



PRISMA ODS

REVISTA MULTIDISCIPLINARIA SOBRE DESARROLLO SOSTENIBLE

FROM THE FIELD TO THE CONSUMER: THE ROLE OF AGROSCIENCES IN THE OPTIMIZATION OF SHORT FOOD SUPPLY CHAINS

DEL CAMPO AL CONSUMIDOR: EL ROL DE LAS AGRO-CIENCIAS EN LA OPTIMIZACIÓN DE LOS CIRCUITOS CORTOS DE COMERCIALIZACIÓN

AUTORES

✧ **DUSTIN TAHISIN GÓMEZ RODRÍGUEZ**
UNIVERSITARIA AGUSTINIANA
COLOMBIA

✧ **CARLOS DAVID MARTÍNEZ RAMÍREZ**
UNIVERSITARIA AGUSTINIANA
COLOMBIA

✧ **JOSÉ MANUEL BARRETO HERNÁNDEZ**
UNIVERSITARIA AGUSTINIANA
COLOMBIA

Volumen 3 – Número 1
2024

From the Field to the Consumer: The Role of Agrosiences in the Optimization of Short Food Supply Chains

Del Campo al Consumidor: El Rol de las Agro-ciencias en la Optimización de los Circuitos Cortos de Comercialización

Dustin Tahisin Gómez Rodríguez

dustin.gomez@uniasturias.edu.co

<https://orcid.org/0000-0001-5359-2300>

Universitaria Agustiniana
Colombia

Carlos David Martínez Ramírez

carlos.martinezr@uniagustiniana.edu.co

<https://orcid.org/0000-0002-0313-0113>

Universitaria Agustiniana
Colombia

José Manuel Barreto Hernández

jose.barreto@uniagustiniana.edu.co

<https://orcid.org/0009-0005-7469-3895>

Universitaria Agustiniana
Colombia

Artículo recibido: 10 de octubre del 2024

Aceptado para publicación: 12 de noviembre 2024

Conflictos de Intereses: Ninguno que declarar

ABSTRACT

The general objective of this study is to analyze the synergies between agrosciences and short food supply chains (SFSC), identifying the challenges that affect their sustainability and efficiency within agri-food systems. To this end, a qualitative approach is employed, based on a systematic literature review using the PRISMA method, ensuring a rigorous analysis of relevant scientific sources. The results highlight three key areas in the interaction between agrosciences and SFSC: (1) technological innovation and traceability, where tools such as blockchain and precision agriculture enhance efficiency but face economic and technological barriers; (2) agroecology and sustainability, which strengthen the resilience of the agri-food system, although their implementation is hindered by a lack of incentives and differentiated regulation; and (3) socio-economic organization and territorial governance, which are fundamental for producer coordination and market stability. In conclusion, integrating agrosciences into SFSC is crucial for the sector's sustainability, but it requires investment in infrastructure, inclusive public policies, and participatory governance strategies.

Keywords: agribusiness, agri-food supply chains; food traceability, agroecological production, sustainable rural development

RESUMEN

El objetivo general de este estudio es analizar las sinergias entre las agrociencias y los circuitos cortos de comercialización (CCC), identificando los desafíos que afectan su sostenibilidad y eficiencia en los sistemas agroalimentarios. Para ello, se emplea un enfoque cualitativo basado en la revisión sistemática de literatura mediante el método PRISMA, garantizando un análisis riguroso de fuentes científicas relevantes. Los resultados evidencian tres áreas clave en la interacción entre agrociencias y CCC: (1) la innovación tecnológica y la trazabilidad, donde herramientas como blockchain y agricultura de precisión optimizan la eficiencia pero enfrentan barreras económicas y tecnológicas; (2) la agroecología y sostenibilidad, que fortalecen la resiliencia del sistema agroalimentario, aunque su implementación se ve limitada por la falta de incentivos y regulación diferenciada; y (3) la organización socioeconómica y gobernanza territorial, fundamental para la articulación de los productores y la estabilidad del mercado. En conclusión, la integración de las agrociencias en los CCC es clave para la sostenibilidad del sector, pero requiere inversión en infraestructura, políticas públicas inclusivas y estrategias de gobernanza participativa.

Palabras clave: agronegocios, cadenas de suministros agroalimentarios, trazabilidad alimentaria, producción agroecológica, desarrollo rural sostenible

INTRODUCTION

Agrosciences, as an interdisciplinary field, integrate knowledge from agronomy, biotechnology, ecology, and agricultural economics to optimize production systems in terms of sustainability and resilience (Reyes, 2016). In this context, short food supply chains (SFSC) emerge as a key mechanism for strengthening synergies between producers and consumers, minimizing intermediation, and promoting more equitable and sustainable agri-food development models (Garzon et al., 2022; 2023).

