

Research Article

© 2024 Ayaviri Nina et al. This is an open access article licensed under the Creative Commons Attribution-NonCommercial 4.0 International License (https://creativecommons.org/licenses/by-nc/4.o/)

Received: 16 February 2024 / Accepted: 8 April 2024 / Published: 5 May 2024

Development Planning in Rural Communities in Bolivia: A Study in the Department of Oruro

Víctor Dante Ayaviri Nina^{1*} José Miguel Giner-Pérez² Gabith Miriam Quispe Fernandez¹ Martha Lucia Romero Flores¹

¹Facultad de Ciencias Políticas y Administrativas, Universidad Nacional de Chimborazo (UNACH), Ecuador ²Departamento de Economía Aplicada y Política Económica, Universidad de Alicante. España *Corresponding Author

DOI: https://doi.org/10.36941/ajis-2024-0070

Abstract

This research aims to determine the most important elements that contribute to the development planning processes in the rural communities of the department of Oruro, Bolivia; It is based on the proposition that democracy in Latin America is in a situation characterized by advances in political rights and deficiencies in the civil and social rights of citizens, rural communities are where the most acute indicators of political, social, cultural and economic exclusion occur. Therefore, the effective membership of rural communities emerges as a peremptory task for the consolidation of their development based on community development planning. It assumes a quantitative qualitative approach, and is of a correlational descriptive type, which seeks the association and relationship of the variables that intervene and influence the community planning processes. A survey is applied to 384 people who live in communities in rural areas, among them the actors in the development of the localities are considered, such as community leaders and heads of households. For the statistical analysis, descriptive statistics and a multiple regression model are incorporated. The research establishes that community participation, ancestral knowledge, along with natural resources are the most important elements that contribute to the planning of the development of rural communities.

Keywords: Development planning, rural communities, participation, traditions, natural resources

Introduction

One of the main characteristics of rural communities is the complexity of their worldview and economic, social, productive and environmental structures (Rotz et al., 2019; Adom, 2019; Lowery et al., 2020; Winter et al., 2021; Tan & Zhou, 2022; Bernard et al., 2023); This complexity comes from their own ways of life, their practices and knowledge about their territory, and the vision of development embedded in the customs and ancestral knowledge of the people, complex processes of productive economic practices that cohabit in their territories (Musekiwa & Mandiyanike, 2017; Cavaye & Ross, 2022), processes and dynamics that generate changes and transformation that operate in the search for the well-being of its inhabitants, a challenge that is the responsibility of local actors (Vázquez-Maguirre, 2020; Sanders et al., 2023; Ayaviri-Nina et al., 2023). The importance of the study of rural communities lies in the production and provision systems of basic foods, the production of inputs for industries, transfer of resources to other sectors, management of natural resources, generation of local and regional economies, Higher concentration activities are found in agriculture and livestock (Afful-Dadzie et al., 2022; Azumah et al., 2023; Tshikovhi et al., 2023; Ramaano, 2023). Over time, rural communities adopted forms of resilience in response to economic and social crises, which are part of their way of life, knowledge and experience expressed as intangible capital, linked to the vision of the development of localities (Lucian, 2018; Paul, 2020; Kalogiannidis et al., 2023).

An important aspect that marks the pace and forms of change and transformation of territories is the planning of the development of localities, which has to do with the generation of objectives, strategies and guidelines operationalized in guidelines or plans that lead to change and development development of localities (Papageorgiou et al., 2019; Petrov, 2021; Crescenzi et al., 2022; Hibbard & Lurie, 2023). Development planning in the rural context is understood as a process of change in the physical, economic and social environment of rural areas and their population (Manggat et al., 2018; Syafila Kamarudin et al., 2019; Lowery et al., 2020; McNamee & Van Horn, 2023). Development planning is a responsibility of the State, through which they drive and promote the progress of rural areas as an act of justice and a necessary condition to raise the quality of life of the rural population (Engwali & Grace, 2018; Nawawi et al. ., 2020; Setokoe & Ramukumba, 2020; Brugmann, 2021; Yudarwati & Gregory, 2022).

One of the central elements that promote and mobilize internal resources is the participation and involvement of the population in the planning processes, these occur to the extent that the conditions, their openness and opportunities are raised by the forces and mechanisms of the communities' own development, these are those solid and empowered community organizations, knowledge, self-determination, organizational and productive systems among others (Szetey et al., 2021; Yudarwati & Gregory, 2022; Lengerer et al., 2022; Gamo & Park, 2022; Hibbard & Lurie, 2023). Development planning in rural communities considers all the existing resources in a locality, human, natural, financial and logistical, included in the economic, social, cultural and environmental sectors of their territories (Papageorgiou et al., 2019; Muhumuza et al., 2023; Frader et al., 2023), in addition to citizen participation (Setokoe & Ramukumba, 2020; Lengerer et al., 2022), local knowledge and traditions (Yudarwati & Gregory, 2022; Brugmann, 2021; Muhumuza et al., 2023) and the care of nature (Adom, 2019; Yudarwati & Gregory, 2022) that are related to the planning processes.

In the Bolivian context, development planning in rural communities is framed within a regulatory framework and local practices. One of the most important reforms enacted was Law No. 1551 on Popular Participation together with the Framework Law on Autonomies and Decentralization No. 031 of July 19, 2010), Popular Participation opened the door to economic decentralization through the municipalities by transferring 20% of national taxes, this transfer has allowed public goods to reach the population through social and development projects (Nijenhuis, 2002; Pape, 2008), but not always in the terms it was conceived, it had some limitations related to the interaction and relationship with localities and regions (Kent et al., 2018; Villalobos & Ebert, 2019). A second Law No 3058 of May 17, 2005 on administrative and economic decentralization was fundamental for the regions, and mostly benefits the governorates and municipalities. At the same time, it is also necessary to observe Law No. 482 of 2014 on Municipal Autonomous Governments, which establishes the formation of the Municipal Autonomous Government in which it recognizes the independence, separation, coordination and cooperation between state institutions and local actors, granting the responsibility for the development of their territories, from the planning process of rural communities (Alderman, 2018; Doyle, 2020; Del Campo & Reinón, 2023).

