

Research Article

Proposal of the Theory of Anti-Lethargy of Small Farmers Based on the Analysis of Sustainable Governance Peru 2022

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Abstract

This research aimed to examine the sustainable governance applicable to small organic agriculture in Peru by 2022. The qualitative methodology was employed in the case study, enabling the acquisition of concrete, contextual, and comprehensive knowledge regarding the environmental governance that Peru has been experiencing. The study subjects comprised 15 representatives of producer organizations from the coast, the Andes, and the Amazon, as well as 5 representatives of institutions associated with the agrarian and environmental governance of Peru. The semi-structured interview was conducted with them, complemented by a documentary analysis of the primary agricultural and environmental public policies. The results indicate an enormous gap in environmental governance between the three levels of government (national government, regional governments and municipalities) and between multisectors (the ministries dedicated to the themes are given: agrarian, environmental, social, and production) It has been concluded that there is no comprehensive vision for organic agriculture as an environmental sustainability strategy. The 'Theory of Anti-Lethargy of Small Farmers in the Face of Sustainable Governance' is proposed, which encompasses strategies to encourage agrarian participation, given that more than two million farmers are awaiting the government's intervention, i.e. citizens who have not comprehended the importance of being involved, active, and committed. This approach has the potential to generate economies of scale, enhance opportunities, and elevate living standards for the next generation.

Keywords

Governance, Sustainability, Associativity, Small Agriculture

1. Introduction

The United Nations-UN Organization [1] maintains that, in 2015, the countries that make up the United Nations presented the Sustainable Development Goals (SDGs) with the purpose of eradicating poverty, caring for the planet, and improving quality of life of the world population. The research topic is addressed through environmental governance, agrarian eco-

nomic sustainability, farming families, and organic agriculture, among the 17 SDGs presented. Peru's vision is to generate sustainable development and democratic governance by implementing policies outlined in the National Agreement [2] demonstrating its clear commitment to reducing poverty, environmental pollution, and inter-institutional coordination

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(Policies 19 and 23). In order to understand the research topic, it observed the experience in the 1970s, when a trend of environmentally friendly food consumption started in Europe. For its part, in the 90s, Latin America chose to produce crops that contribute to the conservation of the environment, generating the organic market, which is growing progressively in North America, Europe and Asia. Since 2000, organic farming has been promoted in Peru as an activity that helps conserve biodiversity, reduce poverty, and hunger in rural areas.

In rural Latin America, there are 59 million people who are poor (48.0%) and 27 million people who are extremely poor (22.5%), as reported by The Food and Agriculture Organization of the United Nations- FAO [3]. According to FAO [3] rural poverty is a consequence of political instability, discrimination, corruption, non-inclusive economic policies, and natural disasters. FAO [4] suggests that organic production can enhance farmers' income and environmental sustainability. FAO [4] reports that organic agriculture covers 50.9 million hectares worldwide, with only 2.4 million certified producers (0.1%). The National Agrarian Health Service of Peru – SENASA [5] states that in Peru there are more than 460 thousand hectares of organic production, conducted by 87,838 associated farmers (out of 2.5 million) in various associative models (cooperatives, associations, etc.); That is, only 4% of farming families apply organic agriculture and only 30% (of 2.5 million farmers) are associated. SENASA [6] states that Peru has fallen in its global recognition, due to toxic residues found in organic agro-exports. Savage [7] maintained that in the United States, pesticide residues were found in approximately 5% of organic product samples. In view of what was presented, the general objective was proposed: to explain the scope of the environmental governance model applicable to the sustainability of families dedicated to small organic agriculture in Peru 2022. Regarding environmental regulations, the Ministry of Agrarian Development and Irrigation -MIDAGRI [8] presented the National Agrarian Policy 2021 - 2030 where it establishes the improvement of competitive agricultural development with the improvement of the value chain, the reduction of subsistence agriculture and improving the management of natural resources for sustainable agriculture. According to UN-Environment [9] state institutions must take a socioeconomic, historical, political, and economic approach to managing environmental problems. The Ministry of the Environment -MINAM [10] maintains that Peru has the National Environmental Policy (PNA) that constitutes the basis for its preservation and for the contribution of comprehensive, social, economic and cultural development.

According to the background, León [11] concludes that the participation of municipal management, the National Service of Protected Natural Areas - SERNANP and the territorial actors demonstrated good practice in environmental governance. However, the municipal management change resulted in a loss of this. Fortunately, local public policies encouraged continued efforts to protect the territory. Lanegra [12] observes that environmental governance in Peru is intricate at all

levels, with stakeholders at the national, regional, and local levels. He notes that various parts of the territory have experienced socio-environmental conflicts that illustrate weak institutions. Cassio and Sánchez [13] concluded that environmental governance involves taking actions to ensure the correct utilization of water resources in the investigated basin. Escobar [14] concluded the presence of a relationship between environmental governance and the comprehensive management of solid waste, so it is important that public entities in coordination with civil society actors build policies together for better environmental management and the resources that exist. Gallego [15] wrapped up his investigation into 'Development of an operational governance model' with a proposal that includes all the essential elements of operational governance. Andrade [16] described environmental governance as a set of processes in which individuals work together to create guidelines that enable the access, use, and distribution of natural resources.

The theory of governance has undergone changes in recent years, but the term governance itself is not new to mention. Biermann et al. [17] carried out an analysis of the evolution of the concept of environmental governance, mentioning that environmental public policies are not only the responsibility of the government, but involve broad participation of relevant actors: environmental experts, scientists, non-governmental organizations, companies, citizens and government entities; generating cooperation to implement mechanisms in favor of the environment. Brower [18] maintains that good governance is characterized by: prioritizing horizontal social attention, attention to conflicts, at the local level knowing the idiosyncratic characteristics of communities and attention to public norms to establish a balance between centralization and decentralization. On the other hand, Dalla-Torre [19] argued that governance is currently related to the field of contemporary international politics in which there is no State system where it solves problems between societies, groups, culture, etc. Knudsen and Moon [20] affirm that governance is related to the contemporary type of market economy, because governance is basically related to reducing interventions by State authorities on the activity, production and articulation of actors in the social field. The World Bank [21] defined governance as the process where public and private entities work together to design and implement policies. The UN Environment [8] asserted that environmental governance encompasses all policies necessary for sustainable and equitable development. The categories of environmental governance include multilevel governance and governance for territorial development. The Organization for Economic Cooperation and Development -OECD [22] mentions that governance requires transparency and participation of different actors in all political processes and in the preparation, decision, and implementation of public policies. The German Development Cooperation – GIZ [23] maintains that the multi-actor approach is participatory, inclusive, and intercultural processes, with impact on the social, environmental, economic, and

political spheres.