From an agroecological perspective, SFSC facilitate the valorization of local production through direct sales strategies, farmers' markets, cooperatives, and digital platforms, generating positive externalities such as carbon footprint reduction, enhanced food security, and increased added value at the source (Maluff, 2021). Furthermore, these circuits enhance the construction of socio-economic networks that support territorial governance and stimulate rural economies (Barbosa et al., 2021; Altieri et al., 2015).

Nevertheless, the consolidation of SFSC faces multiple structural and operational challenges (Martínez et al., 2024). Among these, key obstacles include supply fragmentation, variability in product quality, limited logistical infrastructure, and information asymmetries among market actors. Additionally, the lack of robust public policies that provide financial and technical incentives for small-scale producers constitutes a major barrier to the scalability of these models (Gómez et al., 2024; De Souza Santos, 2011).

Within this framework, it is imperative to promote strategies that enhance the efficiency of SFSC through the use of traceability technologies, participatory certification systems, and cooperative management models (Medina & García, 2020). In this way, agrosciences can play a crucial role in identifying innovative solutions that enable the integration of SFSC within a sustainable agri-food production approach, resilient to socio-economic and environmental changes (Correa et al., 2022; FAO & CEPAL, 2021).

Therefore, the general objective of this article is to analyze the synergies between AgroSciences and short food supply chains, identifying the factors that influence their sustainability and efficiency. The research question guiding this study is: How do AgroSciences contribute to the optimization of short food supply chains, and what are the main challenges that limit their implementation and scalability in sustainable agri-food systems?

METHODOLOGY

This research follows a qualitative approach based on a systematic literature review, employing the PRISMA method (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) to ensure rigor in the identification, selection, and analysis of relevant sources (Aguilera et al., 2020). The primary objective is to explore the synergies between AgroSciences and short food supply chains (SFSC) by identifying connections and challenges from the existing scientific literature.

Systematic Review Design

The PRISMA method was applied in four phases:

Identification: a comprehensive search was conducted in indexed academic databases such as Scopus, Web of Science, ScienceDirect, and Scielo (Barbosa et al., 2020).

Selection: duplicates were removed, and inclusion and exclusion criteria were applied.

Eligibility: abstracts and full texts were reviewed to ensure their relevance to the analytical categories.

Inclusion: the most relevant studies were selected for qualitative analysis (Bensman & Leydesdorff, 2009).

Search Strategy and Query Formulation

Search queries were structured based on two primary analytical categories (AgroSciences and short food supply chains), as well as emerging categories identified from the literature: technological innovation and traceability in SFSC, agroecology and sustainability in SFSC, and socio-economic organization and territorial governance in SFSC (Camacho et al., 2023; Castro et al., 2017).

The search equations employed were as follows:

Table 1 Example of Search Equation short food supply chains (SFSC) or Circuitos Cortos de Comercialización

Database	Search Equation
WoS	Tema: (("short food supply chains (SFSC) OR Circuitos cortos de comercialización")) Índices=SCI-EXPANDED, SSCI, A&HCI, ESCI Período de tiempo=Todos los años

	Tema: ("short food supply chains (SFSC) OR Circuitos cortos de comercialización ") Refinado por: Años de publicación: (2016 OR 2017 OR 2010 OR 2013 OR 2015 OR 2012 OR 2009 OR 2011 OR 2014 OR 2008 OR 2020 OR 2021 OR 2022 OR 2019 OR 2018 OR 2006 OR 2005 OR 2004 OR 2003 OR 2002 OR 2001 OR 2000) Índices=SCI-EXPANDED, SSCI, A&HCI, ESCI Período de tiempo=Todos los años
	Tema: ("short food supply chains (SFSC) OR Circuitos cortos de comercialización ") Índices=SCI-EXPANDED, ESCI, A&HCI, SSCI Período de tiempo=Todos los años
Scopus	TITLE-ABS-KEY ("short food supply chains (SFSC) OR Circuitos cortos de comercialización ")
	TITLE-ABS-KEY ("short food supply chains (SFSC) OR Circuitos cortos de comercialización ")
	TITLE-ABS-KEY ("short food supply chains (SFSC) OR Circuitos cortos de comercialización") AND (LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2023) OR LIMIT-TO (PUBYEAR, 2013) OR LIMIT-TO (PUBYEAR, 2012) OR LIMIT-TO (PUBYEAR, 2011) OR LIMIT-TO (PUBYEAR, 2010) OR LIMIT-TO (PUBYEAR, 2009) OR LIMIT-TO (PUBYEAR, 2008) OR LIMIT-TO (PUBYEAR, 2000) OR LIMIT-

Source: Own elaboration.