The poor coordination in the processes of preparing development plans and the formulation of programs from the municipalities in Bolivia has led rural communities to take the initiative to generate their own development plans, although the municipalities are present in the process through timid accompaniment, the population agrees that the essence of planning from municipal governments at the local level has been distorted and there are no spaces for the coordination and articulation of criteria, needs and demands of the population (Kent et al., 2018). Thus, the planning processes would be developed from the communities with the support of other actors such as non-governmental organizations (Nelson-Nuñez, & Cartwright, 2018), and in some cases municipal governments (Doyle, 2020), these processes start from hisworldview, belonging, identity, cultural practices of people and their territories (Alderman, 2018). There is empirical evidence that the action of people and the relationship with natural resources creates a connection between knowledge and ancestral knowledge, a bond that lasts over time and is expressed in their local practices and traditions, incorporated in planning plans community development (Papageorgiou et al., 2019; Adom, 2019; Yudarwati & Gregory, 2022; Muhumuza et al., 2023).

On the other hand, the community social principle fulfills the function of uniting and articulating the economic, social and political functioning of the territorial context, being the main link between the different instances of society (Engwali & Grace, 2018; Muhumuza et al., 2023); Development agents and actors are responsible for guaranteeing the development of localities, based on the structure of local organizations, knowledge and locally defined norms, where they carry out systematic action and intervention in the search for the well-being of the population of the communities rural (Brugmann, 2021). Thus, very little is known about the aspects of the development planning process in rural communities in Bolivia; there are experiences that indicate that these are developed in a community manner and with little participation from local governments, and are focused on prioritization. of aspects linked to community practices. In this context, the research aims to determine the development planning processes in rural communities in the department of Oruro, Bolivia.

2. Literature Review

Development planning in rural communities is considered as an interactive process between various actors and agents that seek to improve living conditions in rural areas, where the perception of the rural population, local resources, culture, endogenous knowledge, productive activity, natural resources and citizen participation are crucial elements in development planning and highlights the role of local community actors as drivers, along with the participation of development agents (Labbé et al., 2005;Comín, 2019; Himawan, & Vitianingsih, 2023), Zhong & Qi, (2013) carry out a study andIn the community of Sanzuodianxiang (China) analyzing the planning and construction process of rural communities, using specific projects as a starting point and regional characteristics as a guide, the study provides a detailed description of rural community planning from the perspective of community projects managed from the community.

It is important to highlight the research carried out by Rafi et al., (2017) who mention that the town government must encourage community participation and collaborate with existing institutions to reach agreements and achieve empowerment of the population; Without a doubt, participation finds a space and priority in the decisions in the preparation of rural community plans (Jomehpour, 2017; Sutiyo, & Maharjan, 2017; Mustanir et al., 2022), citizen participation in rural planning and development fosters sustainable rural communities (Prayudha et al., 2022; Yan et al., 2023); It is worth mentioning that the accompaniment of the participation of local and surrounding institutions contributes to good local participatory planning (Syam et al., 2022); Thus, local infrastructure along with social equity also receives special attention as elements embedded in local planning (Szetey et al., 2021).

On the other hand, they also refer to the fact that rural planning faces challenges related to the use of land and local resources as an alternative for development and sustainability (Natarajan, 2019;

Kapsalis, 2023; Ayaviri et al., 2023), along these lines, development planning is known as the bottom-up approach, that is, it begins in the community and from there, seeks its development (Ayaviri-Nina et al., 2017; Quispe Fernandez et al., 2018), based on participatory methodologies and with a very strong focus on the care of natural resources and local assets, such as productive capacity (Gusmanov et al., 2020; Sisto et al., 2022), which the strength and dynamics of localities based on their strengths then also implies theinstitutional transformations and the sustainable development of rural areas (Ugwoke, 2021; Ukhalina & Rosinformagrotekh, 2023). Other elements such as environmental protection and good administration of natural resources are relevant in community planning, to the extent that the population recognizes them as a driving factor and sustainable exploitation, they will be considered in their planning (Stan & Cortel , 2022; Ramaano, 2023).

There are studies that establish the characteristics of the communities and their own planning processes, which can be based on knowledge (Fraher, 2023), ancestral knowledge and knowledge of their culture, traditions and own forms of planning is a constant that they have practiced by communities throughout the decades of existence, and this has allowed them to guarantee subsistence through local productive activities (Kaosalis, 2023), local knowledge drives participation focused on the search for collective well-being, social inclusion and local development of communities (Muhtar et al., 2023). Therefore, local knowledge inherited by generations and understood as norms and rules of the game, allows the construction of planning and development scenarios for rural communities (Hibbard & Lurie, 2023; Lengerer et al., 2022; Muhumuza et al., 2023).