Coppock [24] affirms that governance is crucial for the development of economies. Regarding multilevel governance, Bodin [25] asserted that environmental governance necessitates the organizational segregation of new organizations in terms of the design and application of various norms and policies. Bennett and Satterfield [26] present it as a form of a new institutionality governed by a new public management (less bureaucracy and more market) that promotes the social construction of organized civil society. Chaffing and Gunderson [27] describe it as an attempt to balance planning and centralization, while Fletcher [28] describes it as creating a strategic path from the bottom up. Carlisle and Grubby [29] explore creating institutions that are well suited to the ecological and social context. Regarding territorial governance, the OECD [22] stated that new forms of governance must start from the local level, with the objective of sustained economic growth, based on the territorial approach and institutionality. Van et al. [30] present governance in a territorial scope is conceptualized as the ability of key actors to define consensual goals.

Similarly, regarding governance and economic growth, the World Bank [31] maintained that development in terms of economy is related to the increase in national income or GDP for each person in a locality in a given time. According to Sen [32], the primary factor influencing development is a democratic state and freedom, thereby establishing the poverty factor. This is not a factor that can be attributed solely to individuals or a generalized factor. Hence, Coppock [24] asserts that effective governance is imperative for the expansion of economies. Moyer and Bohl [33] argue that by modeling three alternative policy pathways (technology, lifestyle change, and decentralized governance), sustainable development can be achieved. Ocampo [34] argues that the economic growth process favors the use of land, with the physical location of the land being a crucial element, since people acquire the resources, they need to survive there. This has generated pressure on the earth due to the excessive activity of people attacking the environment. Vanhulst [35] (2019) said that sustainable development is a united procedure, where the use of goods and services, investment, technology, and modifications at the organizational level must be ensured in the economic, social, human, and environmental sphere. Moyer and Bohl [33] argue that by modeling three alternative policy pathways (technology, lifestyle change, and decentralized governance), sustainable development can be achieved. Ocampo [34] argues that the economic growth process favors the use of land, with the physical location of the land being a crucial element since people acquire the resources they need to survive there. This has generated pressure on the earth due to the excessive activity of people attacking the environment.

The Theory of Sustainable Development, UN [36] defined sustainable development as the procedure capable of meeting the needs of current society without harming future societies. That is why mentioned is made of the dimensions that associ-

ated an effective economy, social equality, and the preservation of the environment, or also called the tripod of sustainability. Thus, the concept of sustainable development is related to three dimensions: economic, ecological, and social, and establishes the results of the work to carry out a comprehensive perspective based on the difficulties that development occurs.

Furthermore, the theory of organic farming is presented, according to the FAO [37], organic farming is the process that employs natural substances and not chemical substances to cultivate the land or soil, as evidenced by the obtaining of certifications. The FAO [38] describes organic farming as a multifaceted approach to economic development, capable of advancing and enhancing the health of biodiversity. FAO [3] says that family farming creates jobs in agriculture and other areas, which helps rural economies grow. Therefore, family farming preserves biodiversity and the ecosystem.

In relation to agricultural associativity, FAO [39] posits that the organization of producers facilitates the enhancement of interrelationships with the market and public organizations, as well as the relationship with new shareholders and global markets, thereby enhancing the productivity and income of farmers. FAO [38] states that organic certification is the method used to verify whether the system actually adheres to the various quality and efficiency standards, which are determined by the country of importation. Shorrocks [40] demonstrates that organic farming promotes high-quality food and environmental stewardship with certain outcomes. Ruiz de Maya et al. [41] emphasized the necessity of establishing credibility in organic product markets. In the case of Peru, Maletta [42] says that small family farming is farming where farmers own land and produce for a market that allows them to make money. This also includes technological changes in inputs, tools, and others that help you improve your productivity levels.

2. Materials and Methods

The present investigation was conducted using a qualitative methodology, as outlined by Blasco and Pérez [43]. This approach focuses on the authenticity of events in their natural context, resulting in phenomena that align with the individuals involved in the study. In that regard, this research was grounded on the authentic happenings in environmental governance to ensure the sustainability of organic agriculture. The research design was the case study. Yin [44] demonstrates that this approach aids in comprehending a specific event. To do this, we made categories and subcategories for the research. We used a semi-structured interview with 10 leaders (presidents and/or managers) of organic farming groups in Peru and 5 representatives of organizations that are connected to organic farming.

This interview allowed information to be collected to analyze the agricultural and environmental policies that contribute to environmental sustainability. The analysis focused on the category of sustainable development and its subcategories of economic, social, environmental, and political-institutional

dimensions. The next step was to collect information to analyze current environmental actions to ensure economic sustainability. Thus, the collection of information focused on the category of organic agriculture, with subcategories on organic agriculture, associativity, organic certification and organic marketing. The third part of the interview gathers information to study how different groups, both public and private, talk about keeping the environment healthy for everyone. Hence, the participants in the study expressed their perspectives on the domain of environmental governance, thereby enabling them to perceive the synergies among the three levels of government, operators, and producer organizations in the pursuit of social sustainability. Furthermore, the agricultural and environmental public policies issued by the Peruvian government were analyzed.

3. Results and Discussion

The achievements of organic farming are attributed to the

efforts of agricultural associations, as evidenced by the figures reported by SENASA. Even though there is a wealth of public policies around organic agriculture worldwide and in Peru. The investigation shows that there is little environmental oversight for organic farming in Peru, as there is no consistency between the public policies established at the central level and the actions taken at the regional and local levels. Because public policies are generated by the central government, there are no public policies for organic or ecological agriculture that explicitly mention inclusion, participation, and the conservation and restoration of biodiversity, among other approaches to sustainability. From the viewpoint of producer organizations, it appears that they are not considered in the formulation of public policies. Therefore, they express their disapproval of the inspection and surveillance role of SENASA against the indiscriminate use of agrochemicals, which has been affecting organic farmers due to cross-contamination.

