Redefining the model: cooperatives in the just ecosocial transition paradigm

Redefiniendo el modelo:

de transición ecosocial justa

(in orcid.org/0009-0008-5182-0937

Oier IMAZ ALIAS

las cooperativas ante el paradigma **HUHEZI** Fakultatea Mondragon Unibertsitatea

> (Spain) p orcid.org/0000-0003-0941-1685

oimaza@mondragon.edu

Jon OLAIZOLA-ALBERDI

jolaizolaal@mondragon.edu

Enpresagintza Fakultatea Mondragon Unibertsitatea

Julen BOLLAIN jbollain@mondragon.edu Enpresagintza Fakultatea Mondragon Unibertsitatea (Spain)

(in orcid.org/0000-0002-1298-5666

Beñat HERCE-LECETA

bherce@mondragon.edu Enpresagintza Fakultatea Mondragon Unibertsitatea (Spain)

(in orcid.org/0000-0002-0505-1857)

Abstract/Resumen

- 1. Introduction
- 2. Theoretical framework
 - 2.1. Just ecosocial transition
 - 2.2. Cooperativism
- 3. Methodology
- 4. Results and discussion
 - 4.1. Principles and their interconnections
 - 4.2. Justice dimensions and cooperative principles
 - 4.3. Translating the framework of just ecosocial transition into cooperative **businesses**
- 5. Proposal to implement ecosocial just transition strategies by cooperative
- 6. Conclusion, limitations and future directions
- 7. References

Redefining the model: cooperatives in the just ecosocial transition paradigm

jolaizolaal@mondragon.edu Enpresagintza Fakultatea Mondragon Unibertsitatea (Spain)

Jon OLAIZOLA-ALBERDI

n orcid.org/0009-0008-5182-0937

Redefiniendo el modelo: las cooperativas ante el paradigma de transición ecosocial justa

Oier IMAZ ALIAS

oimaza@mondragon.edu **HUHEZI** Fakultatea Mondragon Unibertsitatea (Spain) orcid.org/0000-0003-0941-1685

Julen BOLLAIN

jbollain@mondragon.edu Enpresagintza Fakultatea Mondragon Unibertsitatea (Spain)

ncid.org/0000-0002-1298-5666

Beñat HERCE-LECETA

bherce@mondragon.edu Enpresagintza Fakultatea Mondragon Unibertsitatea (Spain)

ncid.org/0000-0002-0505-1857

Citar como/cite as:

Olaizola-Alberdi J, Imaz Alias O, Bollain J, Herce-Leceta B (2025). Redefining the model: cooperatives in the just ecosocial transition paradigm. Iberoamerican Journal of Development Studies 14(1):80-105.

DOI: 10.26754/ojs_ried/ijds.10576

Abstract

This study examines the integration of cooperativism within the just ecosocial transition paradigm, addressing the urgent need for sustainable and equitable economic development. It analyses the alignment of cooperative principles with multidimensional justice considerations, including environmental, social, climate, energy and labour, to identify a framework where cooperatives act as key agents in promoting a just ecosocial transition. A narrative literature review was employed to critically analyse the theoretical and practical interconnections between cooperativism and just ecosocial transition, revealing both opportunities and inherent contradictions. The results and discussion indicate that, although cooperatives inherently support the dimensions of justice crucial to a just ecosocial transition, practical implementation often reveals challenges, particularly in balancing these ideals with market dynamics. A proposal has been made to overcome those challenges based on impact assessment methodologies, such as the Theory of Change.

Keywords: cooperativism, just ecosocial transition, impact assessment, sustainable development, Theory of Change.

Resumen

En este artículo, se estudia la integración del cooperativismo dentro del paradigma de transición ecosocial justa, abordando la necesidad urgente de un desarrollo económico sostenible y equitativo. Se analiza también la alineación de los principios cooperativos con consideraciones de justicia multidimensional, incluidas las ambientales, sociales, climáticas, energéticas y laborales, para identificar un marco en el que las cooperativas actúen como agentes clave en la promoción de una transición ecosocial justa. Por tal motivo, se ha empleado una revisión narrativa de la bibliografía para analizar críticamente las interconexiones teóricas y prácticas entre el cooperativismo y la transición ecosocial justa, lo que ha revelado tanto oportunidades como contradicciones inherentes. Los resultados y la discusión indican que, aunque las cooperativas apoyan inherentemente las dimensiones de la justicia cruciales para una transición ecosocial justa, la implementación práctica a menudo revela desafíos, particularmente en el equilibrio de estos ideales con la dinámica del mercado. Se ha realizado una propuesta para superar dichos desafíos a partir de metodologías de evaluación de impacto, como la teoría de cambio.

Palabras clave: cooperativismo, transición ecosocial justa, evaluación de impacto, desarrollo sostenible, teoría de cambio.

Introduction

In the face of the climate crisis, the urgency to adopt a transformative agenda that fosters an economy grounded in sustainability¹ is more critical than ever. Various indicators reveal that the planet is experiencing significant stress, evidenced by unprecedented weather patterns, biodiversity loss, and ecosystem collapse (Steffen et al. 2020). These signs underscore the necessity for immediate and sustained action to address these environmental emergencies (IPCC 2023). This situation has heightened global awareness of planetary boundaries —thresholds within which humanity must operate to maintain the stability of the Earth's systems, essential for human survival and prosperity (Rockström et al. 2009, Richardson et al. 2023). Transgressing these boundaries risks destabilising,2 the Earth system that supports human life. Moreover, as stated by Chancel et al. (2022), the current socioeconomic model also fosters significant social disparities that need to be addressed.

The academic community has been striving for years to respond to the challenge of sustainable economic development, attempting to balance economic needs with social and environmental concerns. Many approaches have been explored, yet none has fully succeeded (Spaiser et al. 2017). Our research is based on the need for transformation within an environmentally responsible framework, while ensuring a just process for society. Accordingly, this study advocates the adoption of the just ecosocial transition paradigm as an approach to an orderly and just movement towards a sustainable model. There is currently a debate among academics as to the definition of this paradigm. Some authors have expressed reservations about the ambiguity and lack of precision associated with the term (Felli 2014), while others have highlighted its indeterminacy as a potential source of empower collaboration between actors. Those who espouse this view, as Snell (2018), contend that the just ecosocial transition serves as a unifying concept that facilitates the attainment of sustainable development. In this context, just ecosocial transition could be defined as a paradigm that advocates for a shift to a low-carbon economy while ensuring the process is environmentally sustainable, socially equitable, and transforms the socioeconomic model to balance environmental protection with social justice, guaranteeing a dignified existence for all (Harris & McCarthy 2023).

Planetary boundaries show that the dominant focus of organisations on profitability and economic growth needs to be reviewed and balanced with social and environmental issues (Garzon 2022). In addition, the efficacy of market rules is being called into question, with critics arguing that they are insufficient to provide a just solution to the existing problem (Snell 2018, Weller et al. 2024). In this context, modelling a robust and equitable economic system

- 1 For this research, «sustainability» is understood as the socioeconomic model that operates within the limits that allow the regeneration and maintenance of the planet's natural resources and ecosystems (Rockström et al. 2013). This concept implies the ability to sustain these practices over the long term, ensuring a balance between economic growth, environmental conservation, and social wellbeing, without compromising the ability of future generations to meet their own needs (Kuhlman & Farrington 2010).
- This point has been emphasised at international summits, resulting in agreements such as those established in the Paris Agreement.

requires the collaboration of multiple stakeholders, as Novkovic (2022) suggests. It is possible to identify actors that, because of their principles, can achieve balance between economic and environment needs. Social and solidarity economy (SSE) organisations are part of this reality, combining the characteristics of market orientation³ with the fulfilment of democratic, participation and justice values. They are guided by principles of the primacy of people over capital, voluntary and open membership, democratic governance, solidarity, and autonomy and independence from public authorities (Galera & Chiomento 2022). Given the vast and heterogeneous nature of SSE, this study will focus on cooperatives. Defined as SSE entities capable of reconciling economic development and social commitment, cooperatives are considered key components of this group (ICA 2021) and, moreover, agents of transformation (Novkovic 2022), that can internalise their externalities (Novkovic 2019).