3. Theoretical Aspects

3.1 Institutional reforms in Bolivia

In the 1990s and early 2000s, Bolivia introduced reform measures that led to a reduction of the government and the State in terms of development, through the implementation of decentralization and privatization policies. On April 20, 1994, Law 1551 on Popular Participation (LPP) was promulgated, inaugurating the cycle of a state effort aimed at promoting citizen participation in public management, as part of the second generation reforms, which sought to reverse the central problems of structural adjustment, sought to combine decentralization with broad social participation of population groups mainly in rural areas (Pape, 2008). What it seeks is the integration of the rural population, which had been marginalized politically, socially, culturally and economically. The rural population is largely made up of indigenous peoples who belong to 36 different ethnic groups and represents 65% of the total Bolivian population (Kent et al., 2018).

The first step towards the new order was the constitutional reform, in which new administrative structures were created. These include administrative deconcentration with a displacement of tasks and decisions at the departmental level, as well as the creation of municipal governments, which are equipped with regulatory, executive, administrative and technical functions within territorial jurisdictions (Morales, 2021). In this way, powers were transferred from the central State to the 327 municipalities, whose municipal administrations are designated as autonomous local governments in the Municipal Law (Villena-Martínez, 2023). Thus, the local planning process contemplates the entire population, through its grassroots territorial organizations, as potential actors in the design and management of its own development under essential guidelines of the territorial planning system, including recognized actors and organizations by the Bolivian state, such as representatives of local organizations, territorial grassroots organizations, community associations and the surveillance committee (Fernández, 2018).

Bolivian decentralization was complemented with the promulgation of Law 1654 on Administrative Decentralization (LDA) of 1995. This Law regulates the decentralization regime of the Executive Branch at the Departmental level, which consists of the transfer and delegation of technical-administrative powers. The Government is responsible for national policies, as well as

defining technical standards, thus maintaining the principle of unity in the provision of social services (Tockman, 2016). It introduces a process of formalizing social participation, based on two central criteria: the first, the recognition of organizations and their representation mechanisms, according to uses and customs and, the second, the implementation of the territorial criterion. as an important element to establish State interventions; Likewise, the recognition of social organizations is intended to maintain the validity of the uses and customs of the social fabric, because the LPP does not create new forms of social organization, but rather respects its own (Alderman, 2018; Del Campo & Reinon, 2023). In the case of rural and indigenous peoples and communities, the right to identity and autonomy to generate their own community development plans and strategies is preserved (Augsburger & Haber, 2018). Regarding public bodies, the Political Constitution of the State in its art. 201, attributes to municipal governments the powers and responsibility of preparing the annual operational plans of the municipalities and their communities. The latter is where there are weaknesses in not integrating and coordinating the preparation of development plans for rural communities.

3.2 Community participation in development planning

Planning from the community system is integral collective and expresses its reality, culture, identity of its ancestral structures, thus the paradigms originate based on the nature of a cultural system and as a consequence of the expression and life systems local (Gamo & Park, 2022). An important aspect is the participation of the original authorities, a concept that is addressed from a regulatory and process approach; normative, because it conceives participation as a means that supports a democracy of citizens, that is, with emphasis on the human rights of the populations (Villalobos & Ebert, 2019; Lengerer et al., 2022; Gamo & Park, 2022), and the ethnodevelopment of rural communities and indigenous peoples, understood as processes and instruments linked to their development focused on fundamental rights (Engwali & Grace, 2018; Setokoe & Ramukumba, 2020). Thus, the participation of the original authorities is understood from a process vision; that is, analyzing the strategic as the result of the interaction between actors that has a place within an institutional framework, although with references, but in permanent construction of its planning (Hibbard & Lurie, 2023).

Based on the postulates of democracy and the rights-based development approach, and taking into account what Muhumuza et al., (2023) classified minimum intangible rights as a non-derogable principle, the participation of the people in the planning of the development as a process that, given its recognition as a collective right, has the substantive objective that through it the integrity, ways of life, political organization and development priorities of the communities are respected, thus being framed in a deepening of democracy supported by the strengthening of citizenship (Papageorgiou et al., 2019; Hibbard & Lurie, 2023).

Due to the previous postulates, local governments have the obligation to ensure participation processes for rural communities, before, during and after the implementation of measures that could affect them; that is, ensuring their participation in all phases of the development planning process (Setokoe & Ramukumba, 2020; Gamo & Park, 2022; Lengerer et al., 2022). Under these postulates, communities have the right to intervene in all phases of the design, execution and evaluation cycle of development plans, policies, programs and projects, consequently their local planning (Engwali et al., 2018; Brugmann, 2021).

4. Methodological Aspects

The research is descriptive and correlational, on the one hand it describes the phenomenon of study, the elements that configure the development planning process in rural communities, and on the other hand, it seeks the association and correlation of the independent and dependent variables, which allows perform a reading on their behavior; assumes a qualitative and quantitative approach. The rural population of the department of Oruro reaches 155,768 (INE, 2022), the sample units

included in the study correspond to the number of households, for this it is divided by the average number of members that make up a family, for Bolivia it is of four (Doyle, 2020), with 38,942 households and the sample of 384, it is worth mentioning that the study contemplates simple random sampling. For this, a questionnaire has been developed with dichotomous, structured questions, Likert and open scales, and a survey was applied in 27 rural municipalities, the distribution was proportional based on the number of inhabitants. Likewise, secondary sources are used such as documents and reports identified in municipal governments, specialized literature and existing documentation in the communities. To test the alternative hypothesis, the multiple linear regression model was used, which allowed confirming the theoretical approach and its empirical evidence.

5. Results

The results are presented in two blocks, in the first the descriptive statistics are described, in the second, the hypothesis is tested through multiple linear regression. Of the population surveyed, 66.7% are male, while 33.3% are female, regarding the education of the population, it is observed that 70.3% claim to have a level of basic education, and 22.1% indicate that they have a high school level education, and it is also observed that 4.3% correspond to a untrained population. In occupation, agricultural activity stands out at 47.9%, along with livestock with 35.9% as the main economic activities in rural communities.

