have not benefited from any significant technical upgrades over time, resulting in low productivity and, in some cases, outright stagnation and persistent food shortages.

Goat-raising has been pursued in Brazil's Northeast since the arrival of the European colonizers. Following their introduction, goats spread throughout areas not conducive to other activities by virtue of their hardiness and capacity for adaptation. The region is home to more than 90 percent of Brazil's goat population, with approximately 9 million animals. Although a significant feature at the regional level, Brazil's goat herd represents less than 2 percent of the world's total goat population. Traditional extensive open-range management – animals raised on open-range pasture lands with minimal human interference – and a deteriorating genetic pool (triggered by successive random crossing of unknown breeds from one generation to the next) have resulted in low productivity.

However, while goats are an important component of the popular regional culture, according to Nobre (2007) large landowners view goat-raising as an activity "stubbornly pursued by poor people," a "marginal activity with no future," despite the fact that goats provide meat for daily consumption by poorer population segments and that goat milk represents the main source of protein for children and farmers in rural areas (Nobre, 2007: 1). Nonetheless, goats are viewed as *inferior* to cattle, the production of which has traditionally been closely tied to elevated social status.

As such, goat-raising is commonly referred to as *miunça*, a regional term meaning "low-value production."

However, a comparative analysis reveals that goats are in fact more adaptable to the Semiarid than cattle: they are more resistant to drought and have a greater capacity to draw food from the region's typical *caatinga* vegetation. Although cows yield as much as 10 liters of milk per day, considerably more than the 1 to 2 liters goats produce, goats generate offspring up to twice per year, whereas cows yield only 1 calf every two years. In addition, while goats require an average of 4 liters of water each day, calves need 41 liters, a significant factor in the Semiarid. Another pertinent point is that cows cost ten times more than goats. In other words, for the price of one cow, a lone asset which can be lost suddenly and unexpectedly by virtue of recurrent and severe drought, a family farmer can raise dozens of goats, and at a lower daily maintenance cost.

It is important to underscore that the interpretations set out in the paragraph above, which belie the supposed low economic potential of goat-raising, were developed and disseminated through studies and reports prepared by government agencies, in particular EMBRAPA and CONAB. Although they are both federal institutions, the two entities have reached into regional and local communities, spurring the formation of a network and providing high-level technical services, guidance, and direct assistance to family farms, dairy production establishments, and cooperatives.

This body of knowledge created by these federal institutions has contributed to countering the belief that goats serve only for domestic consumption or, at best, to supply incipient local markets. Today, a new view pervades the network that offers a sharp critique of the outcomes generated by traditional goat-raising processes: extensive open-range production, genetic deterioration, and low productivity, sporadic and domestic consumption. According to this perspective, it is the lack of organization of the goat-raising sector that lies at the root of repressed demand, a result of insufficient supply, particularly products of a quality consistent with the standards identified in more demanding markets. In fact, because of the disorganized structure of the related activities, it is possible to meet existing demand only through meat imports to the Northeastern market. Recent estimates indicate "a goat meat shortage of 13,000 tonnes / year" (Nobre, 2007: 26).

In an effort to raise the status of goat-raising, targeted events have been organized to mobilize local communities; specifically, “goat festivals” sponsored with the support of mayors, local legislators, and experts. These annual events draw thousands of people for the purpose of reshaping the symbolic context created around these animals. In the largest of these festivals, the “Festa do bode rei” (“Goat King Festival”) in Cabaceiras, Paraíba, enormous statues of goats line the streets. A number of attractions, including goat competitions and various culinary booths offering recipes and food options based on goat products, contribute to the experience of the festival.

Events such as these help to strengthen and expand innovative ideas and practices for this sector. However, it is important to underscore the boost the support networks received with the implementation of a targeted federal government food purchase program designed to bolster local economies and family farmers and stimulate the establishment of cooperative associations: the Food Purchase Program (PPA).