The objective of this research is to examine the possible relationship between cooperatives, as SSE organisations, and just transition knowledge domain. Most of the connections between the two bodies of literature have been done in relation to just energy transitions through energy cooperatives; for example, recent research by Schulte and Robinson (2024) highlights the ability of people to participate in just energy transitions through energy communities in general, and energy cooperatives in particular, in Germany and South Africa. Končalović et al. (2023) also provide a comprehensive analysis of energy cooperatives and their role in a just transition in Southeast Europe. They maintain that cooperative values and principles are essential to guaranteeing energy democracy and a genuinely just energy transition process. However, no theoretical link has yet been established, to our knowledge, between the two paradigms described thus far. It may be surmised that establishing this connection could facilitate the implementation of policies that frequently remain in a more theoretical domain (Hampton 2015).

Thus, the research question proposed is: «How can cooperativism facilitate the adoption and implementation of the just ecosocial transition paradigm to ensure sustainable and equitable economic development?».

This paper aims to investigate theoretically the gap in the literature, focusing on the interplay between cooperativism and the just ecosocial transition paradigms. The aim is to reveal how cooperative models can integrate the guiding principles of just ecosocial transition into their ecosystem of principles, values and strategies. Concurrently, it will also respond to those who, as Healy and Barry (2017) correctly asserted, condemn the concept of a just ecosocial transition on the grounds that it is utopian. Understanding the objectives and the framed research question, it becomes clear that this study will offer significant implications for policy-making.

Market orientation is understood as a strategic focus on responding to customers, aligned with the cooperative's commitment to benefit members and impact the community (Agirre et al. 2014).

The paper is structured into six sections. The introduction provides an overview of the topic under investigation, setting the context for the study and outlining the research question. This is followed by an overview of the theoretical framework, which provides a foundation for understanding the concepts of "just ecosocial transition» and «cooperativism». The methodology section then outlines the methodology employed to address the research question. The results section presents the findings, which are then subjected to critical analysis in the following discussion section. Then, to address the various challenges that have been identified, a detailed proposal has been developed. Finally, the conclusion presents a summary of the contributions of the study and identifies potential avenues for future research.

Theoretical framework

The prevailing socioeconomic model, which equates economic growth with success, is in crisis. The structural deficiencies in the social and environmental spheres signal the necessity for a profound transformation. This must occur through the adoption of a different set of values, where the economy is not the central focus. To this end, we will adopt an approach to the conceptual frameworks of just ecosocial transition and cooperativism, with the objective of identifying any research gap in the field.

2.1. Just ecosocial transition

The concept of a "just ecosocial transition", originally rooted in the labour movement, has become a cornerstone of environment and economic policy discussions, particularly in relation to climate change mitigation and the removal of social barriers (Bainton et al. 2021, Rainnie & Snell 2024). Within this paradigm, there is an imperative to balance economic, social and environmental dimensions of transitioning to a low-carbon economy ensuring that this profound transformation promotes social justice and economic inclusivity, while not disproportionately burdening vulnerable communities (Wang & Lo 2021).

Initially, the concept of «just ecosocial transition» was conceived as a mere socio-technical transformation of energy sources. The principal assumption was that this model change would result in significant upheavals, like job losses and economic downturns in certain sectors and regions that would require intervention (Markandya et al. 2016, Marin & Vona 2017, Basilico & Grashof 2024). The labour-oriented transition goal was to transform a model that is heavily dependent on finite resources into one that significantly reduces this dependence, thereby achieving true sustainability

and not harming working conditions (Rosemberg 2010, Basilico & Grashof 2024). However, this reductionist view (Abram et al. 2022) was so labour-centric that it failed to consider the wider impacts of transitioning to a net-zero model (Malakar et al. 2024).

Abram et al. (2022) contends that conventional transition policies, which rely on technological solutions and market rules with the aim of reducing economic and job impacts, only serve to exacerbate existing social issues. This is made evident by the fact that even the European Union policies are specifically geared towards addressing the labour and economic impacts of hotspots, rather than revising the current statu quo. Consequently, a more comprehensive approach that encompasses the various dimensions of justice —labour, environmental, climate, energy, and social—pertinent to the transition process is necessary. Different authors have examined these dimensions in depth (Rosemberg 2010, Evans & Phelon 2016, Sovacool et al. 2016, McCauley & Heffron 2018, Upham et al. 2022). However, authors such as Wang and Lo (2021) stated the need for an integral and holistic conceptual framework, while Abram et al. (2022) have highlighted as a necessity to address the complexity of the decarbonisation process.

In this context, the evolution of just ecosocial transition has been integrative, beginning with labour and environmental dimensions, progressing through climate dimension and concluding with energy and social dimensions. Those who advocate for environmental justice argue that disadvantaged communities should not bear a disproportionate burden for the harms caused by environmental problems and that all citizens should participate equally in the development, implementation and enforcement of environmentally just policies (Schlosberg & Collins 2021). It is noteworthy that the incorporation of environmental considerations within the transition paradigm has prompted a discourse on the relationship of jobs versus environment. This discussion, however, has been perceived as inconsequential and, as Rosemberg (2010) posits, the two dimensions should be conceptualised collectively. Similarly, climate justice extends the discourse to a global scale, addressing injustices resulting from historical emissions and advocating for compensatory and distributive justice for those affected by climate impacts (Harris & Symons 2010, Coventry & Okereke 2017). Energy justice further complements these perspectives by scrutinising inequalities within energy systems, advocating for a just redistribution of energy benefits and burdens, and calling for a restructuring of energy governance to include traditionally marginalised voices (Sovacool et al. 2016, Healy & Barry 2017). The concept of «social justice» is of central importance in the context of environmental, climate, energy and labour dimensions. It is argued that transitions must not only be environmentally sustainable, but also socially just and inclusive (García-García et al. 2020). By maintaining this key dimension at the centre of the approach as can be observed in Figure 1, it is ensured that the benefits and burdens of such transitions are shared fairly, especially among those most vulnerable to the impacts of change.



Figure 1 Integral justice framework for a just ecosocial transition Source: prepared by the authors based on the study of Wang and Lo (2021).

The development of this integrated approach is of critical importance for theoretical advances and to guide practical policymaking to achieve the objective of sustainable developing (Abram et al. 2022, Cigna et al. 2023). Without a commitment to these dimensions, a truly just transformation of socioeconomic realities could not be achieved. Despite the shortcomings in integrating different dimensions, Wang and Lo (2021) argue that adopting a justiceoriented integrative approach across all dimensions fosters a proactive environment, that enables collective action towards a sustainable and equitable future.

There is consensus that the transition should encompass a range of justice-related dimensions. However, there is ongoing debate regarding the specific principles of justice that should inform the transition. Many authors concentrate on Rawls' theories of justice (Rawls 1971), which encompass distributive, procedural and recognition justice. However, other researchers adopt a different approach, integrating additional theories of justice (Upham et al. 2022, Tribaldos & Kortetmäki 2022, Weller et al. 2024). It would be prudent to adopt the approach taken by Tribaldos and Kortetmäki (2022), whereby the principles on which the transition is based must also represent the diversity of dimensions of justice involved.

The paradigm of a just ecosocial transition needs to be understood through a multidimensional and multitheoretical justice approach. As Köhler et al. (2019) argue, this approach faces inherent limitations, such as resistance from established traditional economic sectors and the complexity of trade-offs between different policy areas. Therefore, as Wang and Lo (2021) state in their study, it seems essential to understand the limitations and opportunities of the paradigm when it is applied in practice.

