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Artciel

Niche Sustainable Agricultural Production in Colombia: The Case of Territorial Development Agendas and Development Planning in the Province of García Rovira

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Abstract: This article addresses the emergence of a niche for sustainable agricultural production in the province of García Rovira, Colombia. It examines the intervention of the Colombian planning regime, which implements agendas for sustainable territorial development. However, these agendas are not adequately aligned with provincial realities, resulting in a productive decline. From a multi-level perspective, a niche of production linked to the landscape is identified, highlighting sustainable practices and innovation. The study seeks to understand how planning influences the emergence of such niches and what factors boost their transition to sustainability. Through a mixed methodology, growing sectors are highlighted, and the profiles of the producers involved are outlined. The main conclusion is that the planned intervention is inefficient, as the niche of sustainable production emerges without its clear influence. Therefore, it is proposed to re-evaluate planning using alternative analysis frameworks to detect emerging productive dynamics, serving as a basis for future plans.

Keywords: sustainable production; agricultural production; regional planning; transitions to sustainability and development

1. Introduction

Regional planning has attempted to reconcile the pursuit of human well-being with sustainability (Fainstein and Defilippis, 2016). This is because evidence of increased human well-being has been found since 1950 (Kim, Loayza, and Meza, 2016). However, in the same period, there have been negative impacts on ecosystems, increased pollutant emissions, and species extension caused by economic growth, through which well-being is improved (Ceballos et al., 2017; Foley, 2005).

In territories far from large productive agglomerations, regional planning has focused one of its approaches on the grouping of municipalities with the purpose of generating territorial development based on productive logics that improve human well-being (Moncayo, 2019; Cuervo, 2019). The previous view continues to try to integrate dynamics that consider environmental and productive aspects simultaneously. In this sense, the sustainable development perspective emerges as an answer, but it still fails to adequately integrate the limits of growth (Melgar, E., and Hall, C., 2019).

Consequently, transitions to sustainability are a framework of interpretation that seeks changes in the way society produces and consumes resources. "Transitions are therefore co-evolutionary processes, involving changes in a number of elements and dimensions. Transitions are not linear processes but involve multiple and interdependent developments" (Köhler et al. 2019, p. 3).

Transitions to sustainability in developing contexts always involve the destabilisation of regimes, technological substitution, and how the fractured character of regimes influences the opportunities for their transformation (Van Welie et al., 2018, cited by Köhler et al., 2019). This implies

changes, and according to Fainstein and Defilippis (2016), planning is about changes, and this is a meeting point with transitions to sustainability, where changes in niches, regimes, and landscapes are analysed.

In the above context, the Colombian case is analysed in the province of García Rovira, which has twelve municipalities. In these municipalities, there is a planning regime that tries to apply territorial development agendas on a national scale through development plans. These agendas are found in the planning instruments and have to do with the Sustainable Development Goals (SDGs), productivity, and competitiveness, with little context on the realities of the municipalities.

Territorial development goals beyond the SDGs are based on concrete indicators such as the GNI. When reviewing the development plans related to the periods of the 1993, 2005, and 2018 censuses from which the GNI data is obtained, the following can be observed: The planning regime has always set a goal to have a GNI below the departmental average. However, this indicator continues to lag behind the department of Santander. In the last Colombian census (2018), the province's GNI was 19.31% and that of the department of Santander was 15.69%.

Additionally, national agendas often emphasise increasing the sustainable production of its main traditional products, such as maize and beans, as a way to improve well-being. However, a decline in these types of products has been observed in the province. For example, according to statistics found in the last agrarian census (2014) and official data from agronet.gov.co, it is evident that bean production went from 5750 metric tonnes (tn) in 1992 to 1992 tn in 2018.

As a result, the current planning regime insists on declining traditional production and has failed to achieve its objective of reducing welfare gaps. Therefore, there is a need to explore the new production niches that are emerging in the province and how they are addressing the environmental perspective in response to both the decline of traditional production and the territorial development agendas of the planning regime.

Accordingly, the literature on the multi-level perspective of transitions towards sustainability, related to planning, provides a framework for interpreting the case study. In this sense, according to Geels (2014), Jorgensen (2011), and Hundscheid et al., (2022), the multilevel perspective combines concepts from economics, sociology, and institutional theory to analyse the interaction between actors and the trajectories of changes at the level of niches, in this case, related to environmental aspects. These niches can then become regimes and, subsequently, an existing order—the landscape (Geels, 2014).