A question was asked about knowledge of the law on autonomy, 68.2% claimed to know the law, while 31.8% were unaware of the existence of the law on autonomy that transfers responsibility for territorial planning to local governments. Along the same lines, 37% of the population surveyed has a high level of knowledge regarding planning in the area of autonomies, while 44.8% claim to have a low level of knowledge. The planning processes from the municipalities are observed by the population in a good way, in a percentage of 23.7%, and a significant group of the population indicates that it is bad, as well as 35.7% who consider that it is not good nor bad. The participation of the population has special relevance in the analysis, thus the results reflect that the population participates in the processes by 88%, and 12% indicate that they do not participate in the planning of their communities. It is worth mentioning that 90.6% of the population indicates that they carry out planning in their community, there is a percentage of 9.4% that affirms that they do not carry out planning in their community.

For an analysis of relationships between the variables, contingency tables are presented that allow measuring the interaction between them. Table 1 shows the importance of ancestral knowledge in community planning.

Table 1. Importance of ancestral knowledge in planning

	nportant is local ancestral knowledge in the planning process?										
		V	ery	Immoutant		Neither in	Less		Nothing		
		important		Important		unimportant		important		important	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Do you do your	Yes	225	64.8%	93	26.8%	29	8.4%	0	0.0%	0	0.0%
local planning?	No	21	58.3%	14	38.9%	1	2.8%	0	0.0%	О	0.0%

Source: self made

As can be seen in Table 1, of the population that affirms that they carry out planning in their community and that they give it very important importance, it reaches 64.8% along with 26.8% who consider ancestral knowledge important in planning. It also reflects a chi square of 3.21 and a sigma of 0.03, which indicates that there is a correlation and association between the variables analyzed;

which coincides with the theoretical approach in which the practices and local knowledge of the population contribute to supporting the planning processes of the localities.

The participation of local actors and the population plays an important role in local planning processes, therefore, table 2 shows the relationship between the different local actors with local planning.

Table 2. Local actors and local planning.

			Those who participate in the community planning process									
		Local	leaders		ith and escents	Churc	h leader		hool chers	Ot	hers	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Do you do your local	Yes	317	91.1%	23	6.6%	1	0.3%	2	0.6%	5	1.4%	
planning?	No	30	83.3%	3	8.3%	О	0.0%	0	0.0%	3	8.3%	

Source: Self made

Table 2 shows an important participation of local actors in the planning processes of rural communities, it reaches 91.1%; followed by young people and adolescents at 6.6% of the population who claim to carry out local planning; As can be seen, church leaders and school teachers are also observed. This scenario allows us to affirm that community leaders and local organizations, together with young people and adolescents, are the ones who lead the planning processes of their localities. It presents a Chi square of 8.1 and a sigma of 0.04, which reflects that the analyzed variables contribute to the approach and understanding of the study phenomenon. This also shows the importance that the population places on natural resources in the planning processes (see table 3).

Table 3. Importance of participants in planning in relation to natural resources

			How important are natural resources in planning processes?									
			Very		Important		Neither important		Less		Nothing	
			important				nor unimportant		important		important	
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
Do you participate in	Yes	217	64.2%	119	35.2%	2	0.6%	О	0.0%	О	0.0%	
your community planning processes?	No	31	67.4%	14	30.4%	1	2.2%	0	0.0%	0	0.0%	

Source: Self made

Of the population surveyed that affirms their participation in the planning processes, 64.2% and 35.2% consider natural resources very important and important respectively as a relevant element to consider in community planning, that is, they The responsible care and administration of the local natural resources of its rural territory is highly important. A Chi square of 5.42 and a sigma of 0.034 are observed, which reflects that it has a moderately significant relationship. Consequently, it could be stated that natural resources are a key element in the planning processes of rural communities in Bolivia.

Testing the hypotheses 5.1

To contrast the main hypothesis of the research: Ancestral knowledge, population participation and natural resources are the most important elements that contribute to the development planning processes of rural communities in the department of Oruro, the statistical model used is multiple linear regression, being its mathematical expression.

$$Y_i = \beta o + \beta_1 X_{i1} + \beta_2 X_{i2} + \ldots + \beta_K X_{iK} + \varepsilon_1$$

 Y_i = Variable dependiente

 $\beta o = Constante$

 β = mide la similitud del comportamiento de las variables

 $X_{i1} + X_{i2} + X_{i2} = Variables independiestes$

To do this, the study variables are coded in Table 4, and the results of the model summary are presented in Table 5.

Table 4. Coding of the variables under study

Variables	Analyzed variable	Code
Dependent variable (Y) Development planning in rural communities	Do you plan for the development of your community?	PLAN
Independent variables (Xi1)Ancestral knowledge	How important is local ancestral knowledge in the planning process?	CONO
(Xi2)Population participation	Do you participate in the planning processes of your community?	PART
(Xi ₃)Natural resources	How important are natural resources in your community planning processes?	RRNN

Source: self made

Being the linear regression formula:

 $Y(PLAN) = \beta o + \beta_1(CONO) + \beta_2(PART) + \beta_1(RRNN) + \varepsilon_1$

Table 5. Summary of the first model

Model	R	R squared	corrected R squared	Standard error of estimate				
1	.754	.562	.512	.81256				

Source: self made

The summary of the model reflects a correlation coefficient of 75.4%, the degree of dependence between the variables is 56.2%, which represents a strong relationship between the dependent variable development planning in the communities and the independent variables, however there is a 25% that will be explained by other variables that were not addressed in this research. A value of 0.003 sigma is also observed. Therefore, the alternative hypothesis is approved: Ancestral knowledge, population participation and natural resources are the most important elements that contribute to the development planning processes of rural communities.