4 Fostering the market through demand policies

The federal government’s Food Purchase Program (PAA) was established in 2003 to fight hunger in Brazil, as a partnership of the state and municipal governments. In 2010, the NGO *Action Aid International* ranked Brazil at the top of the international effort against hunger because of the series of public policy initiatives enacted to spur economic growth, combat poverty, and foster family farming.

In terms of its operations, the PAA uses government-set prices to promote production by family farmers, with a view to assisting at-risk population segments. Over its first seven years (2003–2010), the PAA spent more than R\$ 3.5 billion on the purchase of approximately 3.1 million tonnes of food, directly benefiting an average of 160,000 family farmers each year in over 2,300 Brazilian municipalities. According to figures of the Brazilian Food Supply Company, CONAB, every year food purchases are used to supply approximately 25,000 social assistance entities and public schools engaged in delivering assistance to up to 15 million people (CONAB, 2010).

Statistics drawn from the Agricultural Census (IBGE, 2006) reveal that the Northeast has the largest number of family farmers. The region is also the country’s poorest and continuously subject to drought, particularly in the Semiarid,

which spans 56.46 percent of the Northeast’s total area. In Paraíba, the Semiarid constitutes 80 percent of the state’s landmass. Consolidated figures for the period 2003–2009 indicate that the Northeast is the largest recipient of PAA resources among the country’s five major regions (51 percent of the total), more than double the amount allocated to the South, the second largest recipient of program funds (22 percent of all resources in the survey period) (CONAB, 2010).

The Incentive to Milk Production and Consumption (Incentivo à Produção e Consumo de Leite) initiative, more commonly known as “PAA Milk,” is implemented exclusively in the Brazilian Semiarid. Purchased milk (whether from goats or cows) is pasteurized on dairy farms registered with the government and, subsequently, transported to distribution points. Milk is of critical importance to family farmers as it ensures a continuous revenue stream and is not dependent on fertile soil. When the program was established, the idea was to serve 20,000 family farmers through (i) market expansion initiatives; (ii) increased prices for milk produced by family farmers; (iii) improved herd health (vaccinations) and management; and (iv) technical assistance. The PAA is based on the participation of dairy farms and includes among its objectives the expansion of milk consumption (Martins, 2014: 77–78).

The assessments of PAA Milk are very positive. According to Martins (2014) the program succeeded in spurring local economies and improving the nutritional conditions of individuals in extreme poverty. The quality of milk products, hygienic standards, and animal management and health improved through the adoption of new milking techniques implemented to meet the PAA’s stringent conditions (mandatory foot-and-mouth disease vaccines). By virtue of the initiative, the use of worm and tick control agents increased from 83 percent to 90 percent. This, in turn, led to higher productivity and a 40 percent rise in the number of milk cooling tanks. With regard to improved herd genetics, 26 percent of all farmers purchased genetically superior animals. Concomitantly, there was a reduction in the fluctuation of seasonal prices and the volume of sold milk and a notable improvement in the consumption patterns of family farmers, including, among other factors, a rise in the purchase of personal computers and other durable consumer goods by goat-milk producers (Martins, 2014: 84).

In the period 2004–2012, Minas Gerais received the largest volume of resource allocations (approximately R\$ 390

million), followed by Paraíba (R\$ 284 million), the Northeastern state registering the largest number of PAA Milk participants (50,564) (Martins, 2014). Paraíba's performance is of particular interest. In contrast to Minas Gerais, where dairy cows account for the bulk of milk production, over the past several years Paraíba has built up the largest herd of milk goats in Brazil. Recent figures indicate that the state's economic growth has outpaced the regional average. According to statistics of the Brazilian Institute for Applied Economic Research (Instituto de Pesquisas Econômicas Aplicadas – IPEA), in the period 2000–2005 the semiarid region of Cariri Oriental registered the second highest rate of Gross Domestic Product (GDP) growth in the state (5.17 percent), trailing only the state capital city of João Pessoa (7.04 percent).