In summary, the approach of a just ecosocial transition represents an urgent call to action to address the interconnected challenges of climate change, social injustice, and economic inequity. Assuming that there are challenges and tensions⁴ in the practical implementation of the paradigm, it is of the utmost importance to maintain a commitment to them to pave the way for a more just and liveable world for all.

2.2. Cooperativism

The concept of «cooperativism», rooted in collaborative and associated economic and social activities, has evolved significantly over the years, demonstrating a resilient capacity to contribute to economic development (Garteiz-Aurrecoa 2016, Belmonte et al. 2018). This type of organisation emerges as collective responses to economic and social needs unmet by traditional market mechanisms⁵ (Novkovic 2019). Cooperativism has expanded across various sectors —agriculture, finance, and services— and has adopted several forms —consumer, producer, or worker cooperatives— to continue to meet the needs of their members and community (Garteiz-Aurrecoa 2016, Belmonte et al. 2018). This form of organisation has elements that distinguish it from the others, recognised in the cooperative principles (ICA 2021) and based on the voluntary and democratic participation of members. By way of definition, it could be said, as Novkovic et al. (2022) summarise in their research, that «cooperative enterprise is known to be a hybrid organisation with dual characteristics, as an enterprise and an association of members».

The evolution of cooperatives has been characterised by their distinctive capacity to reconcile economic necessity with community values, which frequently encompass equity, mutual support, and sustainability. This type of alignment is particularly evident in how cooperatives engage with the idea of sustainable economic development (Castilla-Polo & Sánchez-Hernández 2020, Nagao-Menezes 2023, Yakar-Pritchard et al. 2023). The genesis of cooperatives is typically a social collective response to market deficiencies (Novkovic 2019). Their evolution is often characterised by their capacity to adopt a market-oriented approach while maintaining fidelity to their balance between social and environmental needs. The capacity to remain faithful to their origins while simultaneously focusing on the market is achieved through adherence to the prin-

- Ciplet and Harrison (2020) state that just transition is commonly characterised by trade-offs and tensions between social justice concerns, on one hand, and environmental, climate, energy or labour imperatives, on the other.
 - As mentioned in Novkovic's (2022), cooperatives are often formed because of market failures or government policy mistakes; for example, the author shows that cooperatives emerge as self-help solutions in cases of excessive market power (monopoly or monopsony situations), or when the provision of goods and services is not sufficiently profitable for conventional enterprises. These organisations seek to fill the gaps left by the market and the state, providing access to goods and services that would otherwise be unavailable to the community, without seeking to make a profit.

ciples and values that define the cooperative movement (Novkovic 2005). The seven internationally recognised principles (ICA 2021) that give cooperatives their differential value (Novkovic 2005) are as follows: voluntary and open membership, democratic member control, member economic participation, autonomy and independence, education, training and information, cooperation among cooperatives, and concern for community.

However, cooperatives are not merely participants in the market; they could be considered as transformative entities that could alter the economic landscape (Novkovic 2022). This transformation arises from their structure, which is influenced by the cooperative principles. These principles prioritise communal welfare and sustainable development over individual profit maximisation (ICA 2021). By fostering environments where decisions are made democratically⁶ and benefits are distributed equitably, cooperatives empower individuals and communities, leading to enhanced social and economic resilience (Birchall & Simmons 2009). Their ability to address and adapt to local needs —whether by providing crucial services, securing employment, or protecting local resources— enables them to catalyse significant changes in societal structures and economic practices (Novkovic 2022). As cooperatives grow and interconnect globally,7 they can form a robust network capable of driving widespread sustainable development, demonstrating a powerful model for future economic paradigms that emphasise inclusivity, sustainability, and community engagement (Novkovic 2019).

In this context, Webb and Novkovic (2014) make clear that cooperativism creates an enabling environment for the creation of organisations that are people-centred, collectively owned and democratically controlled, giving them unique characteristics that form the basis for a paradigm shift from traditional organisational foundations. However, cooperatives are not without tensions. Although their principles guide their strategies and objectives (Novkovic 2005, Novkovic et al. 2022), market rules also influence their decision-making.8

The inherent tensions of the cooperative model have been recognised and addressed (Novkovic 2005, Novkovic et al. 2022). Studies, such as Altman (2020), indicate that the flexibility of principles and highly competitive markets may cause some cooperatives to deviate from their principles and values, which could result in the loss of the natural competitive advantage that such organisations have. Similarly, Nikolić et al. (2021) present a theoretical framework which outlines potential challenges between market rules and interests of cooperatives. However, the concept of «non-congruent isomorphism» forms the basis of the discussion. As defined by Novkovic et al. (2022), this element can be described as the adoption of everyday market practices by cooperatives that are not aligned with their core principles and values. This could result in a collapse of the cooperative or its transformation into a more con-

- 6 Democratic decision-making is understood as the control and participation of the members. As ICA (2021) says in the cooperative principle statement, «democracy is a simple concept: the governance or control of an organisation by its members through majority decision-making».
- The sixth cooperative principle (ICA 2021), cooperation between cooperatives, emphasises the importance of cooperation and partnerships between different cooperatives at local, national, regional and international levels, always remaining true to cooperative values and principles.
- Considering market pressure, it can be argued that the contrast of this hypothesis with the members of the cooperatives would disprove it, as outlined by Novkovic (2005) in her research. Nevertheless, over the years, this tension has existed, as acknowledged by the same author in another research project (Novkovic et al. 2022). In this study, the author states that the competitiveness of a capitalist environment will generate tensions in cooperatives.

ventional, capital-focused entity. This may occur during the internationalisation process, which is sensitive to the relationship with cooperative principles. This could present a significant challenge for these organisations, as Flecha and Ngai (2014) argue.

In conclusion, cooperatives represent a significant potential for transforming our social and economic relationships. The success of cooperatives is largely contingent upon their founding principles, although these are not without inherent tensions. While cooperatives are designed to develop business practices that prioritise the interests of people, their dual nature can sometimes undermine these advancements in a single decision. It is, therefore, essential that cooperatives remain true to their principles and ensure that they can effectively drive the transformation process and sustain their ability to operate within a resilient economic framework (Novkovic 2022).

The alignment of cooperative principles with the justice dimensions of a just ecosocial transition suggests that cooperatives represent a promising avenue for the actualisation of the paradigm in economic practices. A thorough examination of energy communities-cooperatives and their impact on the energy transition (Končalović et al. 2023, Schulte & Robinson 2024) reveals this to be the case. However, a notable gap in the existing literature is the lack of studies exploring the theoretical relationship between cooperatives and just ecosocial transition. Consequently, this research aims to analyse this possible relationship between these two frameworks, focusing on their theoretical common points.

Methodology

The methodology employed in this study to address the research question is a narrative review (Snyder 2019). This type of literature review is distinctive in terms of its flexibility, multidimensionality and comprehensiveness (Pînzaru et al. 2022). As outlined by Paré et al. (2015), this is a widely adopted methodology in the field of reviews. However, it is not a systematic review, so there are some methodological weaknesses that we must address. In their methodological review, Paré et al. (2015) provide an accurate description of some of the limitations associated with narrative reviews. These include a lack of explicit and reproducible methods and a lack of explanations of how the review process was conducted.

However, this type of unsystematic form of research has been employed by authors such as Pînzaru et al. (2022) in cases such as the present one, where two previously unrelated literary corpora must be analysed. Furthermore, this methodology enables us to expand the scope of the study by integrating diverse academic disciplines. This integrative approach is exemplified by studies such as

those conducted by Pînzaru et al. (2022) and Allen and Malekpour (2023). It should be noted that our intention is not to conduct a systematic review of existing literature on the concepts under discussion, with the aim of summarising the existing body of knowledge. The objective of this study is to examine the relationship between just ecosocial transition and cooperativism from different perspectives. This necessitates an investigation of disparate theoretical perspectives, such as those pertaining to guiding principles, energy justice, union movements, and environmental justice, which do not necessarily align with a uniform body of literature. As proposed by Sovacool et al. (2018), a narrative literature review is an appropriate methodology under these conditions.