For Fainstein and Defilippis (2016), planning is about change, and this is a meeting point with sustainability transitions, where changes in niches, regimes, and landscapes are analysed. The niche is the micro level, where innovations can emerge that are subsequently linked to regimes; at this level are the local actors (Guerrero, J., Escobar, J., and Restrepo, L. 2018).

In this sense, examining the relationship between planning and sustainable transitions is relevant to understanding the politics of transition and the dynamics of cities and regions (Carrolli, 2018; Cowell and Owens, 2006; and Adil and Ko, 2016). Likewise, regional approaches attempt to generate global welfare through the introduction of new socio-technical regimes (Spatha and Rohrerherb, 2010). Planning contributes to sustainability transitions to identify legacy, facilitating, and also hindering roles (Carrolli, 2018; Adil, A., and Ko, Y., 2016).

A significant challenge is the existing regime, which maintains conditions that require change. The debate focuses on deciding if change can occur within this regime or if a new sustainable niche must be established to form a new regime, as discussed by Geels (2014). Planning can aid in shaping this change with tools, as noted by Caroli (2018) and Davidson and Arman (2014). Köhler et al. (2019) highlight that studies on transitions to sustainability delve into conditions of stability and transformation.

Consequently, with all of the above, the aim of this paper is to understand the influence of the planning regime on the agendas that seek territorial development in the province, as well as the capacity of these agendas to generate sustainable production niches and to determine the factors that foster their transition. To this end, information from the last three Colombian censuses (1993, 2005, and 2018), the latest rural census (2014), and Colombian state statistics on production are analysed.

Development plans implemented in the province are also studied. In addition, 25 semi-structured interviews were conducted with producers and actors in the planning regime to identify emerging niches.

2. Literature Review: Planning, Multi-Level Perspective, and Agency

Examining the relationship between planning and sustainable transitions is relevant to understanding the politics of transition and the dynamics of cities and regions (Carrolli, 2018; Cowell and Owens, 2006; Adil and Ko, 2016). Likewise, regional approaches attempt to generate global welfare through the introduction of new socio-technical regimes (Spatha and Rohrer, 2010). However, the relationship between planning and transitions is a nascent framework of analysis (Carrolli, 2018).

Therefore, in this study, the relationship is analysed from a multilevel perspective in the regime category. For Geels 2014 and Hunscheid et al., 2022, the multilevel perspective considers interactions between landscape, regime, and niche through which changes are generated. According to Nieminen, J.; Salomaa, A.; and Juhola, S. (2020), regime is the hegemonic system that encompasses rules and domains, and they consider that planning can be analysed as a regime because it contains the normativity of the system; landscape refers to the context, i.e., long-lasting economic and political trends; and niches are defined as spaces for innovation that are protected from the dominant rules, thus offering an opportunity to challenge it.

Consequently, for this research, planning, and in particular the National Planning System, is also considered a regime. In the literature on transitions to sustainability, some gaps have been identified. These include a tendency towards generalisation, a lack of practical implementation, and a lack of consensus on the definition of the concepts of niche, regime, and landscape. In addition, there is a predominant urban focus in the studies, with a paucity of analysis on countries in the Global South (El Bilali, H. 2019; Nieminen, Salomaa, A., and Juhola, S., 2020).

From these gaps, this study contributes to the practical implementation of the multilevel perspective in a Global South context, specifically in terms of analysing a rural production niche that can change the development planning regime. Changes occurring in the context (landscape) can influence both the emergence of new niches and changes in the established regime. According to Van Rijnsoeve and Leendertse (2020) and El Bilal (2019), change can be promoted by the pathway of experimentation occurring in niches, which implies an ongoing transition through the niche.

The niche provides a platform for experimentation, from which innovative elements, both social and technological, can be incorporated into planning processes (Carrolli, 2018). For Asheim et al. (2022), the literature on innovation systems, together with the multi-level perspective, has offered insights for the transformation of regional innovation systems.

In this context, regional innovation policy is interpreted as a tool to reconfigure industries and foster sustainable production and consumption practices, thus helping to address social challenges. Rodríguez and Alvarado (2008) define innovation as new forms of management and tools to improve social conditions in Latin America. This framework contributes to the understanding and direction of transitions.

However, according to Goulet et al. (2019), innovation policies have weaknesses such as the focus on large corporations, the marginalisation of small producers, the delegation to the private sector, and the lack of integration between technology and society.