Table 2 Example of Search Equation Agrociencias or Agrosiences

Database	Search Equation
WoS	Tema: ("Agrociencias or Agrosiences")) Índices=SCI-EXPANDED, SSCI, A&HCI, ESCI Período de tiempo=Todos los años
	Tema: ("Agrociencias or Agrosiences") Refinado por: Años de publicación: (2016 OR 2017 OR 2010 OR 2013 OR 2015 OR 2012 OR 2009 OR 2011 OR 2014 OR 2008 OR 2020 OR 2021 OR 2022 OR 2019 OR 2018 OR 2006 OR 2005 OR 2004 OR 2003 OR 2002 OR 2001 OR 2000) Índices=SCI-EXPANDED, SSCI, A&HCI, ESCI Período de tiempo=Todos los años
	Tema: ("Agrociencias or Agrosiences ") Índices=SCI-EXPANDED, ESCI, A&HCI, SSCI Período de tiempo=Todos los años
Scopus	TITLE-ABS-KEY ("Agrociencias or Agrosiences")
	TITLE-ABS-KEY (("Agrociencias or Agrosiences ")
	TITLE-ABS-KEY (("Agrociencias or Agrosiences")) AND (LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) OR LIMIT-TO (PUBYEAR, 2012) OR LIMIT-TO (PUBYEAR, 2011) OR LIMIT-TO (PUBYEAR, 2010) OR LIMIT-TO (PUBYEAR, 2009) OR LIMIT-TO (PUBYEAR, 2008) OR LIMIT-TO (PUBYEAR, 2000) OR LIMIT-

Source: Own elaboration.

Inclusion and exclusion criteria

Inclusion criteria

Studies published between 2015 and 2024.

Full-text articles available in English and Spanish.

Research addressing the relationship between AgroSciences and SFSC from an academic perspective (Devi Prasad, 2019; Carrizo, 2000).

Qualitative studies, systematic reviews, and articles analyzing public policies in the agri-food sector.

Exclusion criteria

Non-academic documents (news articles, blogs, private sector reports).

Studies not directly related to the analytical and emerging categories.

Publications in languages other than English or Spanish (Rincón & Gómez, 2023; Pliscoff-Varas, 2017).

Data analysis and synthesis

The selected articles were organized in a data matrix, enabling the extraction of relevant information for each analytical category. A qualitative analysis was then conducted using thematic coding, which facilitated the identification of recurring patterns in the literature and the formulation of conclusions regarding the relationship between AgroSciences and short food supply chains (Rushforth, 2016; Van Eck & Waltman, 2009). As a result, 143 studies were identified, consisting of 101 journal articles, 34 institutional documents, and 6 reviews

RESULTS

Technological innovation and traceability in SFSC

The integration of advanced technologies in short food supply chains (SFSC) represents a key strategy for optimizing the efficiency of the agri-food system (Meyer, 2020). The implementation of tools such as precision agriculture, artificial intelligence, and biotechnology enhances production planning, reduces post-harvest losses, and ensures a more stable supply of agricultural products in local markets (Moulaert & Ailenei, 2005). Additionally, process automation through sensors and remote monitoring systems facilitates data-driven decision-making, optimizing natural resource management and reducing the environmental impact of production (Vergara, 2017; World Bank, 2006).

Digital traceability has become a fundamental pillar in strengthening consumer trust in SFSC (Leewuis, 2004). Technologies such as blockchain, QR codes, and georeferenced information platforms allow for verifiable data on food origin, production conditions, and distribution processes (Mora, 2012). This enhances market transparency while enabling producers to access differentiated markets that value food safety and sustainable practices. However, the adoption of these tools remains limited in rural areas due to high costs, connectivity deficiencies, and a lack of technological training among producers (Sánchez & Herrera, 2017; Rodríguez et al., 2016).

Although there are clear advantages, the digitalization of SFSC faces multiple structural challenges (Rendón & Gómez, 2020). Limited financial access for technology acquisition, resistance to change from traditional producers, and the need for adequate regulatory frameworks are barriers hindering these advancements. Therefore, it is crucial to design public policies that promote technology transfer and digital training in rural communities, ensuring greater equity in access to innovation within SFSC (Gómez et al., 2023; FAO, 2018).

Agroecology and sustainability in SFSC

Short food supply chains provide an opportunity to promote sustainable agri-food systems based on agroecological principles (Laverde et al., 2020). Strategies such as crop diversification, integrated pest management, and organic fertilization strengthen the resilience of agricultural ecosystems, reducing reliance on synthetic inputs and improving soil quality (Rastoin, 2015). Likewise, these approaches contribute to minimizing the environmental footprint of production, preserving biodiversity, and reducing greenhouse gas emissions (FAO, 2010; 2009).