As stated before, while the methodology presented has some positive aspects that address our objectives, there are also significant limitations that may undermine the robustness of the conclusions obtained. To avoid this situation, based on the system used by Gössling and Reinhold (2024), a more structured approach has been applied. These include evaluation and analysis, group and synthesis, creation of interconnections, analysis with a critical eye, and reflection and practical thinking. The application of this analysis will influence the assessment and analysis of the selected documents, ensuring that the information is relevant and thoughtfully evaluated. Furthermore, this analysis enables the comprehension of the interconnectivity between the documents. As previously stated, the process entails the grouping of information into thematic families to identify patterns that emerge from the data. This is of critical importance for the comprehensive interpretation of the research, facilitating

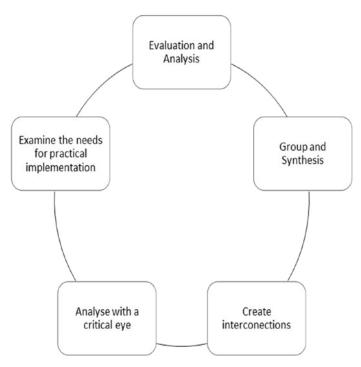


Figure 2 Methodology process Source: prepared by the authors.

more effective triangulation of information and validation of the obtained results. The sequential process is employed to provide a comprehensive overview of the issues, as illustrated in Figure 2.

The preliminary phase of the process entailed a comprehensive examination of literature on the topic of just ecosocial transition and cooperativism. From the presented framework, three elements can be identified as exerting influence on any quest for a just ecosocial transition: firstly, the paradigm has been the subject of considerable study as a form of just transition; secondly, the corpus of literature has emerged from the field of energy and environmental justice; thirdly, it is evident that the involvement of all stakeholders is of paramount importance for the process to be perceived as just. Accordingly, the following search terms were used in the Scopus database: TITLE («just transition*» OR «just energy transitions») AND ALL («energy justice» AND «environmental justice» AND «transition» OR «participation»). This resulted in a total of 191 items being identified. Following a screening of the titles and abstracts of the articles, 10 references were identified as fundamental to our research. The remaining references were either saved (148) for proximity to the subject or discarded (33). This approach was deemed the most suitable option. The principal criterion for inclusion was the addressing of the various dimensions of justice in the context of transitions. This approach has resulted in the creation of a corpus of articles that collectively address different dimensions of justice with the same objective.

To identify the potential relationship between cooperativism and the just ecosocial transition paradigm, a search strategy has been proposed in Scopus as follows: TITLE («just transition*» OR «just energy transitions») AND ALL («cooperative»). Our research revealed that a total of 45 references address the relationship between cooperativism and just transition. It should be noted that, through the process of screening the articles, as with the previous concept, some references are discarded (15) and others are kept (13). The criteria for inclusion or exclusion are based on the extent to which the subject matter is relevant to the topic under discussion. It is worth mentioning that 5 references of particular interest regarding cooperative values and principles have been identified in the screening and included in the review.

Results and discussion

To investigate the research question, it is essential to analyse the relationship between the key factors. This involves combining the principles of cooperatives with the various justice dimensions and theories of ecosocial transition, to demonstrate their capacity to implement transformative strategies.

4.1. Principles and their interconnections

According to the review, cooperatives appear to be an effective vehicle for implementing just ecosocial transition strategies, due to their transformative nature (Novkovic 2019). Cooperatives are conceptualised as corrective entities for market failures (Novkovic 2022), hybrid entities with a nature between enterprises and associations (Novkovic 2022), democratic and participatory organisations (ICA 2021), transformative institutions (Novkovic 2019) and are ultimately driven by their principles and values (Novkovic 2008). It can be argued that cooperatives can facilitate the implementation of strategies that aim to alter the current statu quo (Novkovic 2019). This transformative approach is necessary for a fundamental reason: the inability of the market to respond to the requirements of a genuinely just ecological and social transition (Cigna et al. 2023, Weller et al. 2024).

Considering the above, energy cooperatives, as part of energy communities, represent a tangible example of the connection between cooperatives and transitions (Schulte & Robinson 2024). However, some have raised concerns about them, stating the potential for discrimination against non-members and the possibility of a financial elitist structure (Schulte & Robinson 2024). Due to this fact, we consider it essential to explore the interrelationship between cooperative principles and ecosocial transition justice principles with a view to determining whether the cooperatives represent specific cases or whether the connection between the two is in fact more general. It is worth mentioning that such types of connections have already been made in other studies, such as Rowlston and Duguid (2020).

When evaluating just ecosocial transition, various approaches merit consideration. Our review has found that much of the academic focus centers on assessing the impact of transitions on areas such as employment, technology, communities and the environment. Wang and Lo (2021) pointed out that transitions can be examined from multiple perspectives, including those related with justice theories. When specifically considering the justice perspective of the transition, it is important to note that many authors, as highlighted by Upham et al. (2022), choose Rawlsian theories of justice based on the influence of environmental justice. A clear example is the framework proposed by McCauley and Heffron (2018), which aligns with Rawlsian theories of distributive, procedural and recognition justice.

In line with the review and, as we have illustrated in the framework, the evolution of the transition paradigm has been incorporating different justice theories, to ensure a just process for all stakeholders. In this context, Upham et al. (2022) discuss how some within the academic community integrate not only the Rawlsian theories previously mentioned but also additional perspectives, such as cosmopolitan justice and restorative justice (Mc-Cauley & Heffron 2018). Tribaldos and Kortetmäki (2022) argue that the Rawlsian approach is not sufficiently flexible to accommodate the diverse circumstances that arise during a transition. In line with this reasoning, Weller et al. (2024) identify a framework of just transition based on different justice perspectives, including other types of theories and principles. Particularly interesting is the approach of Tribaldos and Kortetmäki (2022), that not only accepts the inclusion of Rawlsian theories but also employs a more holistic framework, like the one descried by Wang and Lo (2021). This framework integrates various theories of justice to address potential impacts, that may arise when implementing transition strategies.

Our review indicates a consensus among the authors regarding the integration of distributive, procedural, and recognition justice. However, we have noticed that the framework presented by Tribaldos and Kortetmäki (2022) allows the inclusion of the Rawlsian justice theories and capabilities, cosmopolitan environmental and ecological justice, achieving a holistic framework. Finally, these authors assume and understand that these theories are the basic principles that will guide any transition strategy. To deepen our understanding of these justice principles, we present Table 1.

Guiding principle justice dimension	Original author	Definition
Distributive justice	Rawls (1971)	It is concerned with ensuring that all people have equal access to resources and opportunities, while sharing the benefits and disadvantages of change fairly
Procedural justice	Fraser (2009) Nussbaum (2006, 2011) Rawls (1971)	It emphasises the significance of decision- making methods that are comprehensive, candid and participatory
Recognition and respect	Fraser (2000) Schlosberg (2007) Young (1990) Rawls (1971)	The transition process appreciates various identities, knowledge and requirements, by promoting respect and inclusion of all voices
Training and empowerment	Nussbaum (2011) Sen (1980)	It emphasises the importance of boosting individuals' and societies' ability to involve themselves in shifts actively and adjust to them
Restorative justice	Hearn <i>et al.</i> (2021) Rawls (1971)	It emphasises the importance of provide remedy to the possible injustices generated in the transition
Cosmopolitan and ecological justice	Fraser (2009) Morena <i>et al.</i> (2020)	It does it recognise worldwide interdependence and common responsibility for sustainability, along with respecting ecological soundness, as well as non-human creatures

Table 1 Guiding principles of just ecosocial transition Source: prepared by the authors, based on the study of Tribaldos and Kortetmäki (2022).