Goat-milk production is a fundamental component of the local economy. Today, Cariri is the largest producer in the state and one of the leading producers in Brazil with an output of about 18,000 liters. Recent estimates reveal that the region has 420,000 goats and sheep, of which 25 percent are milk goats. Milk production activities currently involve 900 farmers distributed among 32 associations currently operating 10 small processing plants.

5 The networks and their content

Through the PPA, the state plays a central role in the formation of the goat-milk market, allocating financial resources and stimulating the participation of new farmers, thereby spurring production and incentivizing consumption.

In addition to the broader network composed of those agents with an interest in goat-raising – local mayors, PPA operators, beneficiaries, and consumers – there is another network that, though relatively restricted in its number of participants, is more active and directly responsible for innovation in the goat-raising segment: the “*goat enthusiast network*” (Gonçalves, 2010a; 2010b). This network is made up of (i) experts engaged in research and rural extension, (ii) small producers, and (iii) local leaders linked to local cooperatives and associations. These three groups of key actors comprise a heterogeneous collective that is actively engaged in designing, developing, and disseminating innovation. They foster continuous exchanges of experiences in symmetrical fashion, despite the very different knowledge sets and expertise they bring to the issue. One of the enrolment “techniques” applied to draw people to “get on board” innovation involves a straightforward strategy rooted in a popular concept: “dissemination of

the envy technique” (interview with EMBRAPA technical experts). Persuading producers to adopt new herd management processes is easier when the word gets around that a farmer known to the local community has increased his or her income and has achieved a higher standard of living after incorporating new innovative techniques. News passed on among people who know each other or involving individuals of whom they have heard, serves as an effective instrument to break traditions and increase the willingness to assume costs, including symbolic costs, related to the adoption of new techniques. Farmers more attached to existing traditions are thus spurred to adhere to technical principles disseminated through the *network*. However, small goat farmers will accept new practices only after being confronted with the “power of example” offered by one of their peers. This is one of the ways in which public sector agents, key actors in the network of enthusiasts, manage to draw farmers into capacity building programs organized by local governments and associations of small goat farmers, often in partnership with EMBRAPA and SEBRAE.

Until recently, many goat farmers worked as seasonal and temporary laborers under extremely difficult conditions due to an unstable environment marked by recurring drought. By entering into goat-milk production on the network's new proposed bases – specifically, affiliation with small producer associations – many have seen their lives transformed, earning a steady and stable monthly income above the local average, approximately 300 US dollars (Guanziroli/Sabbato/Vidal, 2011). This income constitutes an important factor in drawing family farmers into the network of enthusiasts. And indeed, those who succeed in increasing their earnings are held up as examples to be followed by farmers who have not yet joined the movement or are in the process of being persuaded.

The *network of enthusiasts* is driven by a variety of professionals in the field of agrarian and veterinary sciences, more experienced goat-raisers and association leaders, researchers and university professors, public administrators, and even political leaders who strive to elevate the status of goat-raising by disseminating knowledge among family farmers, with a view to helping them attain better living conditions by adopting the relevant practices. These new herd management techniques center primarily on improved genetics, specifically controls on cross-breeding and selection of goats with greater milk production potential; introduction of milking practices that emphasize hygiene and the application of other techniques capable of ensur-

ing higher quality milk; substitution of extensive open-range goat raising with a semi-extensive model to guarantee greater controls of animal routines and the administration of animal feed, vaccines, and other medications. In sum, the initiative consists of goat-raising based on standards entirely different from the traditional practices of livestock production in the region over the centuries.

Despite the efforts of communities to implement far-reaching changes, it would be incorrect to assert that they have completely abandoned their traditions, notwithstanding the efforts made to redefine them, due to the fact that goat-raising, as we have seen, is a centuries-old practice in the region. It is important to underscore that the network is founded on the belief that goat-raising is the most effective strategy for the development of rural areas in the Semiarid. It is a belief that requires engagement, activism, and commitment, so much so, in fact, that some technicians have put up their own money or worked longer hours when they have felt that an individual farmer is committed to enhancing his or her production and requires help to achieve this end.

