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Environmental Conflicts and Environmental Justice: A Systematic Literature Review

Os Conflitos Ambientais e a Justiça Ambiental: Uma Revisão Sistemática da Literatura

Conflictos ambientales y justicia ambiental: una revisión sistemática de la literatura

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Abstract: *Environmental conflicts arise from both existing environmental damage and emerging threats, disproportionately affecting vulnerable groups, including low-income populations, women, Indigenous peoples, and traditional communities. Environmental justice seeks to promote socio-environmental equity by promoting the active participation of these groups in the protection of natural resources. This study explores the main theoretical approaches, analytical trends, and research gaps in the scientific literature on environmental conflicts and environmental justice through a Systematic Literature Review (SLR). This study adopts an exploratory, descriptive qualitative design and applies the PRISMA protocol for article selection and Content Analysis for data interpretation, supported by Atlas.ti software (version 24). Data were collected from the Web of Science database using the descriptors "environmental conflict*" AND "environmental justice". The findings suggest that political ecology is the dominant theoretical framework, interpreting environmental conflicts as expressions of power asymmetries, extractivism, and the dynamics of global capitalism. Six analytical categories were identified: environmental conflicts and political ecology; environmental justice and inequalities; gender and intersectionality; knowledge and co-production; resistance strategies; and critiques of development models. Emerging approaches include citizen science, knowledge co-production, and degrowth debates. Overall, the field is interdisciplinary and rapidly evolving, presenting significant advances alongside persistent gaps, particularly in theoretical integration and the incorporation of intersectional perspectives, thus reinforcing its relevance in the face of climate change.*

Keywords: *Environmental justice. Environmental Conflicts. Systematic review.*

Resumo: Os conflitos ambientais emergem tanto de danos já consolidados quanto de ameaças potenciais, sendo seus impactos absorvidos de forma desproporcional por grupos vulneráveis, como populações pobres, mulheres, povos indígenas e comunidades tradicionais. Nesse contexto, a justiça ambiental busca promover a equidade socioambiental, enfatizando a participação desses grupos na defesa dos recursos naturais. Este estudo tem como objetivo analisar as

abordagens teóricas, tendências analíticas e lacunas na produção científica sobre conflitos ambientais e justiça ambiental, por meio de uma Revisão Sistemática da Literatura (RSL). Trata-se de uma pesquisa exploratória-descritiva, de abordagem qualitativa, que utilizou o protocolo PRISMA para seleção dos estudos e a Análise de Conteúdo para tratamento dos dados, com apoio do software Atlas.ti (versão 24). A coleta foi realizada na base Web of Science, utilizando os descritores "environmental conflict*" AND "environmental justice". Os resultados indicam a predominância da ecologia política como base teórica, compreendendo os conflitos como expressões de assimetrias de poder, extrativismo e dinâmicas do capitalismo global. Identificaram-se seis categorias analíticas: conflitos ambientais e ecologia política; justiça ambiental e desigualdades; gênero e interseccionalidade; conhecimento e coprodução; estratégias de resistência; e críticas ao modelo de desenvolvimento. Destacam-se abordagens emergentes, como ciência cidadã, coprodução do conhecimento e debates sobre decrescimento. Conclui-se que o campo é interdisciplinar e em expansão, apresentando avanços e lacunas, especialmente na integração teórica e na incorporação de perspectivas interseccionais, reforçando sua relevância diante das mudanças climáticas.

Palavras-chave: Justiça ambiental. Conflitos Ambientais. Revisão Sistemática.

Resumen: *Los conflictos ambientales surgen tanto del daño consolidado como de las amenazas potenciales, cuyos impactos son absorbidos de manera desproporcionada por grupos vulnerables, como poblaciones pobres, mujeres, pueblos indígenas y comunidades tradicionales. En este contexto, la justicia ambiental busca promover la equidad socioambiental, enfatizando la participación de estos grupos en la defensa de los recursos naturales. Este estudio tiene como objetivo analizar los enfoques teóricos, las tendencias analíticas y las brechas en la producción científica sobre conflictos ambientales y justicia ambiental a través de una Revisión Sistemática de la Literatura (RSL). Este es un estudio exploratorio-descriptivo con un enfoque cualitativo, que utilizó el protocolo PRISMA para la selección de estudios y el Análisis de Contenido para el procesamiento de datos, con el apoyo del software Atlas.ti (versión 24). La recopilación de datos se llevó a cabo en la base de datos Web of Science, utilizando los descriptores "environmental conflict*" AND "environmental justice". Los resultados indican el predominio de la ecología política como base teórica, entendiendo los conflictos como expresiones de asimetrías de poder, extractivismo y las dinámicas del capitalismo global. Se identificaron seis categorías analíticas: conflictos ambientales y ecología política; Justicia ambiental y desigualdades; género e interseccionalidad; conocimiento y coproducción; estrategias de resistencia; y críticas al modelo de desarrollo. Se destacan enfoques emergentes como la ciencia ciudadana, la coproducción de conocimiento y los debates sobre el decrecimiento. Se concluye que el campo es interdisciplinario y está en expansión, presentando tanto avances como lagunas, especialmente en la integración teórica y la incorporación de perspectivas interseccionales, lo que refuerza su relevancia ante el cambio climático.*

Palabras clave: *La justicia ambiental. Conflictos ambientales. Revisión sistemática.*

Introduction

The world is facing increasing social and economic impacts resulting from environmental degradation. The need to integrate diverse environmental values into decision-making has never been more evident. Environmental problems and conflicts often arise from trade-offs between competing values (Jacobs *et al*., 2016).

In this view, environmental conflicts are understood as social conflicts arising from environmental issues. Previous research shows that such conflicts emerge in contexts marked by poverty and/or resource scarcity. Environmental conflicts can be understood as manifestations of socio-ecological disputes, while environmental justice provides the normative and analytical framework for interpreting inequalities in the distribution of environmental costs and benefits. These phenomena have been widely studied across disciplines and involve diverse motivations, with different actors mobilizing in response to environmental impacts across various contexts (Scheidel et al., 2020). To describe conflicts arising from the unjust extraction of natural resources and the unequal

distribution of associated impacts, Martínez-Alier and O'Connor in 1996 introduced the concept of ecological distribution conflicts (Conde, 2017).

Martínez-Alier (2023) himself asks, "Why are there so many environmental conflicts?" From an ecological and physical perspective, he argues that environmental conflicts are rooted in ecologically unequal exchange, as the degree of circularity in the industrial economy falls far short of sustainability. This, in turn, demands greater extraction of raw materials, new resources, and energy sources to sustain continuous economic growth.