In the case of cooperatives, the agreement in the context of the principles is more straightforward. These principles have been in place since the beginning of cooperativism and are, since 1995, internationally recognised and accepted (Novkovic 2008, ICA 2021). There is a consensus among authors that the principles of cooperatives form the foundation of the differential value proposition of cooperatives; for example, Novkovic (2008) posits that principles represent the fundamental common ground that all cooperatives must uphold to ensure their identity and integrity. Other authors, such as Altman (2020) and Novkovic et al. (2022), view principles as the guarantors of the differential advantage offered by cooperatives.

Having identified the two groups of principles that we wish to link, we will now proceed to an exercise in which each of the guiding principles of justice will be approached from the perspective of cooperative principles.

4.2. Justice dimensions and cooperative principles

Starting with the concept of «distributive justice», it constitutes a principal theoretical framework for understanding the nature of a just ecosocial transition. In this sense, it is worth highlighting the definition given by Castilla-Polo and Sánchez-Hernández (2020), when stating that cooperatives have always strived to enable people to have access to goods and services without exploitation, to satisfy their needs and aspirations. Cooperative principles possess an intriguing nuance regarding distributive justice, whereby they guarantee, firstly, economic participation for members and, secondly, allow individuals to access the cooperative on a voluntary and free basis (ICA 2021). Furthermore, the fact that decisions are taken democratically means that cooperativism is better placed than other organisations to distribute resources fairly. This has led cooperatives to be present in markets where, to ensure security for people, they assume higher producer prices (Novkovic 2008). Therefore, it can be said that they are organisations with the capacity to influence the fair distribution of resources.

In terms of «procedural justice», equal opportunities for participation in decision-making processes (Tribaldos & Kortetmäki 2022) seems to be closely related to the fundamental nature of the cooperative, which requires that decisions be made through a democratic process (ICA 2021). The review demonstrates that a truly just ecosocial transition can only be achieved through multi-level participatory decision-making (García-García et al. 2020). Furthermore, it demonstrates that cooperatives are organisations founded on principles of autonomy and democracy (Novkovic 2008). In this context, the democratic and autonomous nature of cooperatives is in alignment with procedural justice, as both promote equal participation and collective empowerment in decision-making.

Related to the previous two, the concept of «recognition justice» is employed to examine the ways in which institutional hierarchies of value impede the ability of certain groups to participate as equals in society (Upham et al. 2020). Cooperatives, as Novkovic (2019) posits, emerge in response to the incongruence between their values and those prevailing in the market. In a further reflection offered by Novkovic (2022), the author states that cooperatives are organisations based on ethical practices, including selfhelp, equity and solidarity. In this regard, it can be argued that the non-discrimination of individuals is an inherent value of the model. This way, a diverse participation can be achieved through voluntary and free membership of the cooperative, democratic decision-making and organisational autonomy (ICA 2021), while discrimination against the most vulnerable is avoided⁹ (Novkovic 2022).

«Capacity theory» is also of significant importance for the realisation of a just ecosocial transition, as it acknowledges the necessity of creating opportunities for individuals to live in a manner that is respectful of their inherent dignity in the future (Tribaldos & Kortetmäki 2022). This principle is manifested in the context of the ecosocial transition, along with the other principles, to generate a future model in which people could live in dignity. As has been previously stated, cooperatives are established to respond to the needs of individuals for whom the market is unable to provide sufficient satisfaction without jeopardising fundamental aspects of their lives (Novkovic 2019). It can be argued that the cooperative offers a means by which individuals can achieve these opportunities for a dignified life (Novkovic 2022). As with the theory of distributive justice, the cooperative can indirectly improve the environment and opportunities available to the community, as they are entities with a clear interest in the community (Novkovic 2008). Moreover, the findings of studies, such as that of Castilla-Polo and Sánchez-Hernández (2020), support the view that cooperatives have the potential to become key drivers of sustainable development, ensuring dignity conditions for future society. We would like to conclude by noting that the realisation of capabilities theory is also achieved through the Education, Training, and Information principle, which provides empowerment for individuals both directly and indirectly involved in the cooperative (ICA 2021).

To address the broader areas that are not solely concerned with ecosocial transition strategies, it is necessary to consider the concept of «cosmopolitan justice» (Tribaldos & Kortetmäki 2022). Justice should not be an element of local relationships; rather, it is a concept that responds to the interconnected nature of society, as evidenced by the preceding theories. It is noteworthy that, when the cooperative principles are considered in their entirety, this intercooperation occurs at a high level of relationship with justice, which is absent in other more conventional organisations. In this context, Novkovic (2005) asserts that, if cooperatives that are transitioning

It is important to note that, in some cases, cooperatives can become detached from their surrounding environment and develop elitist structures, as illustrated by Schulte and Robinson (2024) in their research.

to a global environment remain faithful to their founding principles, they can foster the creation of a global cooperative environment. This, in turn, can facilitate the achievement of the objectives.

Thus far, our attention has been directed towards the pursuit of justice for individuals. However, it is evident that the concept of an ecosocial just transition encompasses a significant environmental dimension (Tribaldos & Kortetmäki 2022). This dimension is related to the principle of community interest. By promoting sustainable practices, cooperatives ensure continued economic activity in the present and future, while also respecting and protecting biodiversity and ecosystem health (Novkovic 2008). Furthermore, it is also important to recognise that the inherent tensions in adapting cooperatives to market forces may result in the practices becoming more like those of competitors (isomorphism), which could potentially lead to these more diffuse goals being overlooked (Novkovic 2022). The duality inherent to the cooperative model can only be effectively managed by ensuring that the core values of cooperatives are safeguarded through the principle of education (ICA 2021).

To make it more visual, we present Table 2, which is based on the relationships presented.

Guiding principle just ecosocial transition Tribaldos & Kortetmäki 2022)	Cooperative principle (ICA 2021)
istributive justice	Member economic participation Voluntary and open membership Democratic member control
rocedural justice	2. Democratic member control
Recognition and respect	Voluntary and open membership Democratic member control Autonomy and independence
apabilities theory	 Voluntary and open membership Democratic member control Member economic participation Education, training and information Concern for community
osmopolitan justice	6. Cooperation among cooperatives
vironmental and ecological justice	7. Concern for community 5. Education, training and information

Relationship between just ecosocial transition guiding principles and cooperative principles Source: prepared by the authors based on the identify justice theories and cooperative principles.

In conclusion, there is an initial alignment between the principles of a just ecosocial transition and the cooperative principles of the ICA (2021). This congruence demonstrates how cooperatives, from their theoretical base, provide support and embody the necessary dimensions of justice for a just ecosocial transition. By integrating these two principle-groups into their operations, cooperatives can act as key agents in the creation of inclusive and resilient communities. This synergy not only reinforces the relevance of cooperatives in addressing today's global challenges, but also highlights their potential to transform the world towards a just and sustainable future.

4.3. Translating the framework of just ecosocial transition into cooperative businesses

Having noted that cooperatives can facilitate the implementation of just ecosocial transition strategies by aligning the principles of both, we would like to highlight two aspects of interest identified in the framework.

On the one hand, while the theoretical approach given in the results provides a sound basis, the review shows us that its practical applicability seems limited. It is of paramount importance to consider the tensions of the application of cooperative principles (Novkovic et al. 2022), as there is a risk that these principles remain idealistic or utopian if they are not effectively integrated into the practical and operational realities of cooperative organisations. To fully embody the principles of a just ecosocial transition, cooperatives must not only endorse these values in their mission statements, but also demonstrate them through practical, everyday actions (Novkovic 2008). The practical application of these guiding principles frequently gives rise to tensions, particularly when market rules and competitors adopt an aggressive stance (Novkovic et al. 2022).