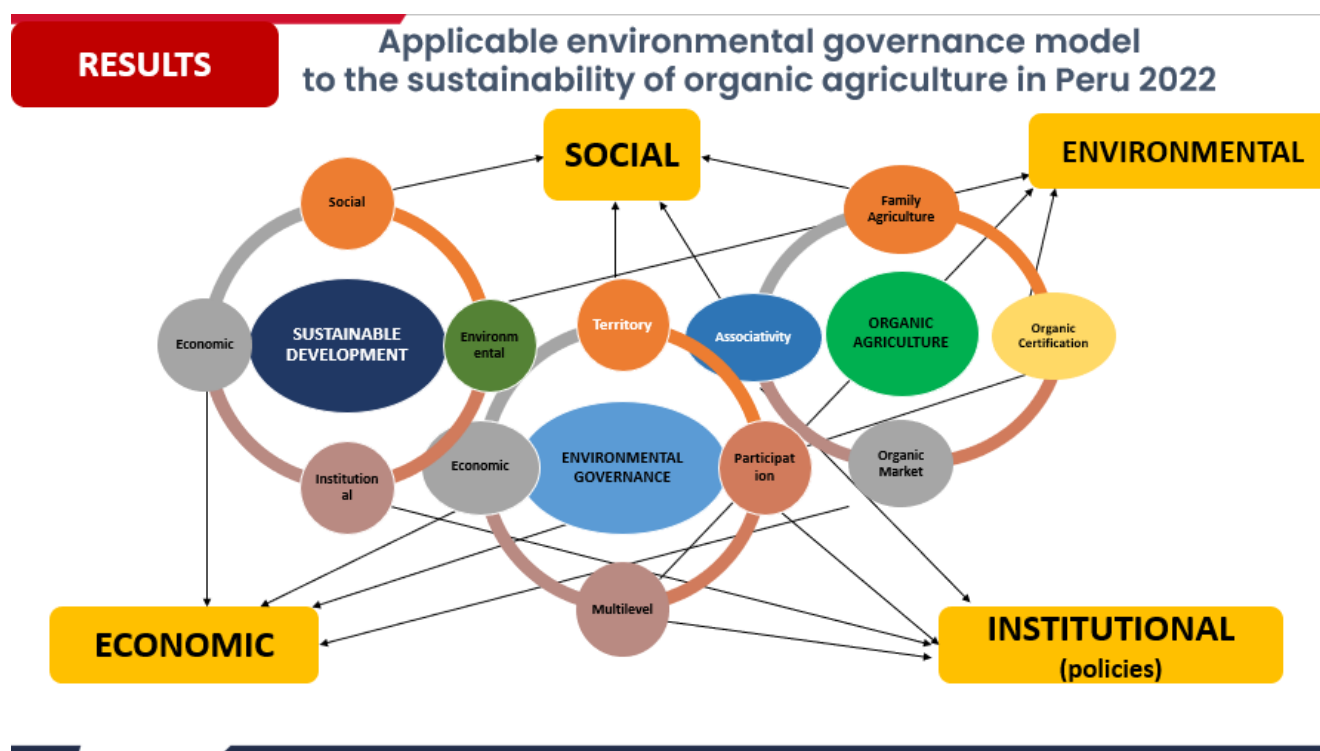


Figure 1. Interrelation between the categories and subcategories of the research.

Figure 1 depicts the ideal alignment that ought to exist between the Peru Vision 2050, the guidelines of the agrarian policy, the environmental policy, and other policies pertaining to organic agriculture. However, all empirical and documentary findings indicate that there is an enormous governance gap between the three levels of government and between multisectors. It is noteworthy that the Ministry of Social Inclusion fails to highlight the significant role of farming families in the social and economic advancement of the re-

spective territories. On the contrary, a new Law 31335 was promulgated in August 2021 in favor of agricultural cooperatives, omitting any mention of organic agriculture, even though a significant number of agricultural cooperatives are devoted to this economic activity. Moreover, no sector has made organic agriculture a prominent component of the global effort to combat climate change, and the significant disparity between organic agriculture and the disastrous consequences of conventional agriculture on the economic

decline resulting from agricultural practices remains largely unobserved. That affects the environment. In the same way, regional and local governments continue to propose public

policies and short-term programs tailored to the duration of their government.

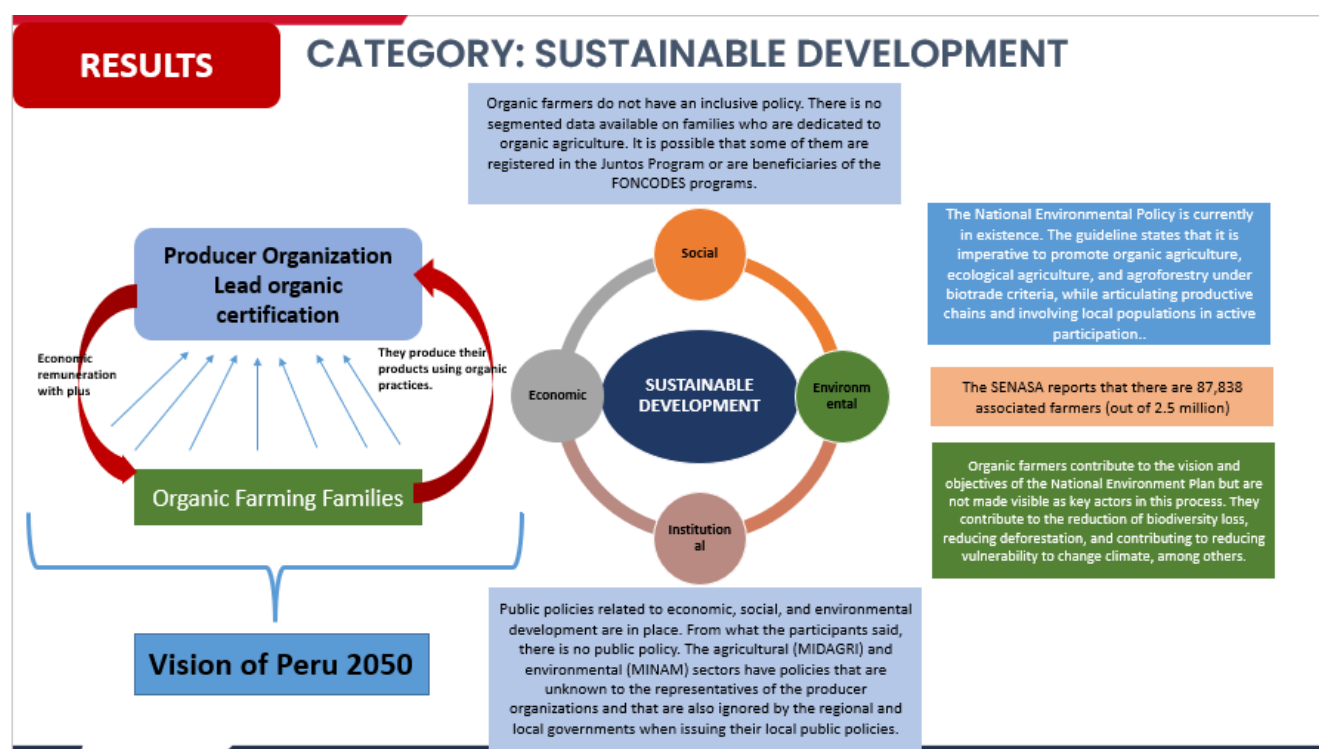


Figure 2. Sustainable Development Category.