However, according to Merlinsky (2020), environmental conflicts, through their mobilizations, can contribute to the demand for a safe and healthy public space by enabling government action capable of building alternatives that can transform conflicts into socially just and environmentally responsible political decisions.

The consequences of environmental damage and its impacts on human health are not distributed equally by race, ethnicity, or social class. This is a claim made by Liu et al. (2021) when examining documents that report on disproportionate exposure to environmental contamination among racial and ethnic minorities and low-income populations in the United States. Similarly these studies, Nguyen et al. (2020), demonstrated that these minorities, particularly women, are also excessively exposed to contamination from chemicals dispersed in the environment. Against this backdrop, in 1982, the term Environmental Justice emerged within sociology to denounce the dumping of toxic waste and other materials hazardous to human health in low-income and predominantly black communities, which were unjustly subjected to risks arising from air pollution and soil and water contamination due to the reaction of these products in the environment (Martínez-Alier et al., 2014).

Although the term environmental justice originated from an injustice against a low-income community subjected to the unequal disposal of waste and other contaminating materials in a specific location, the concept has since expanded to encompass a broad range of socio-environmental problems, concerns, and perspectives (Menton et al., 2020). With the creation of the Global Atlas of Environmental Justice (EJAtlas), academics and environmental activists gained access to a tool that allows for the search of data and other relevant information on environmental conflicts worldwide, highlighting their origins, actors, consequences, and resolutions.

The EJAtlas project was created to democratize the production of spatial data, mostly related to natural resource extraction and energy infrastructure projects, drawing on secondary sources such as newspapers, NGO reports, court proceedings, and academic research as its main data sources, resulting in an alternative and participatory process for those who experience the negative impacts of environmental conflicts (Broto & Baker, 2018). Environmental justice thus emerged from the empirical observation of numerous complaints of environmental injustice worldwide, as well as from a critique of economic reasoning for its failure to account for the serious damages caused by capitalism to the environment (Martínez-Alier, 2023).

In recent decades, environmental conflicts and environmental justice have gained ground and prominence, receiving greater emphasis in academia due to their relevance and urgency. This highlights the need to analyze the studies being conducted on this theme. As these fields of Environmental Conflicts and Environmental Justice are continuously debated in society by different actors, theories, and interests, one must also ask how science has sought to identify these demands and how they are presented by the academic community.

Despite the growing number of studies on environmental conflicts and environmental justice, the literature remains analytically fragmented, characterized by a diversity of theoretical approaches,

a lack of integrated systematizations, and limited identification of research gaps and trends. A critical synthesis effort is therefore needed to understand how these fields have been articulated in scientific production. Given the connections between these fields, this study asks: **What theoretical approaches, gaps, and trends characterize the scientific production on environmental conflicts and environmental justice?** Against this background, this study investigates the theoretical approaches, analytical trends, and gaps in the scientific production on environmental conflicts and environmental justice through a systematic literature review (SLR).

To address this question, this study uses a Systematic Literature Review (SLR), combined with Content Analysis as proposed by Bardin (2016) and operationalized using Atlas.TI software (version 24), allowing for the identification of patterns, gaps, and trends in the scientific production on the theme. The study thus contributes a critical systematization of the literature, highlighting theoretical gaps and emerging trends in this research area.

Theoretical elements of the research

Theory of Environmental Conflicts

Environmental conflicts are defined as disputes involving social and political dimensions, driven by the appropriation, management, means of production, and distribution of natural resources. These conflicts stem from power relations shaping access to resources, thereby influencing decisions about their availability and use by certain social and political actors (Merlinsky, 2020). According to Temper *et al*. (2018), ecological distribution conflicts are defined as collective disputes arising from the unequal distribution of environmental impacts. Aiming to interrupt or prevent pollution and other causes of environmental damage, as well as to recover environmental losses through appeals from civil society, media, public administration, and governments, these conflicts are often expressed through social mobilizations in response to real or potential harm to the environment. The literature on environmental conflicts can be understood through different theoretical approaches, notably political ecology, ecological economics, and analyses of extractivism. These approaches converge in emphasizing that conflicts arise from power asymmetries and the unequal distribution of environmental costs and benefits, though they differ in their analytical emphases on causes, dynamics, and implications.

From the perspective of political ecology, Rincón, Martínez-Alier, and Mingorría (2019) identify a wide diversity of environmental conflicts stemming from extractivism and its megaprojects, which degrade the environment and harm the livelihoods of rural communities. Conde (2017) notes that growing demand for energy and natural resources drives sustained growth in the fossil fuel market, including in Global South countries, due to adjustments and reforms in mining structures and legislation. This perspective underscores the centrality of extractivism as a key contemporary driver of environmental conflicts, particularly in the Global South, where the expansion of megaprojects intensifies territorial and socio-environmental inequalities. Martínez-Alier (2004) notes that environmental conflicts can arise in various forms. One is what he calls "transport disputes," conflicts arising from the growing flow of materials and energy transfer, which may involve oil pipelines, gas pipelines, waterways, and highways, where there are risks of leakage or spillage of harmful substances such as oil into terrestrial or aquatic environments. According to Conde (2017), however, the triggers of environmental conflicts are often linked to social impacts on the environment, especially when they affect soil, water, and above all, the livelihoods of communities residing near

or in areas where environmental damage is most acutely felt. In light of this, Martínez-Alier (2004) outlines five types of waste and pollution-related conflicts: Toxic struggles—conflicts over the risks of discarded heavy metals; Consumer and citizen safety—conflicts over the incidence and social distribution of risks from contaminating products; Export of toxic waste (solid or liquid); Transboundary pollution; and Equal rights to carbon sinks. Although these typologies help systematize environmental conflicts, they risk oversimplifying complex, interdependent dynamics, calling for more integrative approaches that consider social, cultural, and institutional dimensions.

Environmental transformations are becoming increasingly evident as a result of unceasing human actions, bringing highly negative and even devastating consequences to the environment on a global scale throughout human history (Bertoldi, 2007). However, these harms are not distributed equally across social contexts. Areas more susceptible to crisis situations tend to be inhabited by the most vulnerable populations, which have fewer resources to absorb environmental dysfunctions (Santos, 2015). In assessing the values of natural resources and land-use decisions, Jacobs *et al*. (2016) observed the emergence of a more integrative assessment practice within global policy and scientific research. These authors advocate for an evaluation culture grounded in plurality, reflexivity, and inclusion, rejecting single-value approaches as ineffective for evaluating environmental conflicts through methodologies capable of ensuring inquiry in defense of social and environmental justice.

Despite theoretical advances, important gaps remain in the literature, including the predominance of localized case studies, limited integration between qualitative and quantitative approaches, and the need for stronger linkages between environmental conflicts and public policy formulation.