On the other hand, the review has shown us that just ecosocial transition cannot be achieved through current market practices (Weller et al. 2024) and that more transformative strategies are required (Abram et al. 2022). However, we must be aware that these transformative strategies will generate impacts of various characteristics, as recognised by Tribaldos and Kortetmäki (2022). In this sense, although not directly analysed, the concept of «social and environmental impacts» becomes present and important within just ecosocial transition.

We are thus faced with a complex reality to manage. Although cooperatives seem to be actors that can naturally implement just ecosocial transition strategies, their own internal tensions and the indeterminate nature of the impacts generated by the transition strategies may mean that the common objective is not achieved. The analysis could be left at this point, but we believe that from our position we could provide a potential solution to the problem identified.

Proposal to implement ecosocial just transition strategies by cooperative

One potential avenue for effectively managing the impacts created by the practical implementation of the principles stated before may be through the application of social impact assessment (SIA) methodologies. This reasoning is not of our own making but derives from Malakar et al. (2024), who understand that a transition to net zero must be genuinely from a social point of view just and that this can only be achieved through a methodological study that incorporates participatory, preventive and rigorous elements. Furthermore, these authors note that the SIA incorporates justice as a basic element, making direct reference to Vanclay (2024).

In this context, Theory of Change (ToC), as advocated by Vogel (2012), provides a proactive framework that guides any organisation, including cooperatives, in setting a clear strategic course. The ToC framework enables the identification of the requisite operational and behavioural changes that organisations must implement and provides a structured blueprint for their implementation. In this context, the ToC enables cooperatives to identify the consequences of their implemented strategies, which is of paramount importance for ensuring alignment with both cooperative and just ecosocial transition principles (Connell & Kubisch 1998).

The rationale for utilising the ToC framework to facilitate the transition of cooperatives towards an ecosocial model is multifaceted. Firstly, it provides a structured mechanism for anticipating the impacts of the transition strategies, thereby enabling cooperatives to engage in proactive planning and mitigation. The ToC framework facilitates strategic clarity and accountability, which are essential for effective planning (Connell & Kubisch 1998). This is achieved by mapping out causal pathways and assumptions. Secondly, the ToC is in close alignment with the principles of cooperatives, as it promotes democratic participation, economic involvement of members, and a deep-seated concern for the welfare of the community. Bello-Bravo et al. (2022) assert that the participatory nature of the ToC process ensures that stakeholders are actively involved in defining goals and strategies, which aligns with the core values of cooperatives. Furthermore, the generated impacts are more likely to be balanced when they are agreed with all stakeholders. Finally, the ToC facilitates strategic focus, enabling cooperatives to align their day-to-day operations with their long-term goals of sustainability and equity. As Clark et al. (2004) note, a well-articulated ToC not only guides implementation but also serves as a tool for continuous learning and adaptation, which is critical for achieving sustainable development outcomes. Moreover, the integration of feedback loops and continuous monitoring enables cooperatives to adapt their strategies in a dynamic manner, thus ensuring that the

principles of a just ecosocial transition are embedded into their operational practices and that all generated impacts are managed correctly (Malakar *et al.* 2024, Vanclay 2024).

It can be argued that the integration of the ToC into cooperatives will facilitate the implementation of the previously identified framework with greater coherence. Consequently, this study has developed a flow-integrated scheme (Figure 3).

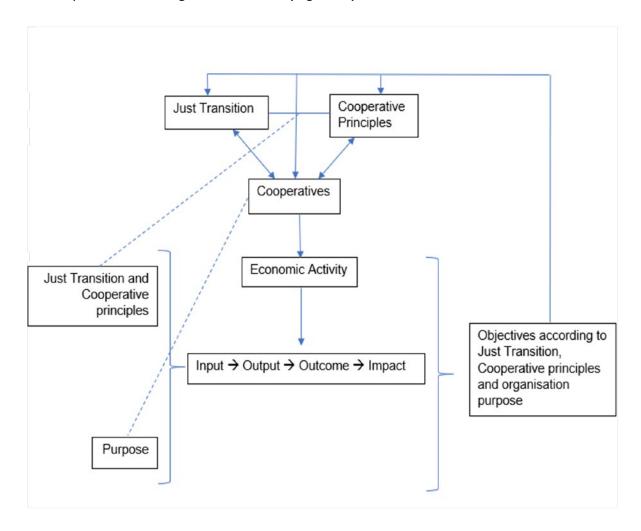


Figure 3Framework for implementing just ecosocial transition in cooperatives *Source:* prepared by the authors.

The process commences with the establishment of a blend of just ecosocial transition guide principles and cooperative principles. These principles are operationalised through the cooperative's economic activities, thereby exemplifying the practical realisation of their commitment to just ecosocial transition objectives.

The rationale underlying these activities is aligned with the just ecosocial transition and cooperative principles, thereby providing justification for the cooperative's actions. This leads to a sequence, accurately described in Clark *et al.* (2004), of inputs (the resources and strategies used), outputs (the direct results of these inputs),

outcomes (the broader effects on the cooperative and its stakeholders), and impacts (the long-term changes in the community and environment). Final impact management involves the evaluation, understanding, and enhancement of a cooperative's impacts. This stage involves the setting of impact goals, the measurement of performance, and the use of this data to inform decisions and improve practices. These objectives are influenced by just ecosocial transition principles, cooperative values, and individual purposes. To effectively manage and contribute to the just ecosocial transition, they must be oriented towards concrete objectives. In conclusion, it can be stated that the framework identified is based on a circular process rather than a linear one.

Our approach is characterised by the adjustment of the initial part of the ToC sequence. Rather than recognizing that the catalyst for the process is the business purpose, we have integrated both the ecosocial just transition and the cooperative principles. This aligns with Vanclay (2024), who posits that a genuine transition, whether green, digital, or otherwise, will only be achieved if all actors involved effectively control and reduce the impacts of their activities on the environment.

6 Conclusion, limitations and future directions

The current socioeconomic model is in urgent need of transformation to address its inherent problems. This research proposes an ecosocial transformation, with a particular focus on ensuring justice, to guarantee equality for all agents. Despite the theoretical advancements, the implementation of fair and sustainable transition strategies remains a formidable challenge. The objective of this theoretical framework is to intertwine just ecosocial transition and cooperativism to bridge the gap between them. The approach taken has been to focus on three foundational questions: «Why are these transitions necessary?», «who will spearhead these transitions?», and «how will they be implemented?». By addressing these questions, it becomes possible to identify more clearly the pathways that will lead to the actualisation of the principles of just transition in real-world scenarios.

This study concludes that there is a possible link between cooperativism and the paradigm of a just ecosocial transition. The inherent principles that guide cooperatives can facilitate the operationalisation of transformative strategies, effectively bridging the gap between theoretical frameworks and practical implementation. Nevertheless, the challenge of practical implementation is also known.

In this context, it is of the utmost importance to comprehend transitions from an impact evaluation perspective. The necessity to implement impact evaluation methodologies to guarantee a genuinely equitable transition process is underscored. For theoretical frameworks to be practically efficacious, they must be supported by tangible, measurable outcomes, that reflect the principles of justice and equity. Systematic and reflective methodologies, such as the ToC, are indispensable, because they anticipate, evaluate and adjust the strategies that cooperatives employ to achieve sustainable and equitable impacts. The ToC has been linked to emerging SIA theories, such as impact measurement in SSE organisations, and therefore it is useful to address the limitations of the intangibility of their principles.

The framework identified is designed to facilitate the practical implementation of just ecosocial transition strategies at the organisational level and integrate them into daily operations. However, it fails to address the critical destabilising elements. Although it has been demonstrated that there is a link between cooperative principles and the justice dimensions of an ecosocial transition, which has resulted in successful implementations, the limitations of this theoretical approach have not been explicitly discussed. It is crucial to recognise that both the concept of a «just ecosocial transition» and the principles underlying cooperatives are significantly influenced by the prevailing economic model and the necessity to adapt to market orientations. This adaptation suggests that, unless there is a fundamental shift in market logic, the current model is unlikely to undergo substantial transformation.