Radical innovation originates in niches, which are commonly considered small, localised, usually urban, and protected spaces with an organised structure (Ehnert et al., 2022; Rob et al., 2011). However, in practice, many of these niches are formed in a non-linear way due to the intervention of various actors. At the niche level, the network of actors and their interactions are key elements, as they facilitate the transfer of objectives between participants (Kivimaa, Hyysalo, and Klerkx, 2019; Rob et al., 2011).

Fischer and Newig (2016) consider agency to be important for transitions and argue that it is little considered from a multilevel perspective. Agency refers to the level of influence an actor exerts in a change process. For Geels (2014), niche actors can create a starting point for systemic change. At

this micro level, actors can be individuals or small groups of actors, with local practices that differ from the regime.

Rob et al. (2011) propose the identification of four moments that allow for an in-depth analysis of the notion of agency: problematization, interest, inscription, and mobilisation. These moments provide a structure for understanding how actors exert their influence in various niches. In the same vein, Fisher and Newig (2016) argue for the perspective that a niche functions as an enabling space that fosters broader agency. Within such a niche, actors play a crucial role in introducing and implementing new ideas, which often come from the governmental sphere.

Accordingly, the aim of this paper is to understand the influence of planning on agendas that seek territorial development in the province, as well as the capacity of these agendas to generate sustainable production niches and determine the factors that foster their transition. To this end, information from the last three Colombian censuses (1993, 2005, and 2018), the latest rural census (2014), and Colombian state statistics on production are analysed. Development plans implemented in the province are also studied. In addition, 25 semi-structured interviews were conducted with producers and actors in the planning regime to identify emerging niches.

3. Methodology

The proposal was carried out with a mixed approach and used a case study in a province with twelve municipalities. The quantitative approach allowed for descriptive analyses of the province to establish an understanding of the evolution of traditional production. The qualitative approach provided detailed information to explain the niches of sustainable production. In addition, the mixed approach allows for minimising the weaknesses of both quantitative and qualitative approaches (Creswell, 2013).

Regarding the time period between 1990 and 2020, it allowed the following to be analysed: the most important milestones of analysis refer to the economic opening in Colombia that was consolidated from 1990 onwards. In addition, the 1991 Constitution formalised the beginning of the national planning system and the national environmental system. In addition, the national and departmental development plans carried out during the proposed period of time, including those approved in 2020. In these planning instruments, the national territorial development agendas were identified, which subsequently reached the municipalities.

For the quantitative analysis, the databases of the Colombian Census of the National Department of Statistics were used: 1993, 2005, and 2018, as well as the 2014 rural census and the Colombian government statistics on agricultural production found on agronet.gov.co. Based on this information, a descriptive analysis was carried out to explore the evolution of total agricultural production and products such as maize, beans, and tobacco with a tendency to decline. At the same time, an emerging niche of sustainable production related to cape gooseberry, strawberry, coffee, and tomato was identified.

For the analysis of the emerging niche, a modified version of the method proposed by Van Rijnsoeve and Leendertse (2020) was used. In this method, the producers' environmental production practises and areas where they are experimenting are found through a series of questions. Likewise, the main aspects that characterise the landscape and the regime were identified using secondary information found in Colombian regulations.

In order to obtain the niche information, 25 interviews were conducted with producers in the province, distributed as follows: 8 cape gooseberry producers, 7 strawberry producers, and 5 coffee producers and 5 tomato producers. Additionally, these producers were asked on a scale of 1 to 5 about the incidence of the following variables in their sustainable production: innovation and technology, clean production, infrastructure, culture, capital, associativity, market, and planning.

Also, in order to analyse the relationship of the planning regime with the creation of the niche, five actors were interviewed who have a relevant role at the national, departmental, and municipal levels. Interviews with these actors included the provision of information on the niche that had been identified, both to validate the information and to see what role it could play in future planning processes.

Context of the Research

The case study refers to the Province of García Rovira, in Colombia, which is located in the eastern department of Santander and is made up of the following twelve municipalities: Capitanejo, Carcasí, Cerrito, Concepción, Enciso, Guaca, Macaravita, Málaga, Molagavita, San Andrés, San José de Miranda, and San Miguel.

The province has a productive structure based on smallholdings; its productive potential is based on the agricultural sector, which has little added value; and its social indicators, such as unmet basic needs (UBN), are below average for the department of Santander (Santander Development Plan, 2020; and development plans for the province, 2020).