Theory of Environmental Justice

The term Environmental Justice was coined in the United States in the 1980s by Dr. Robert Bullard to describe a social movement focused on racial, ethnic, and low-income segregation, as these groups were concentrated in areas most vulnerable to environmental harm (Brinkley & Wagner, 2024). This concept became structured around key analytical dimensions, distributive, procedural, and recognition justice, which enabled a more comprehensive understanding of socio-environmental inequalities. This movement was, and remains, aligned with "environmental racism," linked to the structural inequalities examined in sociology and social history. Driven by concerns over rising pollution levels, it became clear that environmental harm caused greater suffering in communities where "people of color" predominated compared to other segments of society (Martínez-Alier, 2023). According to Mohai, Pellow, and Roberts (2009), the importance of environmental justice stems from the movement's emergence in the struggle against environmental racism, when a community feared that their lives were disproportionately exposed to risks due to their skin color or accent. In this context, where marginalized communities face harmful and disproportionate exposures, the environmental justice movement strives for a fair process committed to meaningful involvement among all people, regardless of race, nationality, gender, or social class, with the unrestricted application of laws and policies that ensure environmental balance and public health (Van Horne *et al*., 2023). Thus, environmental justice offers a normative lens for analyzing environmental conflicts, revealing that such disputes are not merely ecological but also expressions of social and political inequalities.

Environmental activism has faced growing and complex challenges concerning environmental and societal issues, largely due to increasingly audacious actions by authoritarian and power-

dominant political leaders (Nguyen-Van-Quoc *et al*., 2023). As a key tool for activists and academics confronting these challenges, the Atlas of Environmental Justice (EJAtlas), described as an online inventory of so-called "ecological distribution conflicts," is a pre-established coding system with data offering over 200 fields of action, including spatial, quantitative, and qualitative data. It enables comparative analyses of issues involving social actors in conflicts, from their mobilizations to their outcomes (Gu, 2024). Created in 2011 for systematic data collection and geolocation mapping, the project gathers participatory information on environmental conflicts worldwide (Temper *et al*., 2018), providing statistics and other descriptive data on conflict locations, as well as the characteristics and forms of mobilization of environmental defenders working toward environmental justice, while also reporting the positive and negative outcomes of their actions (Scheidel *et al*., 2020). Since then, a significant body of research has documented how conditions related to pollution and environmental contamination have disproportionately affected less privileged populations and posed health risks to these communities (Resnik, 2022).

Studies highlight the importance of environmental monitoring and gathering appropriate information on environmental conflicts and environmental justice (Cox, Arnold & Tomás, 2010). The EJAtlas, in this regard, comprises the largest database on environmental conflicts and their mobilizations, with each case documented in a standardized manner (Dell'Angelo *et al*., 2021). As of May 2024, the most frequently recorded causes of environmental conflicts are: land (1,568), water (1,139), electricity (852), crude oil (450), coal (417), gold (383), tourism services (358), industrial waste (357), domestic waste (355), and natural gas (323), drawn from a list of 68 commodities. Meanwhile, the countries with the highest number of environmental conflict records are: the United States (409), India (396), Mexico (288), China (257), and Brazil (223), from a list of 183 countries (EJAtlas, 2024). However, it is important to note that the distribution of cases in the database may reflect inequalities in information availability rather than the actual incidence of environmental conflicts (Dell'Angelo *et al*., 2021).

According to Aragão, Jacobs, and Cliquet (2016), there are five forms of justice concerning the use and valuation of natural resources: distributive justice (demanding equality in ecosystem benefits, without discrimination based on price, economic condition, property, etc.); commutative justice (advocating for equity through legal expertise, being mandatory to prevent unequal enrichment); restorative justice (requiring actions to correct possible environmental damage); retributive justice (taking into account individual conditions and capacities for a common but differentiated responsibility); and procedural justice (concerning the legitimation of procedural means for decision-making). In this same vein, Aragão, Jacobs, and Cliquet (2016) add that one of the objectives of environmental justice is to determine the limits directly dependent on justice or injustice in relation to environmental damage caused by human activity in a given area or locality.

Furthermore, Scandrett (2016) identifies a dissociation between environmental justice and climate justice: debates surrounding environmental justice emerged from the struggles of directly oppressed local communities, whereas climate justice arose from the context of a global movement. The author adds, however, that climate justice discourse has yet to achieve the same moral integrity as environmental justice. To do so, it must become rooted in the popular groups that fight against oppression, exploitation, and racism, where environmental justice has achieved greater resonance.

Indigenous lands worldwide have been devastated by extractivist activities, including deforestation, mining, and oil extraction (Urzedo, Pedrini, Hearps, Dixon, & Leeuwen, 2022). Conde (2017) corroborates this, noting that the most vulnerable Indigenous and non-Indigenous communities often bear the consequences of mineral extraction companies' actions, which leave a

trail of destruction and fuel environmental conflicts. Describing extractivism as projects designed to extract natural resources for export, Tran and Hanaček (2023) view it as an unequal process whose projects incite violence, sometimes employing brute force to dominate communities and carry out mining, deforestation, or plantation activities, thereby contaminating water and polluting the soil. Citing the 1991 "Principles of Environmental Justice" document issued by the First National People of Color Environmental Leadership Summit in Washington, D.C., Menton *et al.* (2020) highlighted the 17 principles that illustrate the broad reach of environmental justice. Among these, they defend the right of peoples to self-determination, free from any repression of their cultures or exploitation of their lands.

At the United Nations Conference on Biodiversity (COP 15) held in December 2022, 188 nations agreed to establish the "30 × 30" target, which calls for the conservation and effective management of at least 30% of the world's lands, coastal areas, and oceans by 2030 (Secretariat of the Convention on Biological Diversity, 2022). Bontempi *et al*. (2023) stress the importance of understanding the full implications of environmental conservation policies for both people and the environment: while biodiversity must be protected, the rights of native peoples to continue living near or within protected areas must also be supported and safeguarded. This is because approximately 1.65 to 1.87 million people live in protected areas, including Indigenous peoples, local communities, quilombolas, and others (Worsdell *et al*., 2020). It is precisely these vulnerable groups who, in some countries, are displaced from their communities under the pretext that they undermine sustainability, when, in fact, these populations depend on conservation and environmental balance for their own subsistence (Kopnina, 2016).

Although the literature on environmental justice has advanced significantly, challenges persist regarding the integration of local and global scales, the effective incorporation of these approaches into public policies, and the expansion of comparative empirical studies across different regional contexts. Thus, environmental conflicts and environmental justice constitute interdependent fields of analysis: conflicts empirically reveal socio-environmental inequalities, while environmental justice provides the normative framework for their interpretation. This articulation is essential for understanding the trends and gaps in scientific production on the topic.