A further limitation is related to the methodology selected for the study. The selection of a literature review in narrative form may be open to criticism on the grounds of potential bias in the study. Despite the adoption of a more systematic approach (Figure 1), the possibility of bias remains. Another inherent limitation of the selected methodology is the absence of empirical approximation. Although the theoretical approach has been justified and an attempt has been made to bridge the gap between the principles and the practical approach, it must be acknowledged that no empirical evidence is provided. One additional limitation is identified in the field of motivations towards conscious social impact management. Furthermore, the motivation to work in accordance with the just transition paradigm or cooperativism must be analysed. The third and final limitation pertains to the orientation of the research. The selection of cooperatives as representatives of the SSE actors in the implementation of the just ecosocial transition has attracted criticism. It is reasonable to conclude that other SSE initiatives, such as volunteering or non-governmental organisations, may be more closely aligned with the social environment. These alternatives may be less susceptible to the influence of market orientation and its associated rules.

To circumvent the limitations of the current approach, future research should focus on contrasting cooperative practices to gain

a more comprehensive understanding of the opportunities and challenges presented by the just ecosocial transition framework. By examining a variety of cooperative models, researchers can identify the most effective practices and areas for improvement, thereby enhancing the robustness and applicability of the just ecosocial transition paradigm. Furthermore, analysing the different theories concerning the motivations of transition actors presents a compelling area of research. Understanding why individuals or groups initiate transitions is critical for facilitating successful outcomes. This line of inquiry not only seeks to identify the driving forces behind such changes but also aims to explore how these motivations impact the strategies adopted for transition management. Finally, an examination of other SSE realities could also give more practical insights to the framework identified. At some point, the measurement of impacts generated by transitions will have to be improved and standardised indicators will be needed. One avenue for research is to examine the potential of benchmarking internationally approved materiality indicators.

Despite the acknowledged limitations of the approach presented in this paper and the identified avenues for further research, it represents a crucial step towards embracing diverse perspectives that can catalyse the transformation of the current socioeconomic model. The objective is to identify viable solutions to the significant social and environmental challenges currently facing humanity. In the event of inaction and continued adherence to the current economic and market rules, there is a possibility of significant climatic repercussions that could force a change in the model, regardless of whether we are prepared for it. In conclusion, it is evident that only through the implementation of innovative and inclusive strategies can we hope to prevent such outcomes and secure a sustainable future. Consequently, this research not only contributes to our understanding but also underscores the urgent need for continued exploration and action.

6 References

ABRAM S, ATKINS E, DIETZEL A, JENKINS K, KIAMBA L, KIRSHNER J, KREIENKAMP J, PARKHILL K, PEGRAM T, SANTOS AYLLÓN LM (2022). Just Transition: a whole-systems approach to decarbonisation. Climate Policy 22(8):1033-1049.

AGIRRE I, REINARES P, AGIRRE A (2014). Antecedents to market orientation in the worker cooperative organization: the Mondragon group. Annals of Public and Cooperative Economics 85(3):387-408.

ALLEN C, MALEKPOUR S (2023). Unlocking and accelerating transformations to the SDGs: a review of existing knowledge. Sustainability Science 18(4):1939-1960.

ALTMAN M (2020). Are there core cooperative principles required for cooperative economic success and sustainability? In: Waking the Asian Pacific Co-Operative Potential. Academic Press, pp. 19-33.

- BAINTON N, KEMP D, LÈBRE E, OWEN JR, MARSTON G (2021). The energy-extractives nexus and the just transition. Sustainable Development 29(4):624-634.
- BASILICO S, GRASHOF N (2024). Accelerating the sustainability transition of brown regions: unlocking the speed factor. Environmental Innovation and Societal Transitions 51.
- BELLO-BRAVO J, MEDENDORP JW, PITTENDRIGH B (2022). Just participation or just participation? A participatory justice model for more successful theory of change design, implementation, and solution uptake. Heliyon 8(7).
- BELMONTE J, GUERRERO AJ, CABRERA A (2018). La evolución del movimiento cooperativo desde su origen hasta la actualidad a través de su máximo exponente: la Sociedad Cooperativa. European Scientific Journal ESJ 14(29).
- BIRCHALL J, SIMMONS R (2009). Co-operatives and the economic crisis. International Labour Organization.
- CASTILLA-POLO F, SÁNCHEZ-HERNÁNDEZ MI (2020). Cooperatives and sustainable development: a multilevel approach based on intangible assets. Sustainability 12(10):4099.
- CHANCEL L, PIKETTY T, SAEZ E, ZUCMAN G (2022). World Inequality Report 2022. Harvard University Press.
- CIGNA L, FISCHER T, ABUANNAB E, HEINS E, RATHGEB P (2023). Varieties of Just Transition? Eco-Social Policy Approaches at the International Level. Social Policy and Society 22:730-746.
- CIPLET D, HARRISON JL (2020). Transition tensions: mapping conflicts in movements for a just and sustainable transition. Environmental Politics.
- CLARK C, ROSENZWEIG W, LONG D, OLSEN S (2004). Double Bottom Line Project Report: Assessing Social Impact in Double Bottom Line Ventures. Working Paper Series No. 13. University of California: Berkeley (California).
- CONNELL JP, KUBISCH AC (1998). Applying a theory of change approach to the evaluation of comprehensive community initiatives: progress, prospects, and problems. New Approaches to Evaluating Community Initiatives 2(15-44): 1-16.
- COVENTRY P, OKEREKE C (2017). Climate change and environmental justice. In: The Routledge Handbook of Environmental Justice. Routledge, London, pp. 362-373.
- EVANS G, PHELAN L (2016). Transition to a post-carbon society: linking environmental justice and just transition discourses. Energy Policy 99:329-339.
- FELLI R (2014). An alternative socio-ecological strategy? International trade unions' engagement with climate change. Review of International Political Economy 21(2):372-398.
- FLECHA R, NGAI P (2014). The challenge for Mondragon: searching for the cooperative values in times of internationalization. Organization 21(5):666-682.
- GALERA G, CHIOMENTO S (2022). L'impresa sociale: dai concei teorici all'applicazione a livello di policy. Impresa Sociale 1.
- GARCÍA-GARCÍA P, CARPINTERO Ó, BUENDÍA L (2020). Just energy transitions to low carbon economies: a review of the concept and its effects on labour and income. Energy Research & Social Science 70:101664.
- GARTEIZ-AURRECOA JD (2016). Breve estudio de la evolución histórica del pensamiento cooperativo. Deusto Estudios Cooperativos 8:13-34.
- GARZON A (2022). The Limits to Growth Ecosocialism or Barbarism. Monthly Review-An Independent Socialist Magazine 74(3):35-53.
- GÖSSLING S, REINHOLD S (2024). Accelerating small and medium sized tourism enterprises' engagement with climate change. Journal of Sustainable Tourism:
- HAMPTON P (2015). Workers and Trade Unions for Climate Solidarity. Routledge, London.
- HARRIS DM, MCCARTHY J (2023). A just transition to what, for whom, and by what means? Transition technology, carbon markets, and an Appalachian coal mine. Energy Research & Social Science 106:103307.
- HARRIS PG, SYMONS J (2010). Justice in adaptation to climate change: cosmopolitan implications for international institutions. Environmental Politics 19(4): 617-636.
- HEALY N, BARRY J (2017). Politicizing energy justice and energy system transitions: fossil fuel divestment and a «just transition». Energy Policy 108:451-459.