4. Results

4.1. The Planning Regime and National Sustainable Development Agendas

The relationship between the environment and productive aspects is understood mainly from the Sustainable Development Goals (SDGs) and mentions improving competitiveness and productivity to obtain development, but there is little connection between the two concepts. The relationship behind these goals favours the productive approach from a sectoral perspective (Santander Development Plan, 2020, and provincial development plans, 2020).

The above national agendas reach the municipalities with little translation to their local realities. In this regard, one interviewee argues: "Talking about sustainable development in the province's production with words such as competitiveness and productivity has little to do with our reality; here we have a declining production without technology" (interviewee 9).

In addition, the above concepts are addressed in a very generic way and according to the formats provided by the National Planning Department (DNP). In the case of productivity and competitiveness, we can see the following structure that all development plans follow: Program 1: Productivity and competitiveness of enterprises in Capitanejo Objective of the programme: "to increase productivity and competitiveness of the productive units of Capitanejo through the implementation of actions aimed at correcting market failures" (Plan de desarrollo territorial de Capitanejo 2020-2023, p. 16).

Then, outputs with indicators and targets are set. In this case, the indicators refer to training and promotion events. The target is 2 trainings and 3 training events. Additionally, the planning regime has a structure based on regulations, but it has few elements to connect the environmental dimension with the productive dimension. However, Colombian regulations (articles 5 and 6 of Law 388 of 1997 and Decrees 879 of 1998 and 1077 of 2015) specify that the development of municipalities should be oriented towards harmonising the environmental and productive dimensions. However, as we saw above, based on the information contained in the planning instruments, it is difficult to argue that the environmental and productive functions can be connected in the reality of the province of García Rovira.

4.2. Productive Decline in the Province and the Emergence of the Sustainable Production Niche

As previously mentioned, the planning regime in Colombia is based on agendas that seek sustainable development, focusing on productivity and competitiveness. However, the data presented below (Figure 1) indicate a decline in production both in general terms and in traditional production. However, there is also the emergence of a production niche that adopts environmental practices.

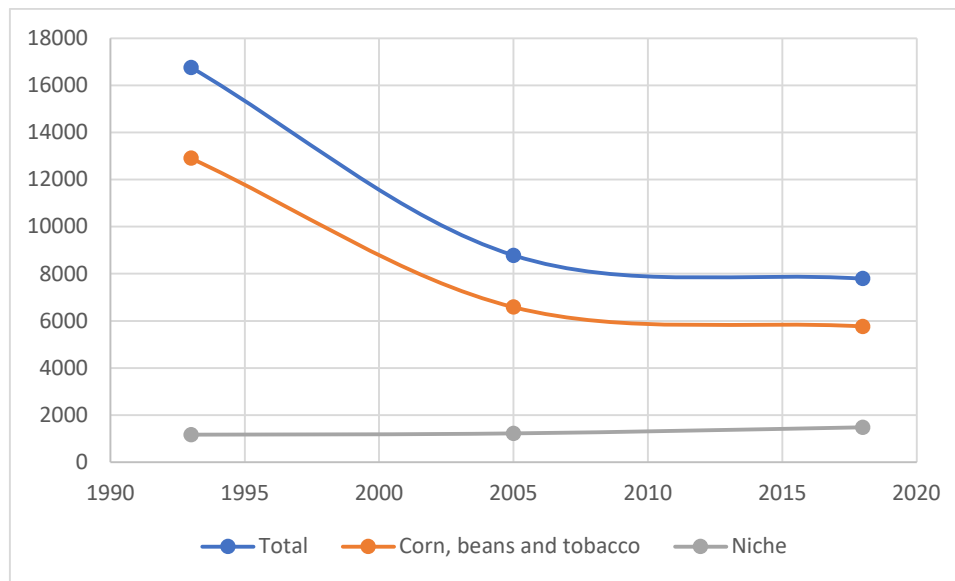


Figure 1. Production in the province of García Rovira: Total, traditional, and emerging niche Source: Own elaboration based on agronet.gov.co, Rural Census 2014 and García Rovira Province Development Plans 2020-2023.

Following Figure 1, a decrease in total production in the province of García Rovira was found from 1993 to 2020. Similarly, the traditional production of maize, beans, and tobacco also follows the same decreasing trend over the same period. It is important to note that these products continue to be included in the targets set by the planning regime.

However, Figure 1 identified an emerging niche that shows a slightly upward trend, in contrast to total production and traditional production. This niche is characterised by the production of mainly cape gooseberry, strawberry, coffee, and tomato. According to Van Rijnsoeve and Leendertse (2020), niches emerge with distinctive characteristics and engage in experimentation processes. In this context, it refers to experimentation in the production process with a focus on environmental practices.