Discussion 6.

Development planning from a theoretical perspective gains importance in the territorial area at the urban and rural level, with regard to the urban area, they are focused on urban planning, spatial and territorial planning, productive economic activities and social and environmental aspects. and cultural (Kent et al., 2018; Tshikovhi et al., 2023); Along the same lines, in the rural area, planning is focused on the regions and their localities, the main productive, social, environmental activities, natural resources, interventions of the elements that make up a philosophy, a vision and a local action based on of its population (Engwali & Grace, 2018; Papageorgiou et al., 2019; Fraher, 2023; Muhumuza et al., 2023; Hibbard & Lurie, 2023; Szetey et al., 2023).

The results of this research establish that the ancestral knowledge of the population based on their customs, the appreciation and respect for their traditions both in the care and management of local resources is a central element that they consider in the planning processes of their communities. In this perspective, similar studies agree that the local knowledge of rural families is a factor present in the planning of localities (Brugmann, 2021; Lengerer et al., 2022;; Muhumuza et al., 2023); That is, the teaching inherited by their ancestors or predecessors takes precedence over any situation of radical and sudden change that the population could experience (Yudarwati & Gregory, 2022; Gamo & Park, 2022), therefore, they prioritize and put knowledge first local culture and customs in the planning of their localities.

Likewise, the participation of the population in the planning processes contributes to the planning processes of the communities, apart from the Popular Participation Law that establishes a framework of action for local governments so that the communities are considered in the plans of development, are localities mobilized and empowered by their own practices that develop a general plan focused on strengthening their main productive and social activities that benefit the entire population and their communities. Recent research also shows similar results, where the participation of its local leaders and the joint population is one of the elements that has historically characterized its development, consequently, they define among the pillars of local planning (Setokoe & Ramukumba, 2020; Szetey et al. al., 2021; Lengerer et al., 2022; Hibbard & Lurie, 2023), the degree of citizen participation and involvement in the decisions of leaders and their local institutions will influence territorial changes and transformations and, therefore, their communities (Hibbard & Lurie, 2023).

Finally, the research identifies natural resources as an element present and prioritized by the community in the planning processes, the care and administration of natural resources is fundamental in their agricultural and livestock production system (main activities), these are reflected in the rotation of lands and grasslands, an equitable distribution of water resources, care of native plants, reforestation and sanctions for the indiscriminate use of all natural resources, also includes fauna and flora. Other research specifies this element as a variable present in local and territorial planning (Brugmann, 2021;Ramaano, 2023;Sanders et al., 2023),strengthening the internal processes of its reference organizations and its population in the administration of the natural resources available in a community (Vázquez-Maguirre, 2020). Thus, care and respect for natural resources is a notable aspect in the communities analyzed in this research.

7. Conclusions

The research conclusions are relevant in terms of contribution to the scientific community, local governments, local actors and the rural population. During the theoretical and literature review, studies related to development planning in rural contexts have been identified, specifically rural communities, the literature is extensive, there are several elements that configure the planning processes, such as culture, politics, environment, economic resources, local, natural resources, participation and local knowledge, depending on the context of study. The present research focuses the analysis on the variables with the highest incidence both in the literature and the data collection in the rural communities of the department of Oruro, Bolivia.

Once the hypothesis has been tested, it is established that the ancestral knowledge of the population inherited from the ancestors is, without a doubt, one of the elements that defines and contributes to local planning processes; together with the participation of the population, the involvement and empowerment of local needs and decision-making in a coordinated and joint manner in the search for the social and economic well-being of the localities; and a third element with similar importance, attributed to natural resources, the care and administration of local resources based on norms and customs has created a culture of respect for the environment, the soil, the rivers, the fauna, the flora, and its environment that is contemplated in the community planning

processes. These three elements present a high relationship with the dependent variable.

Finally, it is noted that local governments are not involved in supporting the development of community plans, nor are they the ones who sponsor or promote them, it being a responsibility according to the Law of Popular Participation and the Law of Autonomies and Decentralization to promote territorial planning to community level, rather, this process is developed at the regional level; That is, they prepare the territorial development plan, where the rural communities are immersed, and which in some cases, do not necessarily respond to the real needs and demands of the rural communities.