- ICA (INTERNATIONAL CO-OPERATIVE ALLIANCE) (2021). Co-operative identity, values & principles. https://www.ica.coop/en/cooperatives/cooperative-identity, acceso 9 de septiembre de 2024.
- IPCC (2023). Climate Change 2023: Report. Geneva.
- KÖHLER J, GEELS FW, KERN F, MARKARD J, ONSONGO E, WIECZOREK A, ALKE-MADE F, AVELINO F, BERGEK A, BOONS F, FÜNFSCHILLING L, HESS D, HOLTZ G, HYYSALO S, JENKINS K, KIVIMAA P, MARTISKAINEN M, MCMEEKIN A, MÜHLEMEIER MS, NYKVIST B, PEL B, RAVEN R, ROHRACHER H, SANDÉN B, SCHOT J, SOVACOOL B, TURNHEIM B, WELCH D, WELLS P (2019). An agenda for sustainability transitions research: state of the art and future directions. Environmental Innovation and Societal Transitions 31:1-32.
- KONČALOVIĆ D, NIKOLIĆ J, DŽOKIĆ A, MOMČILOVIĆ P, ŽIVKOVIĆ D (2023). Energy cooperatives and just transition in Southeastern Europe. Energy, Sustainability and Society 13(1):21.
- KUHLMAN T, FARRINGTON J (2010). What is sustainability? Sustainability 2(11): 3436-3448.
- MALAKAR Y, WALTON A, PEETERS LJ, DOUGLAS DM, O'SULLIVAN D (2024). Just trade-offs in a net-zero transition and social impact assessment. Environmental Impact Assessment Review 106:107506.
- MARIN G, VONA F (2017). The impact of energy prices on employment and environmental performance: evidence from French manufacturing establishments.
- MARKANDYA A, ARTO I, GONZÁLEZ-EGUINO M, ROMÁN MV (2016). Towards a green energy economy? Tracking the employment effects of low-carbon technologies in the European Union. Applied Energy 179:1342-1350.
- MCCAULEY D, HEFFRON RJ (2018). Just transition: integrating climate, energy and environmental justice. Energy Policy 119:1-7.
- NAGAO-MENEZES DF (2023). Las sociedades cooperativas como herramienta para la implementación de los Objetivos de Desarrollo Sostenible. Gizaekoa Revista Vasca de Economía Social 20.
- NIKOLIĆ M, BOŽIĆ I, BOŽIĆ D (2021). Cooperative principles in practice: experiences of Serbia. Western Balkan Journal of Agricultural Economics and Rural Development (WBJAERD) 3(2):97-110.
- NOVKOVIC S (2005). Cooperative business: what is the role of cooperative principles and values? In: International Cooperative Alliance Research Conference Cork, Ireland.
- NOVKOVIC S (2008). Defining the co-operative difference. The Journal of Socio-Economics 37(6):2168-2177.
- NOVKOVIC S (2019). Are co-operatives transformative, or just businesses? Working Paper 2019-02. International Centre for Co-operative Management.
- NOVKOVIC S (2022). Cooperative identity as a yardstick for transformative change. Annals of Public and Cooperative Economics 93(2):313-336.
- NOVKOVIC S, PUUSA A, MINER K (2022). Co-operative identity and the dual nature: from paradox to complementarities. Journal of Co-operative Organization and Management 10(1):100162.
- PARÉ G, TRUDEL MC, JAANA M, KITSIOU S (2015). Synthesizing information systems knowledge: a typology of literature reviews. Information & Management 52(2):183-199.
- PÎNZARU F, DIMA AM, ZBUCHEA A, VEREȘ Z (2022). Adopting sustainability and digital transformation in business in Romania: a multifaceted approach in the context of the just transition. The Amfiteatru Economic Journal 24(59):27-44.
- RAINNIE A, SNELL D (2024). Just Transition in Australia depoliticisation? Contemporary Social Science: 1-20.
- RAWLS J (1971). A Theory of Justice. Harvard University Press, Cambridge.
- RICHARDSON K, STEFFEN W, LUCHT W, BENDTSEN J, CORNELL SE, DONGES JF, *ET AL.* (2023). Earth beyond six of nine planetary boundaries. Science Advances 9(37):eadh2458.
- ROCKSTRÖM J, SACHS JD, ÖHMAN MC, SCHMIDT-TRAUB G (2013). Sustainable development and planetary boundaries. Sustainable Development Solutions Network.

- ROCKSTRÖM J, STEFFEN W, NOONE K, PERSSON Å, CHAPIN FS III, LAMBIN E, LENTON TM, SCHEFFER M, FOLKE C, SCHELLNHUBER HJ, NYKVIST B, DE WIT CA, HUGHES T, VAN DER LEEUW S, RODHE H, SÖRLIN S, SNYDER PK, COSTANZA R, SVEDIN U, FALKENMARK M, KARLBERG L, CORELL RW, FABRY VJ, HANSEN J, WALKER B, LIVERMAN D, RICHARDSON K, CRUTZEN P, FOLEY J (2009). Planetary boundaries: exploring the safe operating space for humanity. Ecology and Society 14(2):32.
- ROSEMBERG A (2010). Building a just transition: the linkages between climate change and employment. International Journal of Labour Research 2(2):125.
- ROWLSTON N, DUGUID F (2020). Co-operative sustainability performance measurement: the role of the co-op principles and UN sustainable development goals in the reporting model. International Journal of Co-operative Accounting and Management 3(2):4-19.
- SCHLOSBERG D, COLLINS L (2021). Environmental justice and the transformation agenda: Making the just transition just. Political Geography.
- SCHULTE L, ROBINSON B (2024). Owning the just transition: comparing citizen participation in South African and German wind farms. Contemporary Social Science, pp. 1-31.
- SNELL D (2018). «Just transition»? Conceptual challenges meet stark reality in a «transitioning» coal region in Australia. Globalizations 15(4):550-564.
- SNYDER H (2019). Literature review as a research methodology: an overview and guidelines. Journal of Business Research 104:333-339.
- SOVACOOL BK, AXSEN J, SORRELL S (2018). Promoting novelty, rigor, and style in energy social science: towards codes of practice for appropriate methods and research design. Energy Research & Social Science 45:12-42.
- SOVACOOL BK, ANDERSEN R, SORENSEN S, SORENSEN K, TIENDA V, VAINORIUS A, *ET AL.* (2016). Balancing safety with sustainability: assessing the risk of accidents for modern low-carbon energy systems. Journal of Cleaner Production 112:3952-3965.
- SPAISER V, RANGANATHAN S, SWAIN RB, SUMPTER DJ (2017). The sustainable development oxymoron: quantifying and modelling the incompatibility of sustainable development goals. International Journal of Sustainable Development & World Ecology 24(6):457-470.
- STEFFEN W, RICHARDSON K, ROCKSTRÖM J, SCHELLNHUBER HJ, DUBE OP, DUTREUIL S, *ET AL.* (2020). The emergence and evolution of Earth System Science. Nature Reviews Earth & Environment 1(1):54-63.
- TRIBALDOS TM, KORTETMÄKI T (2022). Just Transition: Integrating Social Justice and Sustainability. Journal of Environmental Policy & Planning 24(1):89-102.
- UPHAM P, SOVACOOL B, GHOSH B (2022). Just transitions for industrial decarbonisation: a framework for innovation, participation, and justice. Renewable and Sustainable Energy Reviews 167:112699.
- VANCLAY F (2024). After 50 years of social impact assessment, is it still fit for purpose? Current Sociology 72(4):774-788.
- VOGEL I (2012). Review of the use of «Theory of Change» in international development. DFID, London.
- WANG X, LO K (2021). Just transition: a conceptual review. Energy Research & Social Science 82:102291.
- WEBB T, NOVKOVIC S (2014). Co-operatives in a post-growth era. Co-operatives in a Post-Growth Era:1-322.
- WELLER S, BEER A, PORTER J (2024). Place-based just transition: domains, components and costs. Contemporary Social Science:1-20.
- YAKAR-PRITCHARD G, RIDLEY-DUFF R, ÇALIYURT K, AKKUŞ Y (2023). How to study cooperatives for sustainable development.