Figure 2 illustrates the absence of a comprehensive policy for organic farmers, despite the existence of a National Environmental Policy that explicitly endorses the promotion of organic agriculture. Nevertheless, organic farmers are not prominently acknowledged as pivotal players in this process, thereby contributing to the reduction of biodiversity loss, reduction of deforestation, and resilience against climate change. I agree with Castro et al. [45] that environmental governance is a space for dialogue where the use of opportunities and attention to vulnerabilities are negotiated, under the interests of the actors who are capable of influencing decision-making. In this sequence of concepts, it is evident that a vision that incorporates a territorial focus and a multi-actor approach is lacking, as there is no segmented characterization of organic farmers. As a reference, the concept launched by the UN [36] states that sustainable development is a procedure to meet the needs of current society without harming future societies. It is based on the principles of an effective economy, social equality, and the preservation of the environment, or the tripod of sustainability.

Although there are producer organizations with the best intentions to promote associativity and organic agriculture, it is not enough to ensure the sustainability of organic agriculture, as shown in Figure 3: the bottlenecks in family farming, organic certification, associativity, and organic trade. As

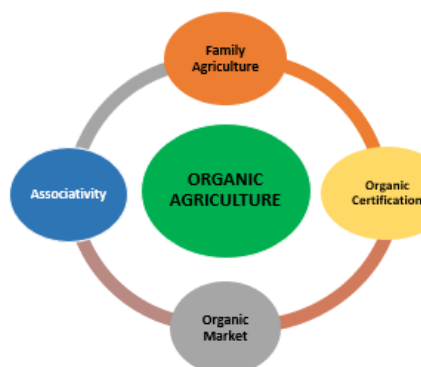
stated by FAO [37], in order to advance organic agriculture, a comprehensive vision is required at the local, regional, national, and international levels, comprehending that organic agriculture is a link between various environmental initiatives.

At the Multilevel Governance level, which is based on the three levels of government, it is evident that no support is received at the national level for organic agriculture. At the regional level, regional governments have programs aimed at enhancing agriculture; however, none of them are exclusively focused on organic agriculture, nor are they incorporated into local governments. There are numerous regulations pertaining to organic farming; however, their implementation is inadequate. These findings indicate that there is a division between the three levels of government in order to strengthen organic agriculture, although it is true that SENASA issues public policies and producer organizations are the ones who know the most about organic agriculture. Nonetheless, the regional and local authorities are uncertain about the matter, and they are not actively advocating it through their productive initiatives. Many regional governments do not even have productive projects or established regional programs. It is the producer organizations that make efforts to position the country as an organic producer in the positions achieved worldwide.

RESULTS**CATEGORY: ORGANIC AGRICULTURE**

- The predominant associative model is comprised of agricultural cooperatives and producer associations.
- Since 2021, Law No. 31335, titled "Improving the association of agricultural producers in agricultural cooperatives," does not contain any chapter referring to organic production.

- Law No. 30355, which helps small farmers in their area, helps them improve their farming practices. It doesn't say anything special for family farmers who farm organically.
- Technical packages are not unified by crop.
- The SIC checks if organic production is done correctly.
- SENASA does not perform an efficient verification of compliance with the inputs allowed for organic production.
- Law for the Promotion of Organic or Ecological Production does not allow the use of synthetic agrochemicals.
- The production costs of organic agriculture are higher.



In order to transition from conventional to organic agriculture, it takes three years. The certification process is managed by producer organizations. Some farmers don't follow the rules because they use prohibited chemicals or get cross-contaminated. SENASA maintains that it intensifies oversight audits each and every day.

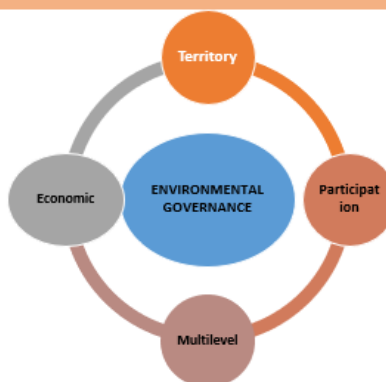
Peru is very well-known in the world market. SENASA made a system called Participatory Guarantee that helps organic farmers sell their products in the country. Several coffee or cocoa lots contaminated with glyphosate have been rejected. Organic producers receive a reward for their products.

Figure 3. Organic Agriculture Category.

RESULTS**CATEGORY: ENVIRONMENTAL GOVERNANCE**

Vision Peru 2050 supports the reduction of gaps in the fight against poverty, but the great gap between associated, non-associated farmers and organic farmers and conventional farmers, who generate great environmental pollution, is not visualized. There are no specific poverty reduction policies for organic farmers. Producer organizations that are unable to obtain organic certification due to lack of financial resources. The process of accessing credit for farmers is excessively cumbersome, and the interest rates are high.

There is currently no established Territorial Development Strategy. Producer organizations don't have a set scope, like ACOPAGRO does. The concept of clean territories has not been established to safeguard them from cross-contamination. The installation of new organic crops is promoted without territorial planning.



There are three unions that represent producer organizations and organic farmers: the JNC, JNB, and APPCACAQ. Organic farmers are not recognized or identified because regional and local policies are mainly aimed at non-productive infrastructure. The absence of effective leadership within producer organizations results in a lack of comprehension of the current regulations that are crucial for their survival. In reality, the absence of the modest agriculture sector is evident, hence the need for support lines in local and regional governments. They are producer organizations that make individual efforts to ensure that their members comply with organic agriculture regulations.

The national government has a series of public policies aimed at organic agriculture, which are issued by MIDAGRI and MINAM.

Regional and local governments each implement ordinances, projects, and programs. Both organic agriculture and environmental policies are not aligned with Peru's Vision 2050.

Figure 4. Environmental Governance Category.

Each level of government issues plans to promote agrarian development, but not exclusively that farmers are promoted and encouraged to develop organic agriculture. This is why farmers use agrochemicals indiscriminately without any

intervention from SENASA or another entity of the regional or local authority, such as the Environmental Authority. In June 2021, the Executive Branch of Peru approved the National Concerted Plan for the Promotion and Promotion of

Organic or Ecological Production - PLANAE 2021-2030. This plan aims to promote agroecological production as a sustainable agricultural production system, which encompasses ecological or organic production. Its primary objective is to generate employment and profitability, with a priority given to family farming. Its primary objective is to mitigate and adapt to the adverse effects of climate change. When compared to the assertion made by the OECD [22], it is argued that effective governance necessitates the transparency and involvement of diverse actors in all political processes, including the formulation, determination, and execution of public policies. According to Fernández-Martínez and Font (2018), the absence of a comprehensive regulatory and oversight system for policies is the root cause of disparities and a lack of transparency.