References

- Afful-Dadzie, E., Lartey, S. O., & Clottey, D. N. K. (2022). Agricultural information systems acceptance and continuance in rural communities: A consumption values perspective. *Technology in Society*, 68, 101934. https://doi.org/10.1016/j.techsoc.2022.101934
- Adom, D. (2019). The place and voice of local people, culture, and traditions: A catalyst for ecotourism development in rural communities in Ghana. *Scientific African*, 6, e00184. https://doi.org/10.1016/j.sciaf.2019.e00184
- Alderman, J. (2018). Indigenous autonomy and the legacy of neoliberal decentralization in plurinational Bolivia. *Latin American and Caribbean Ethnic Studies*, 13(1), 1-21. https://doi.org/10.1080/17442222.2018.1417692
- Augsburger, A., & Haber, P. (2018). Constructing indigenous autonomy in plurinational Bolivia: Possibilities and ambiguities. *Latin American Perspectives*, 45(6), 53-67. https://doi.org/10.1177/0094582X18791
- Ayaviri-Nina, D., Quispe-Fernandez, G. M., & Borja-Lombeida, M. E. (2017). El capital social en el desarrollo local comunitario. Un estudio en comunidades rurales de Bolivia. *Revista Galega de Economía*, 26(2), 77-88. https://doi.org/10.15304/rge.26.2.4312
- Ayaviri-Nina, V. D., Giner-Pérez, J. M., Martínez de Meriño, C. Y., & Vallejo Montoya, E. A. (2023). Ideal del desarrollo de los actores locales en comunidades rurales: Una mirada desde la perspectiva latinoamericana. *Revista De Ciencias Sociales*, 29, 450-461. https://doi.org/10.31876/rcs.v291.40966
- Ayaviri, D; Giner Pérez, J. & Quispe, G. (2023). Development planning in rural contexts. A theoretical approach, *Interciencia*, 48(9), 449-456.
- Azumah, F. D., Onzaberigu, N. J., & Adongo, A. A. (2023). Gender, agriculture and sustainable livelihood among rural farmers in northern Ghana. *Economic Change and Restructuring*, 56(5), 3257-3279. https://doi.org/10.1007/s10644-022-09399-z
- Bernard, J., Steinführer, A., Klärner, A., & Keim-Klärner, S. (2023). Regional opportunity structures: A research agenda to link spatial and social inequalities in rural areas. *Progress in Human Geography*, 47(1), 103-123. https://doi.org/10.1177/03091325221139980
- Brugmann, J. (2021). Is there method in our measurement? The use of indicators in local sustainable development planning. In The Earthscan Reader in Sustainable Cities. Routledge.
- Cavaye, J., & Ross, H. (2022). Community resilience and community development: What mutual opportunities arise from interactions between the two concepts?. *Community Development for Times of Crisis*, 75-96. https://doi.org/10.1080/15575330.2019.1572634
- Comín, F.A. (2019). Planning the Development of Urban and Rural Areas: An Integrative Approach. In: Leal Filho, W., Azul, A., Brandli, L., Özuyar, P., Wall, T. (eds) Sustainable Cities and Communities. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-71061-7_95-1
- Crescenzi, R., De Filippis, F., Giua, M., & Vaquero-Piñeiro, C. (2022). Geographical Indications and local development: The strength of territorial embeddedness. *Regional Studies*, 56(3), 381-393. https://doi.org/10.1080/00343404.2021.1946499
- Del Campo, E. & Reinón, M. (2023). Decentralisation or Recentralisation in Bolivia? Autonomous Territorial Entities and Intergovernmental Relations in a Decentralised State. *Public Organization Review*, 23(3), 1001-1016. https://doi.org/10.1007/s11115-022-00653-6.
- Doyle, M. (2020). The paths to autonomy: plurinational reform and indigenous governance in contemporary Bolivia. Latin American and Caribbean Ethnic Studies, 16, 352 373. https://doi.org/10.1080/17442222.202 0.1821444
- Engwali, F. D., & Grace, M. M. P. (2018). Implication of rural population in planning local community development: a need for policy reform. *Asian Journal of Agriculture and Rural Development*, 8(2), 223-230. ttps://doi.org/10.18488/journal.1005/2018.8.2/1005.2.223.230

- Fernández, F. (2018). Municipio, sistema de cargo y autonomía indígena en Bolivia: el caso de Jesús de Machaca, departamento de La Paz. *The Journal of Latin American and Caribbean Anthropology*, 23(3), 579-592. https://doi.org/10.1111/jlca.12323
- Fraher, E., Page, C. P., Hawes, E. M., Galloway, E., Pathak, S., Tomola, L., & Holmes, G. M. (2023). Bolstering the rural physician workforce in underserved communities: Are Rural Residency Planning and Development Programs finding the sweet spot?. *The Journal of Rural Health*, 39(3), 521-528. https://doi.org/10.1111/jrh.12735
- Gamo, B. R., & Park, D. B. (2022). Community capacity influencing community participation: Evidence from Ethiopia. World Development Perspectives, 27, 100448. https://doi.org/10.1016/j.wdp.2022.100448
- Gusmanov, R., Askarov, A., Lukyanova, M., Kovshov, V., & Stovba, E. (2020). Strategic planning of rural development based on foresight methodologies. *Scientifica*, 2020, 1–10. https://doi.org/10.1155/2020/5195104
- Himawan, & Vitianingsih, A. V. (2023). Regional development planning strategy through the digital village program to realize the welfare of rural communities. *Indonesian Journal of Applied and Industrial Sciences (ESA)*, 2(1), 45–58. https://doi.org/10.55927/esa.vzii.2683
- Hibbard, M., & Lurie, S. (2023). If your rural community is failing, just leave? The revival of place prosperity in rural development planning. *Journal of Planning Education and Research*, 43(4), 773-782. https://doi.org/10.1177/0739456X19895319
- INE (2022). Bolivia: población estimada y proyectada por departamento, según años calendario, 2012 -2025. Instituto Nacional de Estadística, La Paz, Bolivia.
- Jomehpour, M. (2017). Identifying strategic priorities for the sustainable development of rural areas based on local community planning. *Journal of Sustainable Rural Development*, 1(2), 161–170. https://doi.org/10.29252/jsrd.01.02.161
- Kalogiannidis, S., Papadopoulou, C. I., Loizou, E., & Chatzitheodoridis, F. (2023). Risk, Vulnerability, and Resilience in Agriculture and Their Impact on Sustainable Rural Economy Development: A Case Study of Greece. *Agriculture*, 13(6), 1222. https://doi.org/10.3390/agriculture13061222
- Kapsalis, T. A. (2023). Sustainable rural community development experiences and lessons. *Journal of biomedical research & environmental sciences*, 4(5), 891–895. https://doi.org/10.37871/jbres1750
- Kent, R. B., Guardia, E., & Sibille, O. K. (2018). *Decentralization, Popular Participation, and Changing Patterns of Urban and Regional Development in Bolivia*. Regional Development and Planning for the 21st Century: New priorities, new philosophies, Routledge.
- Labbé, J., Dewey, C. E., Weber, L. J., McIntyre, J., Hoekstra, K., & Klapwyk, C. (2015). Strategic planning through a participatory learning and action framework: a Kenyan study. *Development in Practice*, 25(2), 277–287. https://doi.org/10.1080/09614524.2015.1000828
- Lengerer, F., Steinführer, A., & Haartsen, T. (2022). To participate, or not to participate–That is the question. (Non-) participation of older residents in rural communities. *Journal of Rural Studies*, 91, 47-57. https://doi.org/10.1016/j.jrurstud.2022.02.008
- Lowery, B., Dagevos, J., Chuenpagdee, R., & Vodden, K. (2020). Storytelling for sustainable development in rural communities: An alternative approach. *Sustainable Development*, 28(6), 1813-1826. https://doi.org/10.1002/sd.2124
- Lucian, P. (2018). Durable rural development through the 2014-2020 national rural development Program. *Studies in Business and Economics*, 13(2), 147-152. https://doi.org/10.2478/sbe-2018-0026
- Manggat, I., Zain, R., & Jamaluddin, Z. (2018). The impact of infrastructure development on rural communities: A literature review. *International Journal of Academic Research in Business and Social Sciences*, 8(1), 637-648. https://doi.org/10.6007/IJARBSS/v8-i1/3837
- McNamee, T. C., & Van Horn, A. D. (2023). Faculty Development at Community Colleges in US Rural Contexts. *Journal of Education Human Resources*, 42(1), 67-87. https://doi.org/10.3138/jehr-2023-0051
- Muhtar, E. A., Abdillah, A., Widianingsih, I., & Adikancana, Q. M. (2023). Smart villages, rural development and community vulnerability in Indonesia: A bibliometric analysis. *Cogent Social Sciences*, 9(1). https://doi.org/10.1080/23311886.2023.2219118
- Muhumuza, C., Sileo, K. M., Wanyenze, R. K., Kershaw, T. S., Lule, H., Sekamatte, S., & Kiene, S. M. (2023). Development of a multi-level family planning intervention for couples in rural Uganda: key findings & adaptations made from community engaged research methods. *BMC Women's Health*, 23(1), 545. https://doi.org/10.1186/s12905-023-02667-8
- Mustanir, A., Yusuf, M., & Sellang, K. (2022). What determines the implementation of development planning deliberations in The Village? *IOP conference series. Earth and environmental science*, 1105(1), 012029. https://doi.org/10.1088/1755-1315/1105/1/012029