The profound belief in this approach is based on the comparative advantages of goat-raising in relation to cattle production, as clearly established by well-founded scientific arguments and reflected in the region's history. Cattle raising has always been given preference without successfully demonstrating a capacity to spur sustainable development, due to recurring catastrophic droughts, or build a society free of poverty and inequality.

In this context, goat-raising is being redefined and offered as a solution or pathway to development, no longer simply as a type of small farming to mitigate hunger, the effects of drought, and extreme poverty. By redefining the problem – that is, by affirming the feasibility of goat-farming through an expanding consumer market – the public policies implemented for the small farming sector gain greater legitimacy. The power of example embodied by successful farmers has an impact on the information that circulates within the network. The growing prosperity of small producers who have adopted the new techniques serves as an endorsement, persuading other small farmers to adopt those same techniques. In this way, translation and circulation spur the entry of new actors.

The network's penetration and coverage are particularly notable, given the geographic dispersion of the Brazilian Northeast. Ideas and knowledge circulate through the

network that contribute toward reformulating goat-farming repertoires, which are then shared by actors in different social strata joined in the common cause of renewing the sector.

As an example, Cabaceiras, a city located in Paraíba, records the lowest rainfall in Brazil. However, every year the city boasts copious goat herds which are raised through application of an extensive open-range model, for the purpose of supplying slaughterhouses distributed in the region. A glance at the city's history reveals a number of failed attempts to implement alternative production models based on the harvesting of various crops, due to the recurrence of drought and market factors, specifically price fluctuations by which from one year to the next family farmers obtained profits from a new activity only to lose everything they had invested and built in short order.

An alternative emerged in the 1990s with the decision to invest in goat-milk production and sale through establishment of the Cabaceiras Association of Goat Farmers (Associação dos Criadores de Caprinos e Ovinos de Cabaceiras – ASCOMCAB) and construction of a milk processing plant, a key component for large-scale production. At the same time, efforts were undertaken with producers in the municipalities to build capacity in systematic milk production processes – an unprecedented initiative up to that point – through application of new goat-raising management techniques. Among the commonly recounted narratives of *enthusiasts* in the Cabaceiras region during the training and preparation of this new contingent of goat-milk producers were the continuing clashes between tradition and innovation, stubborn resistance, and the power of example.

Driven by family farmers, the effectiveness of the ASCOMCAB initiative reveals itself in expanded social relations through productive social inclusion that serves to break down the isolation and redundancy of limited ties among networks to the household and neighborhood spheres in environments traditionally marked by low dynamism, instability, and concentration of political and economic power in the hands of a few large landowners.

Another notable outcome of the effort was the capacity of the ASCOMCAB plant to produce 800 liters of goat milk per day through 2009. Continuous production increases in relation to the quota purchased under the PAA drove the Association – and neighboring cities – to form cooperatives. These are aimed at circumventing a legal restriction that bars associations from selling their products directly

on the market. The milk cooperative thus makes it possible to sell directly to consumers and supply milk and milk products to small regional markets. There are two reasons for this: the higher value added this type of commerce offers and inclusion in the private market, thereby overcoming one of the key bottlenecks in the supply chain under the state program, in which the only buyer is the government, whose purchase quotas, moreover, are and have always lagged since the program's launch due to overestimates with regard to the enrolment of family farmers and, by extension, goat-milk production.