Hence, despite the approval of the National Concerted Plan for the Promotion and Promotion of Organic or Ecological Production - PLANAE 2021-2030 at the national level, it is currently considered an unknown document in the regions and at the local level, according to the individuals interviewed. Since there is no agreement at the three levels of government, the gap between conventional farmers and organic farmers is so great because there is a lack of knowledge of what organic agriculture entails and as the OECD [22] states, it is necessary that public policies be formulated in a participatory manner so that everyone knows what normative or visionary documents exist and as Tallberg et al. [45] maintains it is important that policies eliminate inequalities, Fernández-Martínez and Font [46] that transparency is generated in the processes and Zürn [47] adds that only in this way can governance be established, generating ties between the three levels of government and the population.

It appears that each level of government has been making individualistic efforts to generate development, but none is oriented towards a single vision. The positioning of organic agriculture among farmers is distorted, and its fulfillment is incomplete. Farmers receive different training and technical assistance messages, causing confusion or ignorance of the technological packages or accepted products or inputs, or ignorance of the standards required by organic markets. As Spalding [48] posits, a consensus must be established at the organizational level, where private corporations are obligated to implement their actions at the government level. Hence, the producers organizations are those who bear this significant responsibility, as they are tasked with managing the sporadic interventions of regional and local authorities.

In relation to the governance of territorial development, it has been observed that local governments operate within their respective jurisdictions, however, they lack a comprehensive map of the areas that produce organic agriculture and conventional agriculture, as these areas are polluting and can lead to cross contamination. Both traditional products, such as cocoa, coffee, bananas, etc., have been mapped by SENASA, as have new products, such as blueberries, ginger, and avocado. In accordance with the statement made by the OECD

[22], it has been stated that novel forms of governance must commence at the local level, with the aim of sustaining economic growth, based on a territorial approach and institutional framework. Van et al. [29] define governance at a territorial level as the ability of key actors to define agreed-upon goals.

In regard to the economic corridors of organic agriculture, it has been discovered that they are defined by the production areas of agricultural cooperatives and producer associations. According to Schultz et al. [49], the importance of governance, which is based on the territorial union, is demonstrated by the provision of State services to the populations within its territorial boundaries. Additionally, the importance of planning spatial expansion is underscored by its ability to facilitate and justify growth in the future. In that regard, despite the existence of regions that are designated by producer organizations for organic production, conventional agriculture still exists within them.

In relation to governance and public participation, it was found that producer organizations are almost always separated from political decisions and public policy proposals for organic agriculture. The presence of leaders of producer organizations is almost non-existent, and the absence of the small agriculture sector is noticeable. Therefore, the lines of support in local and regional governments are not clear. At present, there is no active participation, as only communications are received from the Association of Small Cocoa Producers-APPCACAO, the National Coffee Board, or the National Banana Board. This communication focuses on some incidents before the government, but none of them are exclusively related to the promotion of organic agriculture or the fight against the irrational use of agrochemicals. The voice of organic farmers is absent from public policies on organic agriculture. In accordance with the assertion made by FAO [45], producer organizations highlight the challenges that typically arise in the domain of family farming.

The participants said that they don't see any public policy that would help reduce rural poverty or increase the economic growth of organic agriculture areas. The participants expressed their lack of vision for a public policy regarding agriculture areas, indicating that the Guidelines of the Agrarian Policy of Peru and the Vision of Peru to 2050 are imperative in addressing the gap between conventional agriculture, which is currently causing environmental degradation (including water, soil, and forest resources), and organic agriculture, which represents less than 1% of the total agricultural production, which is contributing to the preservation of the environment. Moreover, the majority of producer organizations do not have financing, and those who have achieved it are due to the presence of international cooperation programs that have donated this requirement. Furthermore, farmers face challenges in accessing credit due to high-interest rates and their disrepute within the financial system. According to Coppock [24], economic growth is linked to poverty reduction. Furthermore, governance is imperative for the growth of economies. According to Guerry et al. [50], one of the ways to

achieve this is through technical development, investment, and the accumulation of tangible and human capital, as well as relationships with international markets. However, without comprehensive policies, it will be difficult for organic farmers and their producer organizations to contribute to the long-awaited Sustainable Development Goals and Peru Vision 2050.

This research indicates that there exists a significant divergence between national and regional public policies regarding the sustainability of small organic agriculture. This is because the majority of the existing public policies have been formulated from a sectoral perspective without considering the diverse territorial realities. Consequently, the current public policies do not contribute to reducing the significant disparity between organic agriculture (90 thousand farmers) and conventional agriculture (2.5 million farmers), of which 30% are organized and committed to environmental issues, the green economy, and sustainable development.

Based on the findings, a "Theory of Anti-Lethargy of Small

Farmers in the Face of Sustainable Governance" has been proposed, which encompasses strategies to encourage agricultural participation, given that more than 2 million farmers are awaiting the government's intervention. Citizens who have not understood that they should be associated, active, and committed. This approach can generate economies of scale, better opportunities, and raise living standards for new generations.

This theory is founded on the following theories: Skinner's reinforcement theory, Edward Freeman's stakeholder theory, the multi-actor approach (spaces of participation in the territory), the territorial approach, Putnam's theory of social capital, and Moore's theory of public value. The formulation of public policies must be guided by the needs of the population, expressed through their grassroots civil society organizations. Hence, it is imperative that public policies emanate from farmers, as they possess the right to present their proposal, regardless of whether it is accepted by the organizations. If they are associated farmers, one approach to propose public policies is through their producer organization.