From a socioeconomic perspective, SFSC enhance producer autonomy by reducing reliance on intermediaries and improving value distribution along the supply chain (Rodríguez et al., 2018). This leads to higher farmer incomes and greater economic stability in rural communities. However, the consolidation of these models faces challenges related to the absence of governmental incentives, lack of differentiated regulations for agroecological production, and the need to expand the market demand for sustainable products (Gómez & Barbosa, 2024; Álvarez, 2017).

One of the main obstacles to expanding SFSC under an agroecological framework is the limited storage and distribution infrastructure (Gómez, 2024b). The lack of collection centers, cold chain facilities, and efficient transport can lead to product perishability, reducing the competitiveness of small-scale producers. Consequently, greater investment in agri-food infrastructure and public policies promoting product differentiation are necessary to facilitate the integration of agroecological goods into urban and regional markets (Carvani et al., 2017; Berdegúe et al., 2012).

Socioeconomic organization and territorial governance in SFSC

The strengthening of SFSC is largely dependent on the organizational capacity of producers and the implementation of territorial governance models that foster cooperation and efficiency in commercialization (Gómez & Barbosa, 2024). Producer associations, cooperatives, and farmers' markets play a critical role in consolidating distribution networks

that reduce transaction costs and enhance the competitiveness of local products. Furthermore, these structures help generate economies of scale, optimizing access to inputs, financing, and technical training (Arias, 2021; Dematteis & Governa, 2005).

However, supply fragmentation remains one of the key challenges in structuring SFSC (Gómez et al., 2024). Variability in production levels, lack of quality standards, and weak coordination among agri-food system actors hinder market stability. Additionally, informality in commercialization and the absence of specific regulatory frameworks for SFSC limit their expansion and recognition within rural development policies (Chacón, 2021; FAO, 2019).

To overcome these challenges, it is essential to promote participatory governance models that integrate producers, consumers, and institutional stakeholders in the planning and management of SFSC (Gómez & Aguirre, 2023). Strategies such as territorial agreements, local food procurement programs, and participatory certifications can contribute to enhancing market stability and strengthening the producer-consumer relationship. Consequently, SFSC can be consolidated as a viable alternative to promote food sovereignty and socioeconomic development in rural communities (Dávila et al., 2018; Escobar, 2011).

DISCUSSION

The synergies between AgroSciences and short food supply chains (SFSC) create a complex scenario where sustainable development opportunities and structural challenges converge, limiting their consolidation (Gómez & Barbosa et al., 2023). From a technical-scientific perspective, agrosociences provide an innovation framework that optimizes production processes, improves food quality, and ensures environmental sustainability. However, the implementation of these advancements in SFSC requires adaptive strategies that consider the socio-economic conditions of producers and market-specific demands (Rendón & Gómez, 2022; Gandulfo & Rofman, 2020).

One of the main convergence points between these concepts is the promotion of resilient and efficient agri-food systems (Rodríguez et al., 2021). Agroecological practices, biotechnology, and precision agriculture have the potential to boost productivity and reduce dependence on external inputs, enhancing the economic viability of SFSC (Gómez et al., 2021). However, limited access to advanced technologies and a lack of technical training among small-scale producers remain significant barriers to adopting these innovative approaches. Thus, it is essential to develop public policies that facilitate technology transfer and promote agroecological education with a territorial focus (FAO, 2022; Rincón et al., 2004).

Additionally, SFSC play a crucial role in improving value distribution within the agri-food supply chain, reducing intermediation, and strengthening producer-consumer relationships (Gómez et al., 2021). However, their consolidation faces logistical and organizational challenges that limit scalability. Inadequate infrastructure, production variability, and market informality hinder the competitiveness of SFSC when compared to conventional agri-industrial distribution models (Chacón, 2020; Giraldo, 2018).

A critical aspect in this discussion is the role of governance and cooperation among agri-food system actors (Gómez, 2024). The integration of producer networks, the creation of territorial markets, and the strengthening of participatory certification mechanisms can enhance the stability and reliability of SFSC. However, these efforts require greater coordination among governmental institutions, producer organizations, and consumers, as well as the implementation of economic incentives that promote local food production and distribution (Deller et al., 2017; Kalmanovitz & López, 2006).

CONCLUSIONS

The synergy between agrosociences and short food supply chains (SFSC) offers a promising path toward the construction of sustainable and equitable agri-food systems. However, effective implementation depends on overcoming structural challenges related to technology access, logistical infrastructure, and market organization. To address these issues, an integrated approach is essential—one that combines scientific research, policy support, and participatory governance strategies to maximize the benefits of these commercialization models.