6 Conclusion

Construction of a goat-product market in the Brazilian Semiarid is a work in progress. In this article, we endeavored to understand the initial stages of this process. We argued that the starting point was a network of technicians engaged in various public sector bodies (in particular, EMBRAPA and state agencies) who set out to revitalize goat-raising and management techniques, successfully boosting productivity and promoting goat-farming as an activity and business. The dissemination of this innovative body of knowledge was accomplished through a networking effort in which contact between technicians and small landowners intensified and grew as the knowledge circulated. However, the experience was neither a linear nor a one-way process. To be sure, small farmers in the region also contributed significant knowledge and experience. In practical terms, family farmers provided government technicians with critical guidance on how to expand the network. Factors related to the economic culture of goat-raising, including traditional goat festivals and fairs, music, and so on, were integrated as part and parcel of the innovative strategies developed by government technicians. Additionally, the effort did not trigger widespread dismantling of existing traditions and practices. Rather, it represented a specific type of innovation capable of redefining the role and status of goat-raising and small farming in the region. As a consequence, traditional goat-raising in the region has been rejuvenated as the animals have come to be viewed as an economically viable and promising alternative. The tradition of goat-raising, once associated inextricably with poverty, now offers an opportunity for social mobility.

Put another way, the process of building a goat-farming market has not led to the destruction of tradition, but has instead served to incorporate aspects of that tradition into more innovative techniques. By the same token, the con-

struction of the market has not been accomplished through the formation of new economic agents (producers and consumers). Goat farming remains in the hands of the small farming communities that have been engaged in the activity for the better part of five centuries, while the consumer base for goat products is constituted by local inhabitants.

Moreover, consolidation of the goat-raising market has been made possible through an innovative public policy (PAA) implemented to support and guarantee the purchase of small farm products. In developing these local supply chains, the PAA incentivizes the formation of associations, thereby strengthening the otherwise low productive capacity of individual small farmers. Associations enable the purchase of refrigeration tanks for the storage of milk, and the transport and movement of high volumes and continuous flows of products to market. The process has led to the establishment of small farm cooperatives, a seminal achievement for an impoverished region historically dominated by traditional patronage and clientelistic practices and marked by widespread disenfranchisement and the strong dependence of poorer population segments on local political bosses.

The circulation of new knowledge on goat farming and the clash with tradition in the Semiarid have led to adjustments and consequently improvements that can be formulated as the challenge being faced (*Problematization*). The strategies adopted to recruit new actors (*Enrolment*) and reinforce the association between agents and support for the network of enthusiasts (*Interessement*) ensure fidelity to the collective interest by spokespersons who assume a greater role in the process (*Mobilization*), including the experts from research and rural extension institutes.

The study demonstrates that the *network of enthusiasts* continues to extend its reach thanks to the circulation of knowledge, enabling the incorporation of new actors through continuous adaptation while redefining and reaffirming proposed values. It is interesting to observe the gradual alignment in the prevailing discourse, visions, and values attached to goat-raising within a geographically dispersed movement encompassing the vast Semiarid Region. This cohesion is fostered by knowledge circulating in the network through a process of continuous dynamic adaptation. In other words, while experts strive to disseminate new techniques and raise the status of goat-raising, small farmers open the way to new participants and organize cooperatives and associations that help to revive the sector.

Social networks serve as a mechanism for overcoming barriers caused by the dispersion of poorer population segments who are often difficult to reach and identify, thus effectively addressing a key obstacle in the public policymaking process: access for dispersed beneficiaries.

An equally important point is the “sense of mission” and “public spirit” of *network enthusiasts* who emphasize the productive social inclusion of family farmers. In this light, the initiative is not a mechanical process driven by a “well-formulated” public policy. Rather, it involves public policy action supported by the circulation of a variety of components (knowledge, techniques, values) through a network of goat-raising enthusiasts, in which the link between democracy and economy helps shape a framework that fosters horizontal relationships founded on the exchange of knowledge.

Active participation of the network in the sector’s policymaking process – specifically, the determination of strategies and exchange of expertise – reveals, moreover, its influence on public policy cycles at different stages. This includes development of the PAA’s agenda, formulation, decision-making, and implementation. Indeed, this phenomenon stretches back to the original theoretical work by key *network* actors, experts, and specialists. These were affiliated to public institutions in the field of research and rural extension who, a full decade prior to the launch of the PAA, proposed the need for a policy with strikingly similar characteristics, a pillar of which was the promotion of goat-milk production in family farming communities in the Semiárid.

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