Methodological elements of the research

Systematic Literature Reviews (SLR) constitute a rigorous methodology that enables the synthesis and critical analysis of existing scientific knowledge on a given topic, drawing on secondary data from the literature to answer specific research questions (Kraus *et al*., 2020). The SLR is a methodology designed to ensure a more transparent and systematic review process (Xia, Li, Zhou, Zhang & Fu, 2024), employing literary sources to investigate a specific topic and examining evidence correlated with a particular intervention strategy. It applies methods that systematically highlight the search for critical analysis based on a curated set of selected information (Sampaio & Mancini, 2007).

According to Snyder (2019), the SLR is essential to research production across all disciplines, as this tool represents one of the main methodological approaches for synthesizing scientific knowledge (Kraus, Breier, & Dasí-Rodríguez, 2020). Scholars also underscore the value of a well-conducted SLR, as it can support decision-making by policymakers and business leaders, helping researchers synthesize the literature under analysis.

To achieve the general objective of this research, to analyze how scientific production has addressed environmental conflicts and environmental justice, complementary methodological

procedures were adopted: (a) the PRISMA protocol to guide the search and selection of studies, and (b) Bardin's Content Analysis (2016) for data processing and interpretation. The research is exploratory-descriptive with a qualitative approach, structured by adapting the five directions proposed by Williams *et al*. (2021) for a Systematic Literature Review into a four-stage process: (1) Search, (2) Coding, (3) Analysis, and (4) Reporting.

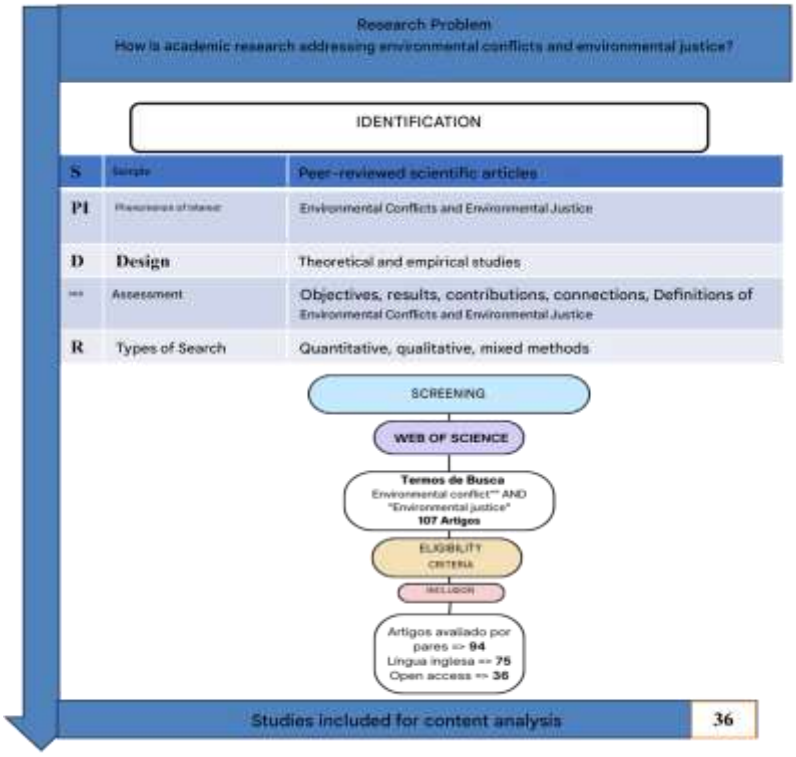
In the coding and analysis stage, Atlas.ti software (version 24) was used to organize documents, systematize codes, and construct analytical categories. From this process, six thematic categories emerged that guided the interpretation of results: (i) environmental conflicts and political ecology; (ii) environmental justice, inequalities, and social vulnerability; (iii) gender, intersectionality, and violence; (iv) knowledge, participation, and coproduction; (v) strategies of resistance and social mobilization; and (vi) transitions, development, and critiques of the economic model. These categories enabled the identification of patterns, gaps, and trends in the analyzed literature, contributing to a more structured and in-depth understanding of the field.

Figure 1. Method Approach

Source: Prepared by the authors (2024).

Before the search phase, a methodological plan was developed to define the guiding question, objective, keywords, and inclusion criteria for the articles. The *Preferred Reporting Items for Systematic Reviews and Meta-Analysis* (PRISMA) protocol, a guide and checklist for conducting systematic reviews and meta-analyses (Moher *et al*., 2009), was adopted; as well as the SPIDER tool, a research strategy framework composed of Sample, Phenomenon of Interest, Design, Evaluation, and Research (Cooke, Smith & Booth, 2012), to improve the reliability and transparency of this process. Figure 2 presents the entire methodological design.

Figure 2. Methodological Design**.**



Source: Prepared by the authors (2024).

The search was conducted on April 18, 2024, in the Web of Science database, using the query "*environmental conflict**" AND "*environmental justice*" across topics, titles, abstracts, and keywords. No temporal delimitation was established, allowing the inclusion of all studies available up to the search date. Inclusion criteria followed the SPIDER framework, requiring full articles in English, while exclusion criteria included: (1) articles that did not discuss or connect both Environmental Conflicts and Environmental Justice; (2) articles addressing only one of the themes in isolation; and (3) articles available in the *Web of Science* database with open access provided by the Capes consortium or via Google Scholar.

The documents comprising this review are articles published in scientific journals. Works presented at conferences or similar events, as well as research not in article format, were excluded. Notably, the analyzed documents were available exclusively in English. These constitute the context units that, according to Bardin (2016), help shape the content analysis applied in this research.

The study followed Bardin's (2016) guidelines, considering three chronological phases: Pre-analysis, Material exploration, and Result processing.

Following the abstract review of the 36 initially identified articles, 10 were excluded for not meeting the eligibility criteria, as they did not align with the objective of this study. This resulted in 26 articles considered eligible based on their abstracts. However, upon full-text reading, an additional 5 articles were removed for incompatibility with the scope of this research. Thus, this systematic review ultimately included 21 articles for content analysis.

Atlas.ti software (version 24) was used to organize the data and carry out the coding, categorization, and interpretation stages, as proposed by Bardin (2016). To ensure the reliability of the analytical process, systematic categorization criteria were adopted, drawing on thematic

categories derived from the literature and refined throughout the analysis.

Presentation and discussion of the results.