4.3. Niche Production: Characteristics, Experimental Variables, and Elements for Future Planning Processes

It was found that the producers of cape gooseberry, strawberry, coffee, and tomato, who form part of the emerging niche production in the province, share a series of common characteristics. These farmers are distinguished by their ownership of land ranging from 3 to 5 hectares, their technical or university education, their access to capital, and their focus on small-scale production with an environmental approach. However, the above-mentioned characteristics are special compared to most traditional producers in the province.

Producers in García Rovira face challenges such as difficulty accessing credit and limited academic training, and most of them are tenant farmers (Rural Census, 2014). These traditional producers focus their practices on yield without paying much attention to clean production. This is partly because their main source of information comes from agricultural input stores, where they are suggested to use agrochemicals (Moreno, 1997). Consequently, the methodology used facilitates the study of this production niche and makes it possible to identify the factors that influence production from an environmental perspective (Van Rijnsoeve and Leendertse, 2020).

According to Figure 2, the factors that most influence niche production with an environmental approach are mainly related to innovation and technology (4.7), small-scale production (4.5), and infrastructure (4.3). In this sense, one of the producers argues, "To produce clean, it is necessary to have knowledge, and I got that from the university, but the key is on a small scale because if I add more hectares, it is difficult to produce clean, and by principle, I don't use agrochemicals" (Interviewee 3).

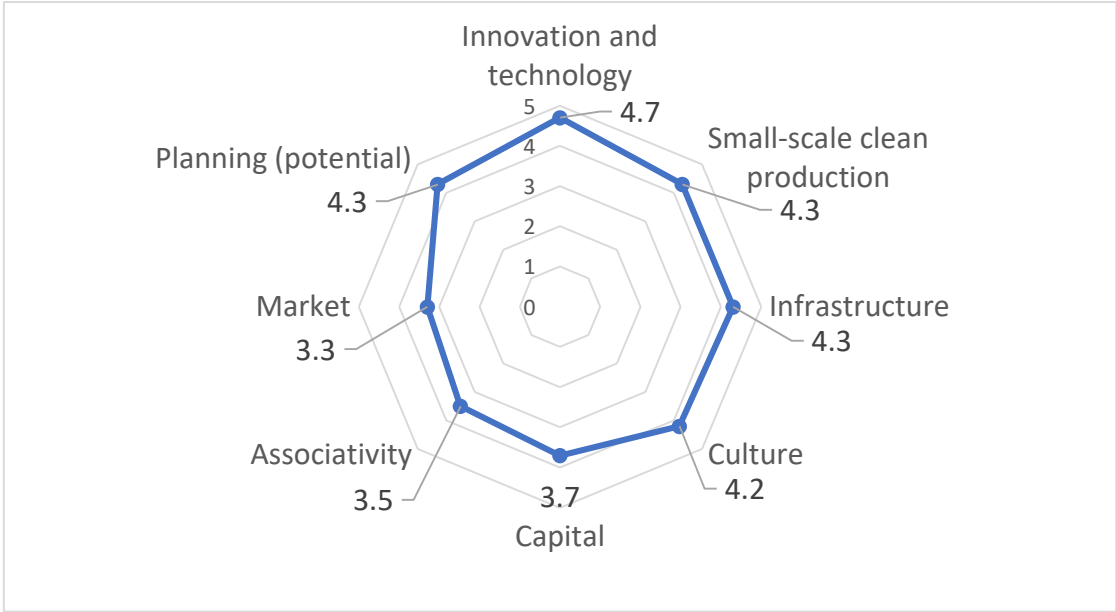


Figure 2. key factors in the niche. Prepared from interviews with producers in the province of García Rovira.

Producers have identified a crucial factor related to culture, which has been rated with a value of 4.2. This factor is linked to the need for a change in the way we interact with production. This is expressed by one of the producers: "Look, if you ask me about one of the keys to sustainable production, that key is culture because it is what allows me to believe in the way I am producing" (Interviewee 5).

On the other hand, capital (3.7), associativity (3.5), and the market (3.3) are in a similar range of importance. It is noteworthy that access to capital and market knowledge are distinctive features of this particular niche in the province. These producers can access resources and know the market, which makes them a very unique niche. In this sense, two producers express that "the market for sustainable production is guaranteed; everything I produce I can sell easily" (Interviewee 1). In the same sense, "I know that not all producers in the province have access to credit; that is something that needs to be improved, which is why many remain in traditional production" (Interviewee 12).