The adoption of advanced technologies such as precision agriculture, artificial intelligence, and digital traceability systems (e.g., blockchain and QR codes) presents a key opportunity to improve efficiency and transparency in SFSC. These tools enable better production planning, post-harvest loss reduction, and increased consumer trust by providing verifiable information on product origin and quality. However, significant barriers remain, including high implementation costs, limited digital infrastructure in rural areas, and a lack of producer training. To overcome these limitations, public policies must be designed to facilitate technology transfer, provide financial support for small producers, and develop digital education programs tailored to the realities of the agri-food sector.

SFSC are a fundamental strategy for transitioning to sustainable agri-food models, as they promote agroecological practices such as crop diversification, integrated pest management, and efficient resource use. These approaches not only contribute to reducing environmental

impact but also enhance food security and strengthen the resilience of agricultural systems to climate change. However, large-scale implementation faces obstacles, including the lack of specific governmental incentives, the absence of differentiated regulations for agroecological production, and limited consumer demand for sustainable products in conventional markets. To strengthen SFSC sustainability, it is necessary to establish product differentiation policies, improve storage and distribution infrastructure, and implement participatory certification mechanisms that build consumer confidence in these production systems.

REFERENCIAS BIBLIOGRÁFICAS

- Aguilera, M., Rincón, H., & Gómez, D. (2020). Bioeconomía, una alternativa de investigación en administración y afines. En M. Aguilera, Rincón, y amp; H, Temas y métodos de investigación en negocios, administración, mercadeo y contaduría 193-225. Bogotá: Editorial Uniagustiniana.
- Altieri, M., Nicholls, C., Henao, A., & Lana, M. (2015). Agroecology and the design of climate change-resilient farming systems. *Agronomy for Sustainable Development*, 35, 869–890. <https://doi.org/10.1007/s13593-015-0285-2>
- Álvarez, J. (2017). Economía social y solidaria en el territorio: significantes y construcción de políticas públicas. Pontificia Universidad Javeriana, 1-82.
- Barbosa, E., Gómez, D., & Téllez, C. (2021). Logística e internacionalización de las empresas antes y durante la pandemia del Covid-19. Breve revisión de literatura especializada. *Ciencia, Economía & Negocios*.5: (1).71-96. <https://doi.org/10.22206/ceyn.2021.v5i1.pp71-96>
- Arias, M. (2021). La agroecología: Una alternativa a la crisis ambiental en Colombia. *Revista Internacional de Ciencias Sociales Interdisciplinarias* 10 (1): 49-64. <https://doi.org/10.18848/2474-6029/CGP/v10i01/49-64>
- Barbosa, E., Rojas, J., & Gómez, D. (2021). Prueba piloto del Plan Nacional de Fomento de la Economía Solidaria y Cooperativa Rural - PLANFES. Estudio del caso del municipio de San Antero, Córdoba, Colombia. Otra economía: revista latinoamericana de economía social y solidaria. 14: (25), 77- 94. <https://revistaotraeconomia.org/index.php/otraeconomia/article/view/14924>
- Barbosa, E., Vargas, H., & Gómez, D. (2020). Breve estudio bibliométrico sobre economía solidaria. *Cooperativismo & Desarrollo*, 28(118), 1-20. <https://revistas.ucc.edu.co/index.php/co/article/view/3723>

- Benavides, D., (2017). Conexiones de la salud global. Ediciones Unisalle. DOI: <https://doi.org/10.19052/9789585400696>
- Bensman, S., & Leydesdorff, L. (2009). Definition and identification of journals as bibliographic and subject entities: Librarianship versus ISI Journal Citation Reports methods and their effect on citation measures. *Journal of the American Society for Information Science and Technology*. 60 (6), 1097–1117
- Berdegúe, J., et al. (2012). Desarrollo territorial rural en América Latina: determinantes y opciones de política. En: Berdegúe, J.A. y F. Modrego (eds.). *De Yucatán a Chiloé: dinámicas territoriales en América Latina*. Buenos Aires, Editorial Teseo.
- Camacho, M., Rojas, J., & Santillán, A. (2023). Análisis bibliométrico de la producción científica sobre cooperativas agropecuarias en países hispanoparlantes. *Cooperativismo & Desarrollo*, 31(126), 1-24. <https://doi.org/10.16925/2382-4220.2023.02.01>
- Caravani, A., García, M., & Aznar, A. (2017). El desarrollo rural y la economía verde como instrumentos de lucha contra el cambio climático: un análisis en la Comunidad Valenciana (España). *Economía Agraria y Recursos Naturales*, 17(2), 179-209.
- Carballido, D. (2013). Concepto de territorio: ¿arma de distracción masiva? *Didáctica y Prácticas docentes*. Diplomado en Curriculum y Prácticas escolares en Contexto (Flasco).
- Carrizo, G. (2000). Hacia un concepto de bibliometría. *Revista de Investigación Iberoamericana en Ciencia de la Información y Documentación*, 1(2), 1-10.
- Castro, L., Rincón, M., & Gómez, D. (2017). Educación para la salud: una mirada desde la antropología. *Revista Ciencias de la Salud*, 15(1), 145-163. <https://revistas.urosario.edu.co/index.php/revsalud/article/view/5387>
- Chacón, L., (2020). Competitividad e innovación. Ediciones Unisalle. DOI: <https://doi.org/10.19052/9789585136748>.
- Chacón, L., (2021). Las agrociencias como soporte a una producción agropecuaria sostenible. Ediciones Unisalle. DOI: <https://doi.org/10.19052/9789585148963>
- Correa, G., Suárez, K.V., Obregón, N., De Armas Costa, R.J., Martín, P.F., Serna, Y.B., González, R., Rendón, J.A., y Gómez, D.T., 2022. Las agrociencias en la dimensión de paisajes sostenibles. Ediciones Unisalle. DOI: <https://doi.org/10.19052/9786287510326>.
- Dávila, R., Vargas, A., Blanco, L, Roa, E, Cáceres, L., & Vargas, L. (2018). Características de la economía solidaria colombiana. Aproximaciones a las corrientes influyentes en