The PRISMA method was applied to survey articles in the *Web of Science* database. Following the reading of full texts, articles most compatible with the scope of this research were selected. Drawing on the PRISMA framework, analyses were conducted to identify patterns, theoretical approaches, and contributions of the selected studies, with the aim of constructing a critical synthesis of the literature.

The analysis of the 21 articles yielded six central theoretical-analytical categories that consistently organize the field:

The first category, *environmental conflicts and political ecology*, constitutes the dominant theoretical core of the analyzed scientific production. Studies by Dell'Angelo *et al*. (2021), Pérez-Rincón *et al*. (2019), Rincón et al. (2019), Kowszyk et al. (2023), Hanaček *et al*. (2022), and Ertör and Ortega-Cerdà (2015) converge in understanding the field as arising from power asymmetries, embedded in the dynamics of global capitalism, and closely linked to the advance of extractivist activities and territorial expansion. From this perspective, conflicts are often interpreted as expressions of social metabolism, involving disputes over energy and material flows, the appropriation of common goods, and the expansion of economic frontiers, consistent with Martínez-Alier's theoretical framework. The centrality of extractivism, particularly mining, fossil fuels, and agribusiness, emerges as a structuring axis of contemporary environmental conflicts. Another key finding is that conflicts are understood not merely as environmental impacts but as processes encompassing social mobilization, organized resistance, and symbolic and political struggles. Despite this analytical depth, a notable gap remains in the limited explicit theoretical articulation between political ecology and environmental justice, which are often treated as parallel rather than integrated fields.

The second category, *environmental justice, inequalities, and social vulnerability*, shifts the analytical focus from natural resources to the actors affected by environmental conflicts. Studies by Perlingeiro and Schmidt (2023), Bontempi *et al.* (2023), Santos *et al*. (2022), Anaya and Espírito-Santo (2018), and Scheidel *et al*. (2023) demonstrate that environmental impacts are socially selective, disproportionately burdening vulnerable populations—including Indigenous peoples, traditional communities, and peripheral groups—thereby empirically substantiating the concept of environmental injustice. The institutional and legal dimension of conflicts also stands out, particularly the fragilities of governance systems and the growing judicialization of environmental disputes. Another key finding concerns the critical examination of conservation policies: protected areas can generate territorial exclusion and exacerbate social conflicts, challenging the notion of conservation as a neutral solution. A notable limitation, however, is the limited empirical application of environmental justice's core dimensions, distributive, procedural, and recognition justice, which is often invoked as a normative principle rather than deployed as a structured analytical framework.

The third category, *gender, intersectionality, and violence*, represents an emerging yet essential approach for deepening the analytical scope of the field. Studies by Tran (2021) and Tran and Hanaček (2023) demonstrate that environmental conflicts are shaped by multiple social markers, including gender, race, and class, revealing that their impacts are far from homogeneous. These works underscore the centrality of intersectionality as an analytical lens, as well as the various forms of violence—physical, symbolic, and structural—endured by women environmental defenders. They

also bring to the fore the leadership of women in resistance processes and in the construction of new political and cultural narratives. Nevertheless, this approach remains underrepresented in the literature and remains poorly integrated with the more established perspectives of political ecology and environmental justice.

The fourth category, *knowledge, participation, and coproduction,* highlights a significant shift in how environmental conflicts are understood, redirecting attention toward the processes of knowledge production and utilization. Studies by Jacobs *et al*. (2016), Conde and Walter (2022), and Facchinelli *et al*. (2022) critique traditional technocratic approaches and advocate for integrating multiple forms of knowledge, including local and traditional knowledge. The coproduction of knowledge among scientists, communities, and social movements is presented as a key strategy for addressing power asymmetries and advancing environmental justice, signaling a trend toward the decolonization of knowledge. In this context, citizen science initiatives and participatory mapping emerge as relevant tools for social empowerment. Nevertheless, evidence regarding the tangible impact of these approaches on transforming public policies and decision-making processes remains scarce.

The fifth category, *strategies of resistance and social mobilization*, highlights the diverse forms of collective action in environmental conflicts. Studies by Scheidel *et al*. (2020), Sanz and Rodríguez-Labajos (2021), and Dell'Angelo *et al*. (2021) demonstrate that resistance strategies encompass protests, legal actions, transnational networking, and the use of art as a political instrument and a means of symbolic mobilization. Environmental defenders are recognized as key actors in advancing environmental justice, even though they frequently face significant risks, including criminalization and violence. Nevertheless, systematic analyses of the effectiveness of these strategies remain absent, as do cross-context comparisons, which limit our understanding of their outcomes.

Finally, the sixth category *transitions, development, and critiques of the economic model* brings together studies that challenge dominant development paradigms. Works by Gu (2024), Dunlap and Laratte (2022), and Rodríguez-Labajos *et al*. (2019) critique the notion of "green growth," demonstrating that energy transition processes can reproduce or even intensify socio-environmental inequalities. These studies underscore that even initiatives widely regarded as sustainable can generate new conflicts, particularly in the context of energy infrastructure deployment. In this landscape, alternative frameworks emerge, such as degrowth and post-extractivism, that seek to redefine the foundations of economic development. Yet these approaches remain empirically underdeveloped and poorly articulated with concrete public policies.

In summary, the findings of this systematic review reveal three major analytical trends: the predominance of political ecology as a central theoretical framework, the expansion of environmental justice, albeit with operational weaknesses, and the emergence of new research agendas, including intersectionality, knowledge coproduction, and critiques of the development model. Despite these advances, the field remains theoretically fragmented, poorly integrated across approaches, and weakly articulated with public policy, creating significant gaps and opportunities for future research.

The alignment between the analytical categories identified and the theoretical contributions presented enables a deeper understanding of the structure and evolving trends of the field of environmental conflicts and environmental justice, shedding light on both theoretical convergences and persistent gaps.

Within the category "*Environmental conflicts and political ecology*," the contributions of Dell'Angelo *et al*. (2021), Pérez-Rincón *et al*. (2019), Rincón *et al*. (2019), Kowszyk *et al*. (2023), Hanaček et al. (2022), and Ertör and Ortega-Cerdà (2015) feature prominently. As shown in Table 2,

these studies draw on structural approaches that articulate concepts such as common goods, extractivism, social metabolism, and power asymmetries. Dell'Angelo *et al*. (2021), grounded in both Ostrom and Marxist traditions, reinforce the understanding of conflicts as stemming from the unequal appropriation of resources. Pérez-Rincón *et al*. (2019) complement this by introducing the debate on post-extractivism, expanding the analysis to include alternatives to the dominant model. Kowszyk *et al*. (2023) and Hanaček *et al*. (2022) further underscore the centrality of power asymmetries and conflicts in strategic territories, particularly in extractive contexts. This category thus establishes itself as the dominant theoretical framework, demonstrating that environmental conflicts are intrinsically tied to the dynamics of global capitalism, yet remain in need of more explicit integration with the environmental justice framework.