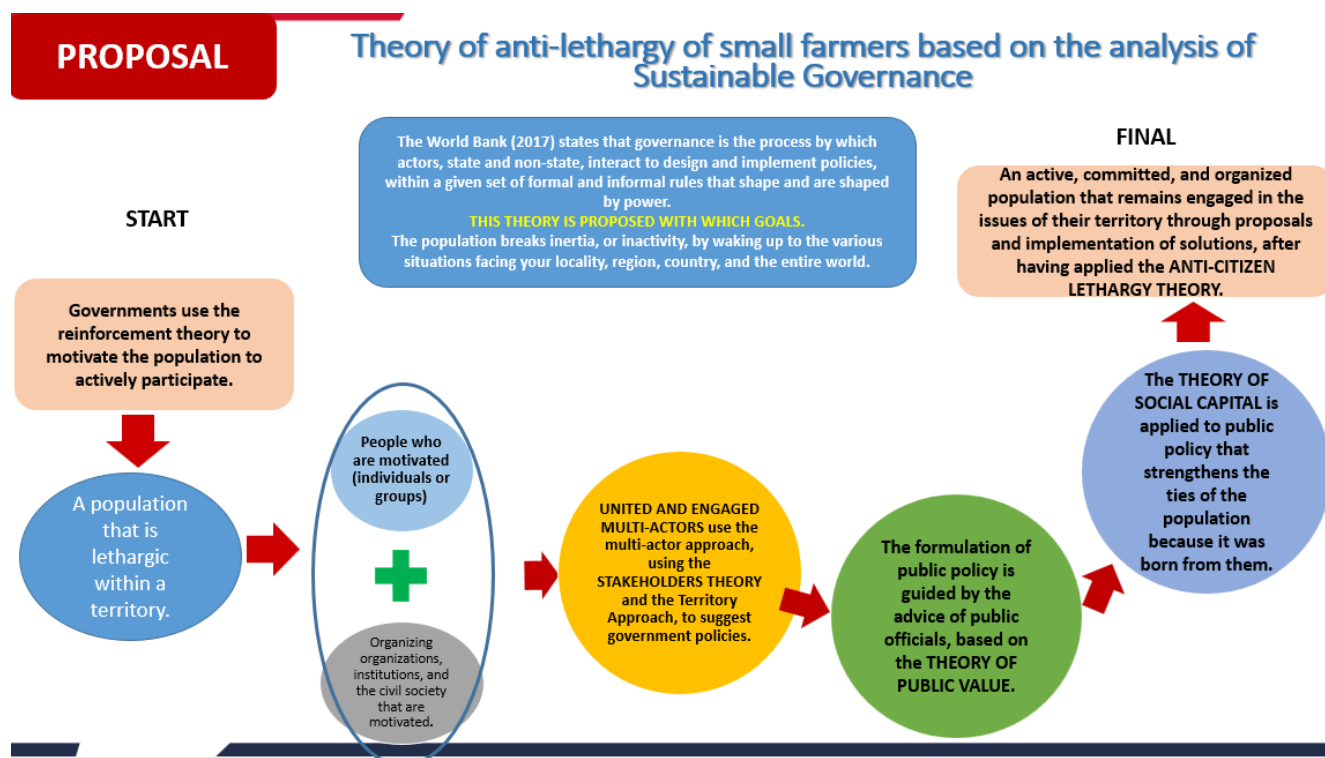


Figure 5. Proposal "Motivate the participation of families dedicated to small agriculture in improving sustainable governance".

Explanatory summary of the proposed application

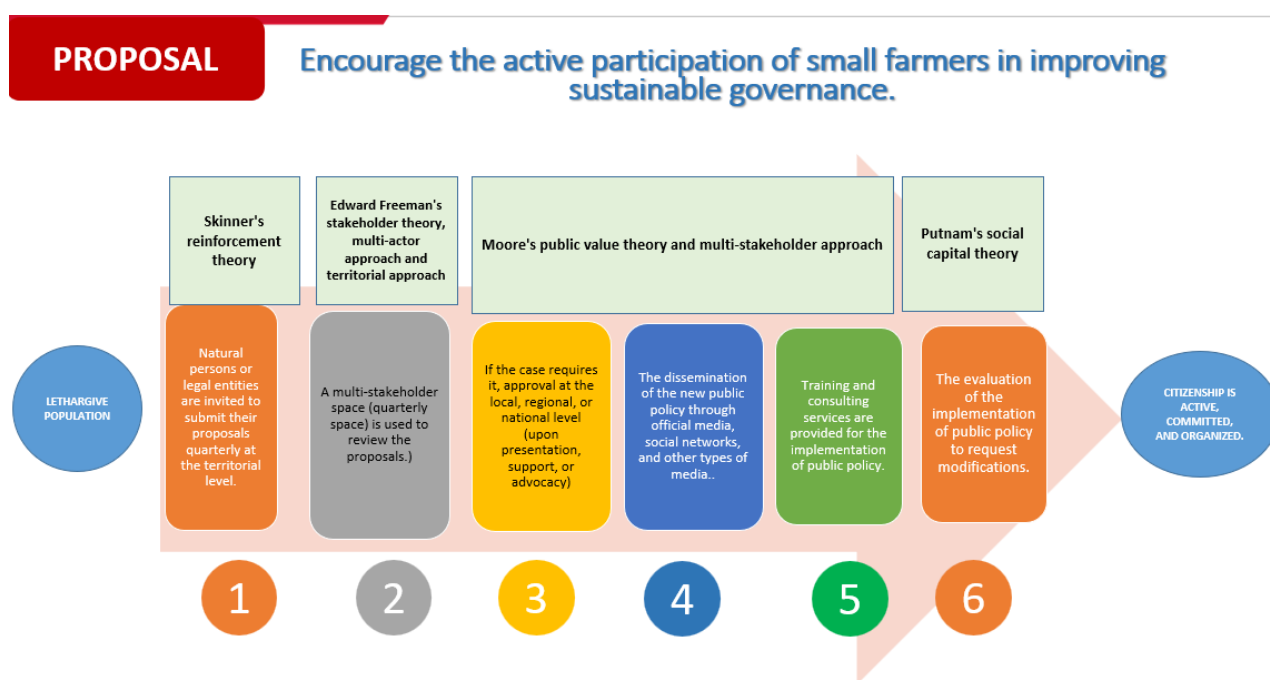


Figure 6. Steps of the proposal: From lethargic small farmers to active, committed and organized farmers.

4. Conclusions

According to empirical and documentary findings, there is an enormous gap in environmental governance at the three levels of government and among multi-sectors, which do not make visible families dedicated to organic agriculture as key actors in sustainable development. The existence of public policies for organic farmers is unknown, although there are public policies issued by the Ministry of Agrarian Development and Irrigation and the Ministry of Environment. Fewer than 90 thousand organic farmers apply technological packages to their farms, taking care to comply with the Organic Production Regulations issued by SENASA. Lastly, the lack of governance between the three levels of government makes the gap between conventional farmers and organic farmers so great.

Abbreviations

UN: United Nations

FAO: Food and Agriculture Organization of the United Nations

SENASA: Servicio Nacional de Sanidad Agraria. The National Agrarian Health Service of Peru

MIDAGRI: Ministerio de Desarrollo Agrario y Riego. Ministry of Agrarian Development and Irrigation

OECD: Organization for Economic Cooperation and Development

GIZ: German Development Cooperation

Conflicts of Interest

The author declares no conflicts of interest.