- Colombia, CIRIEC España. *Revista de Economía Pública, Social y Cooperativa*, (93), 85-113.
- De Souza Santos, B. (2011). *Producir para vivir. Los caminos de la producción no capitalista*. México d. f., México: Fondo de Cultura Económica.
- Deller, S.; Lamie, D. y Stickel, M. (2017). Local Foods Systems and Community Economic Development. *Community Development*, 48(5), 612-638.
<https://DOI:10.1080/15575330.2017.1373136>
- Dematteis, G., & Governa, F. (2005). Territorio y territorialidad en el desarrollo local. La contribución del modelo slot. *Boletín de la A.G. E.* (39), 31-58.
<https://dialnet.unirioja.es/servlet/articulo?codigo=1161234>
- Devi Prasad, B. (2019). Qualitative Content Analysis: Why is it Still a Path Less Taken? *Forum Qualitative Sozialforschung. Forum: Qualitative Social Research*, 20(3), Art.36,
<http://dx.doi.org/10.17169/fqs20.3.3392>
- Escobar, A. (2011). Epistemologías de la naturaleza y colonialidad de la naturaleza. Variedades de realismo y constructivismo Arturo Escobar. En L. Montenegro (Ed.). *Cultura y Naturaleza Aproximaciones a propósito del bicentenario de la independencia de Colombia* (pp. 49-75). Jardín Botánico de Bogotá, José Celestino Mutis.
- FAO & CEPAL (2021). *Sistemas alimentarios y COVID-19 en América Latina y el Caribe. Como fortalecer los sistemas alimentarios urbanos*. Boletín 19. Santiago. FAO y CEPAL. <https://www.cepal.org/es/publicaciones/45924-sistemas-alimentarios-covid-19-america-latina-caribe-ndeg-12-comportamiento>
- FAO. (2018). *Transformar la alimentación y la agricultura para alcanzar los ODS: 20 acciones interconectadas para guiar a los encargados de adoptar decisiones*. Roma.
<http://www.fao.org/3/i9900es/I9900ES.PDF>
- FAO. (2019). *El estado mundial de la agricultura y la alimentación. Progresos en la lucha contra la pérdida y el desperdicio de alimentos*. Roma.
<http://www.fao.org/3/ca6030es/ca6030es.pdf>
- FAO. (2022). *El estado de la seguridad alimentaria y la nutrición en el mundo 2022*.
<https://www.fao.org/documents/card/es/c/cc3017es>
- Forero, J. (2009). Conformación productiva de los territorios rurales. Reflexiones a propósito de la ponencia del profesor Tulet. En J. Ferro & F. Lozano (Eds.), *Las configuraciones de los territorios rurales en el siglo XXI*. (pp. 231-240.) Bogotá, Colombia; Editorial Javeriana.