In the category "*Environmental justice, inequalities, and social vulnerability*," the contributions of Perlingeiro and Schmidt (2023), Bontempi *et al*. (2023), Santos *et al*. (2022), Anaya and Espírito-Santo (2018), and Scheidel et al. (2023) reveal an analytical shift toward the affected subjects. Perlingeiro and Schmidt (2023) underscore the institutional and legal shortcomings of environmental justice, reinforcing the procedural dimension and the growing judicialization of conflicts. Bontempi *et al*. (2023) and Anaya and Espírito-Santo (2018) critically examine environmental conservation, showing that protected areas can generate territorial exclusion and thus challenge the notion of sustainability as a neutral solution. Scheidel *et al*. (2023) and Santos *et al*. (2022), by contrast, emphasize the unequal distribution of impacts, particularly on Indigenous peoples and traditional communities, thereby empirically substantiating the concept of environmental injustice. Nevertheless, as the theoretical contributions indicate, environmental justice continues to be treated predominantly as a normative principle, with limited operationalization of its core analytical dimensions.

The category "*Gender, intersectionality, and violence*" draws direct support from the contributions of Tran (2021) and Tran (2023), who introduce feminist political ecology and ecofeminism as essential analytical lenses. These approaches deepen the understanding of environmental conflicts by revealing that inequalities are shaped by gender, race, and class. The contributions highlight the violence targeting women environmental defenders and their central role in mobilizations, thereby reinforcing the importance of intersectionality. Nevertheless, the analysis shows that this theme remains underrepresented in the literature and remains weakly integrated into the broader frameworks of political ecology and environmental justice.

Regarding the category "*Knowledge, participation, and coproduction*," the contributions of Jacobs *et al*. (2016), Conde and Walter (2022), and Facchinelli *et al*. (2022) mount a consistent critique of dominant technical knowledge. Jacobs *et al*. (2016) advocate for an evaluation culture grounded in plurality, reflexivity, and inclusion, while Conde and Walter (2022) emphasize knowledge coproduction as a strategy to challenge power relations. Facchinelli *et al*. (2022), for their part, highlight the role of citizen science in fostering community empowerment. Together, these contributions signal a trend toward the decolonization of knowledge, yet they continue to face limitations in terms of impact assessment and integration with public policies.

The category "*Strategies of resistance and social mobilization*" draws on the contributions of Scheidel *et al*. (2020), Sanz and Rodríguez-Labajos (2021), and Dell'Angelo et al. (2021). Scheidel *et al*. underscore the central role of environmental defenders worldwide, while Sanz and Rodríguez-Labajos (2021) introduce art as a strategic tool for mobilization and cultural transformation. Dell'Angelo *et al*. (2021) further emphasize the importance of collective resistance against resource appropriation. Taken together, these contributions reveal the diversity of strategies employed in

environmental conflicts, yet significant gaps persist regarding the measurement of their effectiveness and the systematic comparison of strategies across different contexts.

Finally, the category "*Transitions, development, and critiques of the economic model*" brings together the contributions of Gu (2024), Dunlap and Laratte (2022), and Rodríguez-Labajos *et al*. (2019). Gu (2024) demonstrates that the energy transition, while necessary, also generates conflicts and reproduces inequalities, particularly when local perspectives are overlooked. Dunlap and Laratte (2022) deepen this critique by examining green necropolitics and the limits of "green growth." Rodríguez-Labajos *et al*. (2019), in turn, introduce the degrowth debate and its tensions with environmental justice, especially in the Global South. Together, these contributions signal the emergence of critical agendas that challenge the dominant development model and propose alternatives such as post-extractivism.

Overall, the alignment between the analytical categories and the theoretical contributions reveals three main trends: the predominance of political ecology as an explanatory framework for conflicts, the expansion of environmental justice, albeit with analytical weaknesses, and the emergence of new agendas, including gender, knowledge coproduction, and degrowth, which broaden and deepen the debate. These findings underscore the field's interdisciplinary and consolidating character, while also pointing to the need for greater theoretical integration across its diverse approaches.

Final Considerations

This study demonstrated that scientific production on environmental conflicts and environmental justice is predominantly structured by political ecology, which interprets conflicts as expressions of power asymmetries, the advance of extractivism, and the dynamics of global capitalism. In complementary fashion, environmental justice has consolidated itself as an interpretative axis, albeit often mobilized as a normative principle with limited analytical operationalization. The identified trends point toward the incorporation of new agendas, including intersectionality, knowledge coproduction, resistance strategies, and critiques of the development model, particularly in the context of energy transitions and degrowth. Nevertheless, significant gaps persist, notably the need for greater theoretical integration across approaches, deeper engagement with the analytical dimensions of environmental justice (distributive, procedural, and recognition), and the expansion of empirical research.

Regarding the main findings of the coding and content analysis, operationalized using Atlas,ti, six analytical categories were identified that structure the field: (i) environmental conflicts and political ecology as the dominant axis; (ii) environmental justice and social inequalities, with a focus on vulnerable groups; (iii) gender, intersectionality, and violence, still an emerging theme; (iv) knowledge, participation, and coproduction, highlighting the valuation of plural knowledges; (v) strategies of resistance and social mobilization, characterized by diverse forms of action; and (vi) transitions and critiques of the economic model, particularly in the context of the energy transition. Taken together, these results reveal an interdisciplinary, dynamic, and expanding field that remains in the process of analytical consolidation.

The studies analyzed also reveal important advances through the incorporation of innovative approaches, such as citizen science in the Amazon rainforest, where participatory mapping of gas flaring strengthens community engagement and enhances political influence on environmental and climate justice issues. Alliances between scientists and local groups further stand out, evidencing

knowledge coproduction processes that challenge the hegemony of technical expertise and colonial power dynamics. Parallel to this, critical debates on the development model are gaining traction, particularly at the intersection of environmental justice and degrowth, alongside analyses of conflicts linked to extractivist projects that have significant impacts on Indigenous territories and strategic regions such as the Arctic. These findings underscore the field's complexity and the need to advance new research agendas.

Regarding limitations, the reliance on a single database and the delimitation of keywords stand out, as these may have restricted the scope of studies analyzed. Moreover, the qualitative nature of the analysis may introduce a degree of subjectivity into the categorization and interpretation of the data. For future research, we suggest expanding the databases and adopting different systematic review methods, as well as deepening the articulation between environmental conflicts, environmental justice, and climate justice. It is also recommended that future studies more consistently integrate political ecology and ecological economics, alongside empirical investigations that operationalize the dimensions of environmental justice across different contexts.