References

- [1] United Nations (2019). Informe de los Objetivos de Desarrollo Sostenible. Organización de las Naciones Unidas. https://unstats.un.org/sdgs/report/2019/The-Sustainable-Development-Goals-Report-2019_Spanish.pdf
- [2] Acuerdo Nacional (2002). Políticas de Estado del Acuerdo Nacional. <https://www.acuerdonacional.pe/politicas-de-estado-del-acuerdo-nacional/politicas-de-estado%E2%80%8B/politicas-de-estado-castellano/iii-competitividad-del-pais/19-desarrollo-sostenible-y-gestion-ambiental/>
- [3] Food and Agriculture Organization of the United Nations (2019). United Nations Decade of Family Farming 2019-2028. Global Action Plan. 78 pp. Obtenido de <http://www.fao.org/3/ca4672en/ca4672en.pdf>
- [4] Food and Agriculture Organization of the United Nations (2018). 17 Goals to Transform Our World. FAO. <https://www.un.org/sustainabledevelopment/es/development-agenda/>
- [5] Servicio Nacional de Sanidad Agraria (2021). Producción Orgánica en Perú. Servicio Nacional de Sanidad Agraria. <https://www.senasa.gob.pe/senasacontigo/con-mas-de-460-mil-hectareas-certificadas-peru-crece-en-produccion-organica/>

- [6] Servicio Nacional de Sanidad Agraria (2020). Informe Anual. Lima, Peru: SENASA. <https://www.senasa.gob.pe/senasa/>
- [7] Savage, S. (2018). The Truth About Pesticide Residues On Produce: All Encouraging, Some Inconvenient. Forbes (Abril 2018). <https://bit.ly/2MixCHO>
- [8] MIDAGRI (2021). Política Nacional Agraria 2021- 2030. Ministerio de Desarrollo Agrario y Riego. <https://busquedas.elperuano.pe/normaslegales/decreto-supremo-que-aprueba-la-politica-nacional-agraria-202-decreto-supremo-no-017-2021-midagri-1975873-14/>
- [9] United Nations - Environment (2018). Gobernanza Ambiental y la Agenda 2030. Avances y buenas prácticas en América Latina y el Caribe. 47 pp. https://wedocs.unep.org/bitstream/handle/20.500.11822/26756/Gobernanza_Ambiental_ALC.pdf?sequence=1&isAllowed=y
- [10] Ministerio del Ambiente (2018). Política Nacional del Ambiente. Ministerio de Ambiente. MINAM. <https://www.gob.pe/institucion/minam/campa%C3%B1as/2041-politica-nacional-del-ambiente>
- [11] León, G. (2020). Gobernanza ambiental y conservación: las gestiones del SERNANP y PROHILLA en el Refugio de Vida Silvestre Los Pantanos de Villa. Revista Argumentos, 1(1), 119-124. <https://revistaargumentos.iep.org.pe/index.php/arg/article/view/20>
- [12] Lanegra (2020). El camino ambiental hacia la OCDE El Perú y la implementación de las recomendaciones en materia ambiental. Grupo de Justicia Fiscal. <http://cooperaccion.org.pe/wp-content/uploads/2018/10/17070-El-camino-ambiental-hacia-la-OCDE-CORR-web.pdf>
- [13] Cassio, E., y Sánchez, E. (2018). Gobernanza ambiental para el desarrollo sostenible de la cuenca de Santiaguillo, Durango. Espiral Estudios Sobre Estado Y Sociedad (eISSN: 2594-021X), 25(72), 183-208. <https://doi.org/10.32870/espiral.v25i72.6038>
- [14] Escobar, C. (2017). La gobernanza ambiental y la gestión integral de residuos sólidos en el distrito de Comas año 2017 de la Universidad César Vallejo. [Tesis de Maestría]. Repositorio institucional de la Universidad César Vallejo. <https://repositorio.ucv.edu.pe/handle/20.500.12692/14557>
- [15] Gallego, C. O. (2016). Desarrollo de un modelo de gobernanza operativa de la estrategia (MGOE) para el consejo de administración: indicadores desde la perspectiva de la función de auditoría interna. <https://repositorio.comillas.edu/xmlui/handle/11531/9888>
- [16] Andrade (2015). El Gobierno de la Naturaleza. La gobernanza ambiental posneoliberal en Bolivia y Ecuador. Gobernanza Ambiental en América Latina. CLACSO; ENGOV. <http://biblioteca.clacso.edu.ar/clacso/se/20150318053457/GobernanzaAmbiental.pdf>
- [17] Biermann, F., Norichika, K., Rakhyun, E. (2017). Global governance by goal-setting: the novel approach of the UN Sustainable Development Goals, Current Opinion in Environmental Sustainability, Volumes 26–27. Pages 26-31. ISSN 1877-3435. <https://doi.org/10.1016/j.cosust.2017.01.010>. <https://www.sciencedirect.com/science/article/pii/S1877343517300209>
- [18] Brower, J. (2016). Around the sense of governability and governance: Definition and scope. Daimon, (67) 149-162.
- [19] Dalla-Torre, M. (2017). Territorial governance and the Territorial Planning Plans, Bitácora 27, 47-54, Universidad Nacional de Colombia, Bogotá
- [20] Knudsen, J. S., Moon, J. (2017). Visible hands: Government regulation and international business responsibility. Cambridge: Cambridge University Press. https://books.google.com.pe/books?hl=en&lr=&id=2ek4DwAAQBAJ&oi=fnd&pg=PR7&ots=8vysDs9lQ-&sig=w72AxdMc1lXk0mizwZAzZ-G9k0U&redir_esc=y#v=onepage&q&f=false
- [21] World Bank (2017). Improving Governance Is Key to Ensuring Equitable Growth in Developing Countries. <https://www.bancomundial.org/es/news/press-release/2017/01/30/improving-governance-is-key-to-ensuring-equitable-growth-in-developing-countries>
- [22] Organización para la Cooperación y el Desarrollo Económicos (2019). La Integridad Pública en América Latina y el Caribe 2018-2019. De Gobiernos Reactivos a Estados Proactivos. Organización para la Cooperación y el Desarrollo Económicos. 127pp. <https://www.oecd.org/gov/ethics/integridad-publica-america-latina-caribe-2018-2019.pdf>
- [23] Cooperación Alemana al Desarrollo (2012). Guía metodológica para diálogos multiactor en el contexto de actividades extractivas. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. https://prodialogo.org.pe/wp-content/uploads/2016/09/gm_dial_multi.pdf
- [24] Coppock, A. (2019). Generalizing from survey experiments conducted on Mechanical Turk: A replication approach. Political Science Research and Methods 7 (3): 613–628. <https://www.cambridge.org/core/journals/political-science-research-and-methods/article/generalizing-from-survey-experiments-conducted-on-mechanical-turk-a-replication-approach/7A0A1B2F63320A832C17CE1A8908F137>
- [25] Bodin, Ö. (2017). Collaborative environmental governance: Achieving collective action in social-ecological systems. Science, 357, eaan1114. <https://science.sciencemag.org/content/357/6352/eaan1114.abstract>
- [26] Bennett, N., and Satterfield, T. (2018). Environmental governance: a practical framework to guide design, evaluation, and analysis. Conservation Letters 11(6): e12600. <https://doi.org/10.1111/conl.12600>
- [27] Chaffin, B., and Gunderson, L. (2016). Emergence, institutionalization and renewal: rhythms of adaptive governance in complex social-ecological systems. Journal of Environmental Management 165: 81-87. <https://doi.org/10.1016/j.jenvman.2015.09.003>