- Musekiwa, N., & Mandiyanike, D. (2017). Botswana development vision and localisation of UN Sustainable Development Goals. *Commonwealth Journal of Local Governance*, 135-145. https://doi.org/10.5130/cjlg.voi20.6469
- Natarajan, L. (2019). *Planning for rural communities and major renewable energy infrastructure*. En The Routledge Companion to Rural Planning (pp. 548–556). Routledge.
- Nawawi, M., Ali, A., Irawan, B., Ahmad, B., Mukramin, S. U., Marsuki, N. R. & Kaya, I. R. G. (2020). The village kalesang program as a poverty alleviation community. *International Journal of Scientific and Technology Research*, 9(3), 3103-3107. Research 9(03):3103-3107
- Nelson-Nuñez, J., & Cartwright, K. (2018). Getting along or going alone: understanding collaboration between local governments and NGOs in Bolivia. *Latin American Politics and Society*, 60(1), 76-101. https://doi.org/10.1017/lap.2017.7
- Nijenhuis, G. (2002). Decentralisation and popular participation in Bolivia, The link between local governance and local development, Edit. Faculteit Ruimtelijke Wetenschappen Universiteit Utrecht. Países Bajos.
- Papageorgiou, K., Singh, P. K., Papageorgiou, E., Chudasama, H., Bochtis, D., & Stamoulis, G. (2019). Fuzzy cognitive map-based sustainable socio-economic development planning for rural communities. Sustainability, 12(1), 305. https://doi.org/10.3390/su12010305
- Pape, I. S. R. (2008). "This Is Not a Meeting for Women" The Sociocultural Dynamics of Rural Women's Political Participation in the Bolivian Andes. *Latin American Perspectives*, 35(6), 41-62. https://doi.org/10.1177/0094582X08325949
- Paul, L. (2020). Rural Development in Romania–A Few Considerations. *Studies in Business and Economics*, 15(2), 165-174. https://doi.org/10.2478/sbe-2020-0032
- Petrov, K. (2021). The Regional Development of the Rural Areas in Bulgaria and the Support of the European Union. *European Countryside*, 13(1), 208-221. https://doi.org/10.2478/euco-2021-0012
- Prayudha, A. B., Kolopaking, L. M., & Sjaf, S. (2022). Farmer community participation in village building planning in Cikarawang Village, Bogor Regency. *Jurnal Sosiologi Dialektika*, 17(2), 183–194. https://doi.org/10.2047 3/jsd.v17i2.2022.183-194
- Quispe Fernandez, G.; Ayaviri, D. & Maldonado, R. (2018). Participación de los actores en el desarrollo local en entornos rurales. *Revista de Ciencias Sociales*, 24(3), 62-82.
- Rafi, M., Wicaksono, B., & Ishak, M. (2017). Deliberation in Planning Development in the Village of Renak Dungun Subdistrict Pulau Merbau Regency Kepulauan Meranti Year 2014-2015. Proceedings of the International Conference on Democracy, Accountability and Governance (ICODAG 2017).
- Ramaano, A. I. (2023). Geographical information systems in sustainable rural tourism and local community empowerment: A natural resources management appraisal for Musina Municipality'Society. *Local Development & Society*, 4(1), 74-105. https://doi.org/10.1080/26883597.2021.2011610
- Rotz, S., Gravely, E., Mosby, I., Duncan, E., Finnis, E., Horgan, M., & Fraser, E. (2019). Automated pastures and the digital divide: How agricultural technologies are shaping labour and rural communities. *Journal of Rural Studies*, 68, 112-122. https://doi.org/10.1016/j.jrurstud.2019.01.023
- Sanders, C. E., Lamm, A. J., & Borron, A. (2023). Exploring identity-oriented evaluation for rural community development: A constructivist grounded theory approach. *Community Development*, 54(2), 206-227. https://doi.org/10.1080/15575330.2022.2120510
- Sisto, R., Fernández-Portillo, L. A., Yazdani, M., Estepa-Mohedano, L., & Torkayesh, A. E. (2022). Strategic planning of rural areas: Integrating participatory backcasting and multiple criteria decision analysis tools. Socio-Economic Planning Sciences, 82(101248), 101248. https://doi.org/10.1016/j.seps.2022.101248
- Setokoe, T. J., & Ramukumba, T. (2020). Challenges of community participation in community-based tourism in rural areas. WIT Transactions on Ecology and the Environment, 248, 13-22. https://doi.org/10.2495/ST200021
- Stan, M.-I., & Cortel, E.-M. (2022). Sustainable rural development: an assessment of citizens' perception regarding the role of the planning framework within the Romanian local communities. *Technium Social Sciences Journal*, 35, 1–17. https://doi.org/10.47577/tssj.v35i1.7351
- Sutiyo, & Maharjan, K. L. (2017). *Community Participation in Rural Development*. En Decentralization and Rural Development in Indonesia, (pp. 125–138). Springer Singapore.
- Syam, R., Ras, A., Raf, N., Rahim, H., & Suparman, M. D. A. (2022). The role of village institutions in participatory development planning. *International Journal of Qualitative Research*, 1(3), 201–210. https://doi.org/10.47540/ijqr.v1i3.440
- Syafila Kamarudin, S. Z. O., Bolong, J., Osman, M. N., & Mahamed, M. (2019). ICT development of community in rural areas. *International Journal of Academic Research in Business and Social Sciences*, 9(9). https://doi.org/10.6007/IJARBSS/v9-i9/6273