On the other hand, in relation to these variables, it is important to highlight that initially the influence of planning was recorded as 1.3 in relation to the current situation. However, the value of 4.3 indicates the recognition of the potential that planning processes could have in the future. Producers recognise that their education has enabled them to identify opportunities, such as the type of cleaner production they are developing. So far, the influence of planning in this aspect has been limited.

Producers value the planning processes for their potential to share identified opportunities with others, rating them at 4.3. However, they feel that national productivity, sustainability, and competitiveness agendas are not easily accessible to traditional producers, as the information is often confined to professional or specialised settings. This is how another of the consulted producers puts it:

"Planning could help, but today these processes have had little influence on my productive practices. I found out about them from many of the people I know through forums in my profession where the opportunities and the market for clean production are shown" (Interviewee 7).

In summary, this production niche has atypical characteristics in relation to traditional producers in the province. These producers consider that national agendas can reach local spaces, but they must go beyond specialised spaces, and planning could play an important role in this.

According to Table 1, it was found that the production niche of the province is integrated into an established system (the inclusion system), which is supported by territorial and sustainable

development agendas that are reflected in development plans. However, as evidenced by the analysis of the niche, a process of experimentation is underway in which planning is seen more as a potential and not as a factor that has given rise to sustainable production in the niche.

Table 1. Multilevel perspective in Colombia: the case of the province of García Rovira. Level Description in the province of García Rovira.

Level	
Landscape	National development plan, national commitments to the SDGs, incentives for cleaner production in public banking and education.
Incumbent system	Agenda de Territorial and sustainable development agenda in development plans: productivity, competitiveness and SDGs Experimentation with variables that influence environmental production: small
Niche	scale, technology, infrastructure, culture, associativity, access to capital, market and planning.

Source: elaborated from secondary information and interviews with local actors in the province of García Rovira, based on the methodology proposed by Van Rijnsoeve and Leendertse, 2020.

Furthermore, this niche has a particularity in that part of the variables with which it is experimenting has to do with what is called landscape in Table 1. This concept, from a multilevel perspective, according to Geels (2014), refers to the context in which new practices, technologies, or approaches that have the potential to contribute to sustainability emerge and develop. The variables that the niche experiences and that relate to the landscape have to do with public incentives for sustainable production and the education that producers in this niche have received.

Based on the above, the planning regime is part of the established system (the instrument system). However, potential has been identified on the part of the niche producers, who consider this niche as an opportunity to structure future planning processes. I was not aware that there were producers with a focus on sustainability; I believe that future planning processes should be based on the lessons learned from this type of producer" (Interviewee 13).

In the interviews conducted with the actors in the planning regime, there was agreement on three key aspects. First, there was a lack of awareness of both the decline in production and the emergence of the sustainable production niche. Second, once informed about this niche, interviewees recognised the importance of education as a determining factor in identifying market opportunities and adopting sustainable production practices. Third, although this niche is atypical in that producers have education, land, and access to credit, they consider that there are lessons that can be drawn from the sustainable production niche and applied in future planning processes.

Accordingly, the following is highlighted: Since the producers in the niche come from different municipalities, planning must go beyond the municipality's point of view. The sustainable production niche can serve as a reference for traditional producers, encouraging learning and the use of more sustainable practises. It is important that planning include research processes that allow for the exploration of new possible sustainable production niches.

Agency in the production niche of the province of García Rovira

This section analyses the different moments through which the interpretation of the concept of agency unfolds within the context of the province of García Rovira. The results presented in Table 1 reveal a first moment related to the problems linked to the decline of traditional productive practices, from which emerges the identification of a space conducive to the adoption of sustainable production modalities. The protagonists of this productive sphere are characterised as non-traditional actors, whose influence on the environment of the province of García Rovira is shown in terms of potential.

In this regard, one of the actors in the niche expresses:

My family produced corn, but that ceased to be profitable a long time ago. I realised that I was looking for another kind of production, and sustainability is the key for it to be a business to produce. I believe that those who produce with other knowledge can influence many other peasants across the province (interviewed 5).

Two other respondents also agreed that the traditional production of maize, beans, and tobacco has ceased to be profitable. They both stressed the importance of exploring new forms of agricultural production and were convinced that their innovative methods could serve as inspiration for other farmers throughout the province (Interviewed 1 and Interviewed 2).