References

Anaya, F. C., & Espírito-Santo, M. M. (2018). Protected areas and territorial exclusion of traditional communities: Analyzing the social impacts of environmental compensation strategies in Brazil. Ecology and Society, 23(1). https://doi.org/10.5751/ES-09850-230108

Aragão, A., Jacobs, S., & Cliquet, A. (2016). What's law got to do with it? Why environmental justice is essential to ecosystem service valuation. Ecosystem Services, 22, 221–227. https://doi.org/10.1016/j.ecoser.2016.09.012

Atlas Global de Justiça Ambiental - EJAtlas. (2024). https://ejatlas.org/.

Bardin, L. (2016). Análise de conteúdo. São Paulo, SP: Edições 70.

Bertoldi, M. R. (2007). O direito humano a um meio ambiente equilibrado. Jus Navigandi, 5, 1–18. http://egov.ufsc.br/portal/sites/default/files/anexos/26472-26474-1-PB.pdf

Bontempi, A., Venturi, P., Del Bene, D., Scheidel, A., Zaldo-Aubanell, Q., & Zaragoza, R. M. (2023). Conflict and conservation: On the role of protected areas for environmental justice. Global Environmental Change, 82(August), 102740. https://doi.org/10.1016/j.gloenvcha.2023.102740

Brinkley, C., & Wagner, J. (2024). Who Is Planning for Environmental Justice—and How? Journal of the American Planning Association, 90(1), 63–76. https://doi.org/10.1080/01944363.2022.2118155

Broto, V. C., & Baker, L. (2018). Spatial adventures in energy studies: An introduction to the special issue. Energy Research and Social Science, 36(November 2017), 1–10. https://doi.org/10.1016/j.erss.2017.11.002

Conde, M. (2017). Resistance to mining: A review. Ecological Economics, 132, 80–90.

https://doi.org/10.1016/j.ecolecon.2016.08.025

Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: The SPIDER tool for qualitative evidence synthesis. Qualitative Health Research, 22(10), 1435–1443. https://doi.org/10.1177/1049732312452938

Cox, M., Arnold, G., & Tomás, S. V. (2010). A review of design principles for community-based natural resource management. Ecology and Society, 15(4). https://doi.org/10.5751/ES-03704-150438

Dell'Angelo, J., Navas, G., Witteman, M., D'Alisa, G., Scheidel, A., & Temper, L. (2021). Commons grabbing and agribusiness: Violence, resistance and social mobilization. Ecological Economics, 184, 107004. https://doi.org/10.1016/j.ecolecon.2021.107004

Dunlap, A., & Laratte, L. (2022). European Green Deal necropolitics: Exploring 'green' energy transition, degrowth & infrastructural colonization. Political Geography, 97(March). https://doi.org/10.1016/j.polgeo.2022.102640

Ertör, I., & Ortega-Cerdà, M. (2015). Political lessons from early warnings: Marine finfish aquaculture conflicts in Europe. Marine Policy, 51, 202–210. https://doi.org/10.1016/j.marpol.2014.07.018

Facchinelli, F., Pappalardo, S. E., Della Fera, G., Crescini, E., Codato, D., Diantini, A. .De Marchi, M. (2022). Extreme citizens science for climate justice: Linking pixel to people for mapping gas flaring in Amazon rainforest. Environmental Research Letters, 17(2). https://doi.org/10.1088/1748-9326/ac40af

Gu, B. (2024). Black gold and green BRI–A grounded analysis of Chinese investment in coal-fired power plants in Indonesia. Extractive Industries and Society, 17(January), 101411. https://doi.org/10.1016/j.exis.2024.101411

Hanaček, K., Kröger, M., Scheidel, A., Rojas, F., & Martinez-Alier, J. (2022). On thin ice – The Arctic commodity extraction frontier and environmental conflicts. Ecological Economics, 191(September 2021). https://doi.org/10.1016/j.ecolecon.2021.107247

Jacobs, S., Dendoncker, N., Martín-López, B., Barton, D. N., Gomez-Baggethun, E., Boeraeve, F. Washbourn, C. L. (2016). A new valuation school: Integrating diverse values of nature in resource and land use decisions. Ecosystem Services, 22(December), 213–220. https://doi.org/10.1016/j.ecoser.2016.11.007

Kopnina, H. (2016). Half the earth for people (or more)? Addressing ethical questions in conservation. Biological Conservation, 203, 176–185. https://doi.org/10.1016/j.biocon.2016.09.019

Kowszyk, Y., Vanclay, F., & Maher, R. (2023). Conflict management in the extractive industries: A comparison of four mining projects in Latin America. Extractive Industries and Society, 13(September 2022), 101161. https://doi.org/10.1016/j.exis.2022.101161

Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2020). The art of crafting a systematic literature review in entrepreneurship research. International Entrepreneurship and Management Journal, 16(3), 1023–1042. https://doi.org/10.1007/s11365-020-00635-4

Liu, J., Clark, L. P., Bechle, M. J., Hajat, A., Kim, S. Y., Robinson, A. L. ... Marshall, J. D. (2021). Disparities in Air Pollution Exposure in the United States by Race/Ethnicity and Income, 1990-2010. Environmental Health Perspectives, 129(12), 1–14. https://doi.org/10.1289/EHP8584

Martinez-Alier, J., Anguelovski, I., Bond, P., Del Bene, D., Demaria, F., Gerber, J. F. ... Yánez, I. (2014). Between activism and science: grassroots concepts for sustainability coined by Environmental Justice Organizations. Journal of Political Ecology, 21(1), 19-60. https://doi.org/10.2458/v21i1.21124.

Martinez-Alier, J. (2023). Environmental conflicts and the making of world movements for environmental justice. Economia Politica, 40(3), 765-779. https://doi.org/10.1007/s40888-023-00306-x.

Martinez-Alier, J. (2004). Los conflictos ecológico- distributivos y los indicadores de sustentabilidad. Revista Iberoamericana de Economia Ecológica (REVIBEC), 1, 21–30. http://www.redibec.org/archivos/revista/articulo7.pdf

Menton, M., Larrea, C., Latorre, S., Martinez-Alier, J., Peck, M. ... Walter, M. (2020). Environmental justice and the SDGs: from synergies to gaps and contradictions. Sustainability Science, 15(6), 1621–1636. https://doi.org/10.1007/s11625-020-00789-8

Merlinsky, M. G. (2020). La productividad de los conflictos ambientales y su aporte para la innovación social. Agrociencia, 24(NE1), 1–12. https://doi.org/10.31285/AGRO.24.358

Mohai, P., Pellow, D., & Roberts, J. T. (2009). Environmental justice. Annual Review of Environment and Resources, 34, 405–430. https://doi.org/10.1146/annurev-environ-082508-094348

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., Altman, D., Antes, G. ... Tugwell, P. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement (Chinese edition). Journal of integrative medicine, 7(9), 889-896. https://doi.org/10.1371/journal.pmed.1000097.