- Forero, J. (2010). Economía campesina, pobreza, tierra y desplazamiento en Colombia. En Forero Álvarez, J. (Ed.), *El campesino colombiano, entre el protagonismo económico y la indiferencia de la sociedad*. (pp. 69-119). Bogotá, Colombia: Editorial Javeriana.
- Gandulfo, A. y Rofman, A. (2020). Sistemas locales de producción y consumo de alimentos saludables. *Revista de Ciencias Sociales, Segunda época*, 11(37), 63-82.
- Garzón, B., Barbosa, E., & Gómez, D. (2022). Política pública en la pandemia desde la economía solidaria: circuitos cortos de comercialización-C.C.C. en Colombia (2020-2021). *Apuntes De Economía Y Sociedad*, 3(1), 25-36. <https://doi.org/10.5377/aes.v3i1.14287>
- Garzón, B., Barbosa, E., & Gómez, D. (2023). Las organizaciones comunales como gestoras de reactivación económica: mercados campesinos solidarios en el municipio el Playón, Santander. *CIRIEC Colombia*. (1), 245-257.
- Giraldo, O. (2018). *Ecología política de la agricultura. Agroecología y posdesarrollo*. - San Cristóbal de Las Casas, Chiapas, México: El Colegio de la Frontera Sur.
- Gómez Rodríguez, D. T., & Barbosa Pérez, E. M. (2024). Diálogos entre la economía solidaria y las nuevas ruralidades: estrategias para el desarrollo sostenible . *Cultura Científica*, (21). <https://doi.org/10.38017/1657463X.835>
- Gómez Rodríguez, D. T., Nieto Aguirre, M. A., Martínez Ramírez, C. D. (2024). Circuitos cortos de comercialización, territorio y territorialidad: exploración de similitudes, diferencias y fundamentos. *Ciencia, Economía y Negocios*, 8(1), 127-153.
- Gómez Rodríguez, D., Barbosa Pérez, E., Martínez Ramírez, C., & Avellaneda Avellaneda, Z. (2024). Economía solidaria y educación: Una alianza para el desarrollo sostenible. *Revista Estudios En Educación*, 7(12), 184-204. <http://ojs.umc.cl/index.php/estudioseneducacion/article/view/366>
- Gómez Rodríguez, D.T. (2024b). Solidarity Economy and Public Health for Sustainable Development and Community Well-Being. *Cooperativismo & Desarrollo*, 32(128), 1-15. doi: <https://doi.org/10.16925/2382-4220.2024.01.02>
- Gómez, D. (2024). La producción de alimentos para autoconsumo. *Revista Multidisciplinaria Voces De América Y El Caribe*, 1(I), 52-79. <https://doi.org/10.5281/zenodo.10795207>
- Gómez, D., & Aguirre, M. (2023). Seguridad alimentaria y desarrollo rural en 5 municipios del departamento del Caquetá, Colombia. Periodo 2018-2022. *Población y Desarrollo*. 29: (57), 75-93.

http://scielo.iics.una.py/scielo.php?script=sci_arttext&pid=S2076-054X2023005700075

- Gómez, D., & Barbosa, E. (2023). Agroecología y circuitos cortos de comercialización: Enfoques en diálogo con la naturaleza. *Cooperativismo & Desarrollo*, 31(125), 1–19. <https://doi.org/10.16925/2382-4220.2023.01.02>
- Gómez, D., Barbosa, E., & Laverde, M. (2021). Los circuitos cortos de comercialización y la democracia directa en los territorios. *Apuntes desde la economía solidaria. Inclusión y Desarrollo*, 9(1), 3–12. <https://revistas.uniminuto.edu/index.php/IYD/article/view/2918>
- Gómez, D., Barbosa, E., & Téllez, C. (2023). Política pública en Colombia: La innovación social como estrategia de la Economía solidaria (2018-2022). En: *INOVACIÓN SOCIAL y PÚBLICA Experiencias y aproximaciones a la complejidad contemporánea*. Editorial Universidad de Chile. Santiago de Chile: Chile.
- Gómez, D., Laverde, M. & Barbosa, E. (2021). Short Commercialization Circuits in Local Supply Chains: Economic Revival in the Pandemic. *South Asian Journal of Social Studies and Economics*, 12(2), 1-10. <https://doi.org/10.9734/sajsse/2021/v12i230299>
<https://dialnet.unirioja.es/servlet/articulo?codigo=6294862>
- Kalmanovitz, S. & López, E. (2006). *La agricultura colombiana en el siglo XX*. Bogotá, D. Colombia: Banco de la República
- Laverde, M., Almanza, C., Gómez, D., & Serrano, C. (2020). El Capital Relacional como Recurso Diferencial y Valioso para las Empresas. *Revista Podium*, (37), 57–70. <https://doi.org/10.31095/podium.2020.37.5>
- Leewuis, C. (2004). *Communication for rural innovation. Rethinking agricultural extension*. Oxford, UK: Blackwell Science
- Maluf, R. (2021). Decentralized Food Systems and Eating in Localities: A Multi-Scale Approach. *Revista de Economía e Sociología Rural*, 59(4), e238782. <https://doi.org/10.1590/1806-9479.2021.238782>
- Martínez, C., Gómez, D., Barbosa, E. & Avellaneda, Z. (2024). Tendencias emergentes: diálogos entre la sostenibilidad ambiental en la gestión de proyectos de innovación social para un futuro sostenible. *Ciencia y Sociedad*, 49(2), 77-87. <https://revistas.intec.edu.do/index.php/ciso/article/view/3034/3679>
- Medina, N., & García, I. (2020). Formación de los circuitos económicos solidarios interculturales en el cantón Cayambe. estudio de caso Biovida. *Revista Economía*.72: (11) 63-79. <https://doi.org/10.29166/economia.v72i116.2621>