With regard to the moment called "interest," following Table 2, it is observed that the agency exercised by the producers has an influence on their neighbours on the estate. Actors in the environmental production niche are focused on fruit and coffee production. About this, one of the interviewees argues, "Some of my neighbours know my process, and I have no problem teaching them, but I always remind them that this, in addition to profitability, is a way of life that implies a different relationship with nature" (Interviewed 1).

Table 2. Agency in the non-traditional production niche of the province of García Rovira.

Moment	Agency mechanism	Actors	Potential influence
Problematization	Traditional production in decline and emergence of a sustainable production niche	Non-traditional producers	Twelve municipalities in the province of García Rovira
Interest	Production with environmental emphasis	Blackberry, strawberry, cape gooseberry, coffee and tomato producers	Farms close to niche producers
Inscription	Green markets, innovation, small-scale production and associativity	Blackberry, strawberry, cape gooseberry, coffee and tomato producers	Expand networks of nearby farms
Mobilization	Planning processes in mayors and departments	Niche producers, mayors, government and National Planning Department	Planning regime

Source: Elaborated from by Rob et al., (2011) and Fisher and Newing (2016) and interviews with producers from the García Rovira province.

Additionally, Table 2, specifically with regard to the time of "registration", suggests that the agency is related to the ability to extend its influence beyond the nearby premises. This sphere of influence is linked to a particular production model that favours both businesses with knowledge of green markets and the emergence of innovation in production methods and small-scale perations. The potential for associativity in this context is therefore highlighted. Accordingly, one producer comments:

Other people I know and I have specialised in sustainable production systems due to our knowledge of the market for organic products. Thanks to the fact that many of us have graduated from the university that is in the province, we have implemented innovations that increase efficiency and sustainability. And of course, although it is not easy, we have taken the lead to extend this knowledge beyond our land neighbours who are initially interested (Interviewed 2).

With regard to the moment called "mobilisation," table 2 shows the agency mechanisms in the planning processes of mayors and departments. The table also suggests the potential to influence the planning regime. In connection with this, one producer says, "I, before becoming a producer, was in a position of popular choice, and therefore I can tell you that this clean production can be incorporated into the planning processes, and from there we can generate real change" (Interviewed 1).

In the interviews carried out, a convergence of views was observed between four actors (interviews 1 and 2 and interviews 5 and 9) and in two critical areas. First, respondents agreed that planning should originate from these new processes that are emerging in the field of sustainable production. They argue that such processes represent a paradigm that must be integrated into any future planning.

Secondly, they stressed that producers are scattered across several municipalities on land with conditions for sustainable agricultural production, which requires the development of regional projects rather than fragmented strategies dictated by the individualities of each mayor. This coincidence of views suggests an urgent need to rethink planning strategies to move from a municipal to a regional perspective.

In summary, the analysis of the interviews reveals that the agency focuses on four producers who possess both the potential and the expertise required to lead transformations in the existing planning regime. Their knowledge of the market, production processes, and certain institutional elements, including those related to planning, places them as key players in future planning initiatives. Based on this specific niche, these actors have the potential to make significant changes to the existing planning system.

5. Discussion

The present study explored literature on regional planning and sustainability and discovered the importance of using frameworks of analysis that transcend sustainable development. Studies show the need to reconcile economic growth with the environmental dimension. An alternative way of looking at this relationship is through transitions to sustainability. In this perspective, the intervention made by the planning regime in Colombia in the province of García Rovira through territorial and sustainable development agendas was analysed, specifically the one related to the SDGs with ideas such as productivity and competitiveness that are poorly adapted to local realities.

Consequently, while the planning regime seeks to reduce territorial disparities between the province of García Rovira and the department of Santander, these continue, and additionally, the province faces a productive decline. Therefore, the multilevel perspective of transitions towards sustainability was used to interpret this reality. This interpretation, based on interviews and data analysis, revealed the identification of a production niche that shows growth opposite to the rest of the production that is in decline.

The use of the multilevel perspective methodology allowed the identification of this niche that is not discernible in conventional planning processes in the province. Thus, this research highlights the importance of employing alternative interpretative approaches in planning processes. Furthermore, the relationship between regional planning and transitions towards sustainability is a developing framework of analysis in the literature. Therefore, this study contributes to the generation of knowledge in this field.

The identified niche provides information on the characteristics of producers that, although different from traditional producers, allow the identification of experimental variables that influence production with an environmental approach. These variables could be scaled up to other levels through planning processes based on this identified niche. However, as evidenced by the niche analysis, such an experimental process is underway in which planning is identified as a potential that should be driven by territorial development agendas.