Nguyen, V. K., Kahana, A., Heidt, J., Polemi, K., Kvasnicka, J., Jolliet, O., & Colacino, J. A. (2020). A comprehensive analysis of racial disparities in chemical biomarker concentrations in United States women, 1999–2014. Environment International, 137(February), 105496. https://doi.org/10.1016/j.envint.2020.105496

Pérez-Rincón, M., Vargas-Morales, J., & Martinez-Alier, J. (2019). Mapping and Analyzing Ecological Distribution Conflicts in Andean Countries. Ecological Economics, 157(August 2018), 80–91. https://doi.org/10.1016/j.ecolecon.2018.11.004

Perlingeiro, R., & Schmidt, L. S. (2023). An Overview of Environmental Justice in Brazil. British Journal of American Legal Studies, 12(1), 27–50. https://doi.org/10.2478/bjals-2023-0003

Resnik, D. B. (2022). Environmental justice and climate change policies. Bioethics, 36(7), 735–741. https://doi.org/10.1111/bioe.13042

Rincón, V. R., Martínez-Alier, J., & Mingorria, S. (2019). Environmental conflicts related to urban expansion involving agrarian communities in Central Mexico. Sustainability (Switzerland), 11(23), 1–19. https://doi.org/10.3390/su11236545

Rodríguez-Labajos, B., Yánez, I., Bond, P., Greyl, L., Munguti, S., Ojo, G. U., & Overbeek, W. (2019). Not So Natural an Alliance? Degrowth and Environmental Justice Movements in the Global South. Ecological Economics, 157(August 2018), 175–184. https://doi.org/10.1016/j.ecolecon.2018.11.007

Sampaio, R. F., & Mancini, M. C. (2007). Systematic review studies: a guide for careful synthesis of scientific evidence. Brazilian Journal of Physical Therapy, 11, 83-89. https://doi.org/10.1590/S1413-35552007000100013.

Santos, M. O. S. Dos, Santos, C. P. S., Alves, M. J. C. F., Gonçalves, J. E., & Gurgel, I. G. D. (2022). Oil in Northeast Brazil: mapping conflicts and impacts of the largest disaster on the country's coast. Anais Da Academia Brasileira de Ciências, 94(suppl 2), 1–17. https://doi.org/10.1590/0001-3765202220220014

Santos, J. de O. (2015). Relação entre fragilidade ambiental e vulnerabilidade social na susceptibilidade aos riscos. Mercator, 14(02), 75–90. http://www.mercator.ufc.br/index.php/mercator/article/view/1650/587

Sanz, T., & Rodriguez-Labajos, B. (2021). Does artistic activism change anything? Strategic and transformative effects of arts in anti-coal struggles in Oakland, CA. Geoforum, 122, 41–54. https://doi.org/10.1016/j.geoforum.2021.03.010

Scandrett, E. (2016). Climate justice: contested discourse and social transformation. International Journal of Climate Change Strategies and Management, 8(4), 477–487. https://doi.org/10.1108/IJCCSM-05-2015-0060

Scheidel, A., Del Bene, D., Liu, J., Navas, G., Mingorría, S., Demaria, F. ... Martínez-Alier, J. (2020). Environmental conflicts and defenders: A global overview. Global Environmental Change, 63(May). https://doi.org/10.1016/j.gloenvcha.2020.102104

Scheidel, A., Fernández-Llamazares, Á., Bara, A. H., Del Bene, D., David-Chavez, D. M., Fanari, E. ... Whyte, K. P. (2023). Global impacts of extractive and industrial development projects on Indigenous Peoples' lifeways, lands, and rights. Science advances, 9(23), eade9557. DOI: 10.1126/sciadv.ade9557.

Secretariat of the Convention on Biological Diversity. COP15: (2022). nations adopt four goals, 23 targets for 2030 in landmark UN Biodiversity agreement. In: Convention on Biological Diversity. https://www.unep.org/un-biodiversity-conference-cop-15.

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. Journal of Business Research, 104(March), 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Temper, L., Demaria, F., Scheidel, A., Del Bene, D., & Martinez-Alier, J. (2018). The Global Environmental Justice Atlas (EJAtlas): ecological distribution conflicts as forces for sustainability. Sustainability Science, 13(3), 573–584. https://doi.org/10.1007/s11625-018-0563-4

Tran, D., & Hanaček, K. (2023). A global analysis of violence against women defenders in environmental conflicts. Nature Sustainability, 6(9), 1045–1053. https://doi.org/10.1038/s41893-023-01126-4

Tran, D. (2021). A comparative study of women environmental defenders' antiviolent success strategies. Geoforum, 126, 126-138. https://doi.org/10.1016/j.geoforum.2021.07.024.

Urzedo, D., Pedrini, S., Hearps, C., Dixon, K., & van Leeuwen, S. (2022). Indigenous environmental justice through coproduction of mining restoration supply chains in Australia. Restoration Ecology, 30(S1), 1–7. https://doi.org/10.1111/rec.13748

Van Horne, Y. O., Alcala, C. S., Peltier, R. E., Quintana, P. J., Seto, E., Gonzales, M. Beamer, P. I. (2023). An applied environmental justice framework for exposure science. Journal of exposure science & environmental epidemiology, 33(1), 1-11. https://doi.org/10.1038/s41370-022-00422-z.

Williams, R. I., Clark, L. A., Clark, W. R., & Raffo, D. M. (2021). Re-examining systematic literature review in management research: Additional benefits and execution protocols. European Management Journal, 39(4), 521–533. https://doi.org/10.1016/j.emj.2020.09.007

Worsdell, T., Kumar, K., Allan, J. R., Gibbon, G. E. M., White, A., Khare, A., & Frechette, A. (2020). Rights-Based Conservation: The path to preserving Earth's biological and cultural diversity? UvA-DARE (Digital Academic Repository. https://doi.org/10.13140/RG.2.2.17198.95042

Xia, L., Li, K., Zhou, T., Zhang, L., & Fu, W. (2024). User oriented smart connected product and smart environment: a systematic literature review. International Journal of Advanced Manufacturing Technology, 130(3–4), 1017–1038. https://doi.org/10.1007/s00170-023-12725-y