- Meyer, R. (2020). Los circuitos económicos solidarios como noción referencial. *Revista Economía*. 72.(11),29-43. <https://doi.org/10.29166/economia.v72i116.2637>
- Mora, S. B. (2012). Las empresas del sector agropecuario: racionalidad económica y gestión. *AD-minister*, (21), 87-99. http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1692-02792012000200006&lng=en&tlng=es
- Moulaert, F., & Ailenei, O. (2005). Social economy, third sector, and solidarity relations: A conceptual synthesis from history to present. *Urban Studies*, 42(11), 2037-2053.
- Pliscoff-Varas, C. (2017). Implementando la nueva gestión pública: Problemas y desafíos a la ética pública. El caso chileno. *Convergencia Revista de Ciencias Sociales*, (73), 141-164. <https://doi.org/10.29101/crcs.v0i73.4241>
- Rastoin, J. (2015). Les systèmes alimentaires territorialisés : considérations théoriques et justifications empiriques. *Économies et Sociétés*, 8, 1155-1164. *Revista Internos* (22 de mayo de 2020). La Secretaría de Agricultura Familiar cambió de nombre y avanza en políticas para proteger al sector.
- Rendón, J., & Gómez, D. (2020). Circuitos cortos y verdes. Alimentos si hay. *Revista sur.*: <https://www.sur.org.co/circuitos-cortos-y-verdes-alimentos-si-hay/>
- Rendón, J., & Gómez, D. (2022). Paisaje, territorio y agroindustria. El caso de la palma de aceite en Aracataca Magdalena Colombia. En *Cuadernos de Seminario: Las Agrociencias en la dimensión de paisajes sostenibles*. Número 13 Ediciones. Unisalle Bogotá: Colombia.
- Reyes, G. (2016). Agrociencias y empresas del agro: condiciones y perspectivas en América Latina. En *Cuadernos de seminario 4. Agrociencias en contexto*. Compilador Ardila, A. Doctorado en Agrociencias. Editorial Universidad de la Salle. Bogotá: Colombia.
- Rincón, H., & Gómez, D. (2023). Cambio y aprendizaje organizacional, revisión documental. *Revista CIES*.14: (2),27-49. <https://revista.escolme.edu.co/index.php/cies/article/view/464>
- Rincón, N., Segovia, E., Aguilera, G., López, A., Zavarce, E., y Leal, M. (2004). Los pequeños productores y su participación en el proceso de comercialización agrícola. *Revista de la Facultad de Agronomía*, 21(2), 172-185.
- Rodríguez, D., Laverde, M., & Pérez, E. (2021). Short Commercialization Circuits in Local Supply Chains: Economic Revival in the Pandemic. *South Asian Journal of Social Studies and Economics*, 12:(2), 1-10. <https://doi.org/10.9734/sajsse/2021/v12i230299>

- Rodríguez, H., Ramírez, C., & Restrepo, L. (2016). Nuevas tendencias de la extensión rural para el desarrollo de capacidades de autogestión. *Corpoica cienc. tecnol. agropecu.*, 17(1), 31-42.
- Rodríguez, H., Ramírez, C., & Restrepo, L. (2018). Factores Determinantes de la Sostenibilidad de las Agroempresas Asociativas Rurales. *Revista de Economía e Sociología Rural*, 56(1), 107-122.
- Rushforth, A. (2016). All or nothing? Debating the role of evaluative bibliometrics in the research system. *Research Evaluation*, 25(2), 230-231. <https://doi.org/10.1093/reseval/rvw004>
- Sánchez, A., & Herrera, E. (2017). Desarrollo Rural Local: Un enfoque de desarrollo para el reconocimiento de la diversidad rural y los actores locales. Tesis de Maestría. Universidad de la Salle. Obtenido en: http://repository.lasalle.edu.co/bitstream/handle/10185/21359/72121216_2017.pdf?sequence=1&isAllowed=y
- Van Eck, N., & Waltman, L. (2009). How to normalize co-occurrence data? An analysis of some well-known similarity measures. *Journal of the American Society for Information Science and Technology*, 60, 1.635-1.651
- Vergara, W. (2017). Tierra y territorio en las historias del conflicto. En Cuadernos de seminario 7. Agrociencias y territorio. Editor Correa, G. Doctorado en Agrociencias editorial: Universidad de la Salle. Bogotá: Colombia.
- World Bank. (2006). Enhancing Agricultural Innovation: How to Go beyond the Strengthening of Research Systems. World Bank: Washington, D.C.