- Szetey, K., Moallemi, E. A., Ashton, E., Butcher, M., Sprunt, B., & Bryan, B. A. (2021). Participatory planning for local sustainability guided by the Sustainable Development Goals. *Ecology and Society*, 26(3). https://doi.org/10.5751/es-12566-260316
- Tan, H., & Zhou, G. (2022). Gentrifying rural community development: A case study of Bama Panyang River Basin in Guangxi, China. *Journal of Geographical Sciences*, 32(7), 1321-1342. https://doi.org/10.1007/s11442-022-1999-0
- Tockman, J. (2016). Decentralisation, socio-territoriality and the exercise of indigenous self-governance in Bolivia. *Third World Quarterly*, 37(1), 153-171. https://doi.org/10.1080/01436597.2015.1089163
- Tshikovhi, N., More, K., & Cele, Z. (2023). Driving Sustainable Growth for Small and Medium Enterprises in Emerging Urban–Rural Economies. *Sustainability*, 15(21), 15337. https://doi.org/10.3390/su152115337
- Ugwoke, B., Sulemanu, S., Corgnati, S. P., Leone, P., & Pearce, J. M. (2021). Demonstration of the integrated rural energy planning framework for sustainable energy development in low-income countries: Case studies of rural communities in Nigeria. *Renewable and Sustainable Energy Reviews*, 144(110983), 110983. https://doi.org/10.1016/j.rser.2021.110983
- Ukhalina, O. V., & Rosinformagrotekh. (2023). Prospects for the strategic development of rural areas. *Machinery and Equipment for Rural Area*, 4, 43–48. https://doi.org/10.33267/2072-9642-2023-4-43-48
- Vázquez-Maguirre, M. (2020). Building sustainable rural communities through indigenous social enterprises: A humanistic approach. Sustainability, 12(22), 9643. https://doi.org/10.3390/su12229643
- Villalobos, Q., & Ebert, M. (2019). The popular participation and strong presidentialism in the New Latin American Constitutionalism. *Revista Derecho del Estado*, (44), 99-131. http://orcid.org/0000-0003-4504-9396
- Winter, J. C., Darmstadt, G. L., & Davis, J. (2021). The role of piped water supplies in advancing health, economic development, and gender equality in rural communities. *Social Science & Medicine*, 270, 113599. https://doi.org/10.1016/j.socscimed.2020.113599
- Yan, J., Huang, Y., Tan, S., Lang, W., & Chen, T. (2023). Jointly creating sustainable rural communities through participatory planning: A case study of fengqing county, China. *Land*, 12(1), 187. https://doi.org/10.3390/land12010187
- Yudarwati, G. A., & Gregory, A. (2022). Improving government communication and empowering rural communities: Combining public relations and development communication approaches. *Public Relations Review*, 48(3), 102200. https://doi.org/10.1016/j.pubrev.2022.102200
- Zhong, Y. F., & Qi, H. (2013). Rural community planning research taking PingQuan County YangShuLing Town SanZuoDian community planning as an example. *Applied mechanics and materials*, 357–360, 1657–1662. https://doi.org/10.4028/www.scientific.net/amm.357-360.1657