These findings support the need to use multiple data sources and complementary approaches to gain a more complete understanding of the phenomenon under study. By combining qualitative and quantitative methods, it was possible to identify information about a growing production niche, and through qualitative analysis, it was possible to learn about the characteristics and variables with which this niche was experimenting. Therefore, the importance of adopting a mixed methodological approach to generate new knowledge is highlighted.

Additionally, in the analysis, it was observed that the production niche shows independent behaviour with respect to that established by the planning regime. It is notable that producers in this niche have different characteristics from traditional producers, given that they have access to credit, innovation, and market knowledge. However, it is relevant to highlight that these elements are largely acquired thanks to the academic training of the members of this niche, which validates the transformative importance of education, an important point to consider in future planning processes.

The evidence identified in the niche analysis reinforces the preponderance of innovation and technology as key factors in the implementation of sustainable production strategies. This finding is

in line with the academic literature reviewed, which highlights how the generation of innovations at the community level brings particularly significant value and underlines the need for their inclusion in public policy formulation.

Furthermore, agency theory has limitations in the rural production context studied due to the geographical fragmentation of producers. This fragmentation, which complicates interaction between actors, also does not fit with existing literature that focuses on localised urban niches. However, despite these challenges, we identified actors with a high potential for agency based on their leadership and technical knowledge. These findings suggest that agency theory may need to be adapted to address more complex and diversified contexts, such as the García Rovira province.

Furthermore, development planning emerges as a crucial instrument to guide this process. It provides a framework to steer the integration of these community innovations into public policy, facilitating their institutionalisation and implementation on a larger scale. Thus, niche producers can be seen as key referents in the planning process, bringing their experience and perspective to strengthen the effectiveness and relevance of emerging public policies. This approach can ultimately lead to the adoption of more sustainable production strategies aligned with the needs and capacities of the local community.

Therefore, the study also contributes to the generation of knowledge on the gaps identified in transitions towards sustainability. This is because it analyses a non-urban case and identifies the interaction with the landscape and the emergence of the niche, aspects that many studies do not usually analyse (El Bilali, 2019). In addition, it delves into planning from the regime level and thus also contributes to the relationship between planning and transitions towards sustainability.

The limitations of this study are mainly associated with traditional production, given that no evidence was found, according to the actors interviewed, that this type of producer is adopting an environmental approach in their production. This made it impossible to carry out a comparison with producers found within the environmentally focused production niche.

Consequently, with the above, it is recommended that future planning processes in the García Rovira province include the knowledge acquired by the sustainable production niche from a regional approach. This will promote more sustainable production practices. Furthermore, the integration of this knowledge can contribute to the planning regime's targets related to the reduction of provincial gaps. More case studies that analyse the relationship between planning and the multilevel perspective of transitions to sustainability are also needed.

6. Conclusions

The planning regime analysed presents fragmentation at the municipal level, showing a trend towards productive decline. This system also shows weaknesses in integrating environmental and productive aspects. Worsening the situation, local implementation of the SDG agenda appears to be out of context, which is reflected in development plans that do not correspond much to local realities. Moreover, this planning framework is insufficient to autonomously drive innovation processes that could lead to specialised niches.

With the implementation of the multilevel perspective of transitions to sustainability, a production niche with sustainable practices was found. In Colombia, interventions to address production problems are carried out through the planning regime, which descends to the province through development plans. However, these planning instruments focus on traditional production, which is in decline, and fail to identify rising production that also incorporates environmentally-focused production practices.

Consequently, in the province, these planning guidelines have a limited capacity to generate sustainable production niches. This is due to the fact that the identified niche emerges with little help from the aforementioned planning regime because knowledge of the factors influencing these producers' experimentation comes from scenarios that the regime does not generate, such as professional congresses that take place outside of the province. This niche is scattered, which is a differential attribute with respect to the localised niches shown in the literature.

Additionally, some of the niche actors have the potential to act as agencies because they have specific expertise that could play a crucial role in improving the efficiency of a regional planning process. This latent potential offers an opportunity to reorient and enrich regional development strategies, especially when the current planning regime has numerous shortcomings.

Finally, this analysis contributes to the generation of knowledge to understand the relationship between planning and the multilevel perspective of transitions to sustainability. This contributes to interventions aimed at addressing production problems by considering other analytical frameworks complementary to the Sustainable Development Goals. By incorporating additional perspectives, a more comprehensive understanding and more effective action are promoted to foster sustainable productive practices in the province of García Rovira.

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