- [28] Fletcher, R. (2017). Geoforum environmental unbound: multiple governmentalities in environmental politics. *Geoforum* 85: 311-315.
<https://doi.org/10.1016/j.geoforum.2017.06.009>
- [29] Carlisle, K., and Gruby, R. (2019). Polycentric systems of governance: a theoretical model for the commons. *Policy Studies Journal* 47(4): 927-952.
<https://doi.org/10.1111/psj.12212>
- [30] Van, K., Beunen, R., Duineveld, M., and Gruezmacher, M. (2017). Power/knowledge and natural resource management: Foucaultian foundations in the analysis of adaptive governance. *Journal of Environmental Policy and Planning* 19(3): 308-322.
<https://doi.org/10.1080/1523908X.2017.1338560>
- [31] World Bank (2020). Annual Report 2020. Supporting Countries in Unprecedented Times. World Bank.
<https://www.worldbank.org/en/about/annual-report>
- [32] Sen, A. (2019). Integral Human Development: A Characterisation from the Catholic Social Tradition and Amartya Sen's Capability Approach. *Revista de Estudios Sociales*, N° 67 (2019) 74-86.
<https://doi.org/10.7440/res67.2019.06>
- [33] Moyer, JD. and Bohl, D. (2019). Alternative pathways to human development: assessing trade-offs and synergies in achieving the Sustainable Development Goals. *Futures* 105: 199-210.
<https://www.sciencedirect.com/science/article/abs/pii/S0016328718302040>
- [34] Ocampo, J. A. (2019). Spotlight on Sustainable Development 2018 Exploring new policy pathways. How to overcome obstacles and contradictions in the implementation of the 2030 Agenda. 167 pp.
<https://www.2030spotlight.org/sites/default/files/spot2018/Spotlight Science, 357, eaan1114>.
<https://science.sciencemag.org/content/357/6352/eaan1114.abstract>
- [35] Vanhulst, J. (2019). Pensar la sustentabilidad desde América Latina. Retrospectiva del discurso académico a partir de un análisis bibliométrico entre 1970 y 2012. *Rev. Colomb. Soc.*, 42(1), 41-71.
<http://www.scielo.org.co/pdf/rcs/v42n1/0120-159X-rcs-42-01-41.pdf>
- [36] United Nations (2016). Perspectiva del medio ambiente. Organización de las Naciones Unidas. <https://www.un.org/es/>
- [37] Food and Agriculture Organization of the United Nations (2021). Agricultura orgánica. Organización de las Naciones Unidas para la Alimentación y agricultura.
<http://www.fao.org/3/ad818s/ad818s03.htm>
- [38] Food and Agriculture Organization of the United Nations (2017). Codex Alimentarius. FAO.
<http://www.fao.org/fao-who-codexalimentarius/es/>
- [39] Food and Agriculture Organization of the United Nations (2015). Marco Estratégico de Mediano Plazo de Cooperación de la FAO en Agricultura Familiar en América Latina y el Caribe. FAO para América Latina y el Caribe (ALC), 40 pp.
https://www.sudamericarural.org/images/en_papel/archivos/agri_fam_fao.pdf
- [40] Shorrocks, VM (2017). *Conventional and Organic Farming. A Comprehensive Review through the Lens of Agricultural Science*. Sheffield: 5M Publishing Ltd, 574 pp.
<https://onlinelibrary.wiley.com/doi/abs/10.1002/jpln.201870035>
- [41] Ruíz de Maya, S., López-López, I., and Munuera, J. (2017). The impact of congruence between the CSR activity and the company's core business on consumer response to CSR. *Eco-logical Economics*, 21(1), 26-38.
<https://dialnet.unirioja.es/servlet/articulo?codigo=6191022>
- [42] Maletta, H. (2017). La pequeña agricultura familiar en el Perú Una tipología microrregionalizada. En IV Censo Nacional Agropecuario 2012: Investigaciones para la toma de decisiones en políticas públicas. Libro V. Lima, FAO.
- [43] Blasco, J. y Pérez, J. (2007). *Metodologías de investigación en educación física y deporte: Ampliando horizontes*. Alicante, España. Editorial Club Universitario.
- [44] Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed., 1st ed., 1984; rev. ed., 1989). Thousand Oaks, CA: Sage Publications.
- [45] Castro, F., Hogenboom, B., & Baud, M. (2015). Gobernanza ambiental en América Latina en la encrucijada. *Gobernanza Ambiental en América Latina*.
<http://biblioteca.clacso.edu.ar/clacso/se/20150318053457/GobernanzaAmbiental.pdf>
- [46] Tallberg, J., and Zürn, M. (2019). The legitimacy and legitimation of international organizations: Introduction and framework. *Review of International Organizations* 14(4): 581-606.
<https://link.springer.com/article/10.1007/s11558-018-9330-7>
- [47] Fernández-Martínez, J. L., & Font Fàbregas, J. (2018). The devil is in the detail: What do citizens mean when they support stealth or participatory democracy? *Politics*, 38(4), 458-479.
<https://doi.org/10.1177/0263395717741799>
- [48] Zürn, M. (2016). Opening up Europe: Next steps in politicisation research. *West European Politics* 39 (1): 164-182.
<https://www.tandfonline.com/doi/abs/10.1080/01402382.2015.1081513>
- [49] Spalding, M. (2016). The new blue economy: the future of sustainability. *Journal of Ocean and Coastal Economics* 2(2): 8.
<https://doi.org/10.15351/2373-8456.1052>
- [50] Schultz, L., Folke, H., Österblom, and Olsson, P. (2015). Adaptive governance, ecosystem management, and natural capital. *Proceedings of the National Academy of Sciences* 112(24): 7369-7374. <https://doi.org/10.1073/pnas.1406493112>
- [51] Guerry AD, Polasky S, Lubchenco J, Chaplin-Kramer R, Daily G C, Griffin R, et al. (2015). Natural capital and ecosystem services informing decisions: from promise to practice. *Proc. Natl Acad. Sci. USA*. 2015 Jun 16; 112(24): 7348-7355. pmid: 26082539. <https://www.pnas.org/content/112/24/7348.short>