

Just Transition

Understanding and Implementation

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Context and objectives

The transition to a sustainable future presents deeply intertwined ecological and social challenges. As societies seek equitable and inclusive pathways toward sustainability, a Just Transition (JT) aims to: (1) ensure that vulnerable populations are not unjustifiably burdened by decarbonization and transition efforts, (2) address injustices that emerge from differentiated responsibilities, and (3) prevent the exacerbation of existing injustices. Due to its growing use, JT is a polysemic concept. Its definition and implementation are subject to important debate among academic researchers, professional groups, and policymakers. This literature review provides an overview of the JT concept by synthesizing academic and grey literature from a European perspective, with the goal of offering a theoretical foundation for future JT research. It also draws on examples of the implementation of JT in several European contexts, including Switzerland.

Results

Literature on JT highlights significant differences in the understandings and interpretations of both the concept of justice (in terms of how justice is conceptualised) and of the transition (in terms of the goals and strategies adopted). These differ greatly according to actor group and the function of JT (theoretical, political or activist). They also vary in terms of the types of justice mobilised (such as distributive, procedural, recognition and restorative justice) which provide distinct lenses to evaluate transition policies, as well as in terms of the domain-specific approaches to which justice is applied (including climate, energy and environmental justice). Understandings and interpretations of JT thus vary according to thematic focus (e.g. sector-specific, labour focused, whole environment, etc.), scale (national, local, global), who is included in justice considerations (e.g. workers, communities, humans, non-humans), the injustices addressed (pre-existing structural injustices, injustices of cause, environmental risks, injustices linked to the process of transition), the intended level of change (managerial approaches and status quo compared to transformational change), the breadth of the approach (ranging from parsimonious to holistic approaches) and level of public intervention (the level of responsibility assigned to government bodies). Such variations in the understanding and interpretation of JT reflects deeper normative differences in terms of what is considered fair and morally acceptable in society.

Policy implications and challenges

Furthermore, policy development and implementation are highly context-dependent, influenced by national and subnational governance structures, sectoral priorities, and regional socio-economic conditions. Reviews of existing policies across Europe and beyond reveal a diversity in how JT ideas manifest in policies, including both broad, overarching frameworks and targeted sector-specific strategies. Common challenges for implementation include multi-level governance, the need to strengthen social support mechanisms, and the need for proactive, participatory, and accountable measures to ensure equitable outcomes for workers, communities, and local governments. Future empirical, inter- and trans-disciplinary research is needed to better understand the realities and mechanisms for the implementation of a JT.

Résumé en français

La transition vers un avenir plus durable présente des défis écologiques et sociaux profondément liés entre eux. Alors que les sociétés tentent de trouver des voies vers la durabilité qui sont à la fois équitables et inclusives, une transition juste (TJ) vise à : (1) garantir que les populations vulnérables ne soient pas injustement pénalisées par les efforts de décarbonisation et de transition, (2) remédier aux injustices qui découlent de responsabilités différenciées et (3) empêcher l'exacerbation des injustices existantes. En raison de son utilisation croissante, la TJ est un concept polysémique. Sa définition et sa mise en œuvre font l'objet d'un débat important parmi les chercheur·euses universitaires, les groupes d'expert·es et les décideur·euses politiques. Cette revue de littérature fournit un aperçu du concept de TJ en synthétisant la littérature universitaire et grise d'un point de vue européen, dans le but d'offrir une base théorique pour les futures recherches sur la TJ. Elle s'appuie également sur des exemples de mise en œuvre de la TJ dans plusieurs contextes européens, dont la Suisse.

Table of contents

Résumé en français	2
Acknowledgements	2
1. Introduction	3
2. Justifications for the need for a Just Transition	3
3. Origins and evolution of JT	4
4. Diversity in the conceptualisation of JT	6
5. Differences in how actors understand and interpret JT	6
6. Conceptual underpinnings	10
6.1. Types of justice	11
6.2. Domain-specific approaches to justice	11
6.3. New approaches to justice	13
7. Implementation of the Just Transition	13
7.1. The European Green Deal	13
7.2. Countries in Europe	14
8. Future research needed	17
9. Conclusion	18
Annexe	19
Bibliography	20
List of figures and tables	25

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1. Introduction

The concept of Just Transition (JT) is gaining traction among a diverse range of European and international actors, as well as among certain actors involved in the ecological transition in Switzerland (Durabilitas, 2024; Laurent, 2024; Stark et al., 2023). In the context of this article, JT is understood as aiming to actively address existing injustices while also ensuring that: (1) the transition to a more sustainable future is inclusive and just for all members of society, (2) differentiated responsibilities are recognised in terms of contributions to the concurrent environmental crises, and (3) transition policies and processes do not create or exacerbate injustices (Laurent, 2024; Stark et al., 2023). For readability, the singular form “Just Transition” is used throughout this overview article, however this encompasses the plural understanding of the concept which is sometimes referred to as “Just Transitions.” Here JT is related to the concept of justice, however, it is considered as distinct in that it is particularly concerned with justice in the process of the transition towards a sustainable society. Finally, in the context of this article, sustainability is interpreted from a strong sustainability perspective which seeks to ensure that “the impact of human activities stays within the ecological limits of the planet, while the basic needs and well-being of all are ensured, and equity is promoted in all of its dimensions” (Université de Lausanne, 2022, p. 8).

The increasing call for a JT stems, in part, from the understanding that ecological transition efforts, such as the decarbonisation of industries, have disproportionate impacts on sub-populations of workers, communities, and vulnerable people (Avelino et al., 2024; Wang & Lo, 2021). Furthermore, there is growing recognition that ecological crises and social injustices are heavily intertwined and mutually reinforcing. For example, populations most vulnerable to the effects of climate change living in the Global South have historically contributed the least to greenhouse gas emissions, and low-income communities often face disproportionate exposure to industrial pollution and environmental waste. This is resulting in the drive for sustainability and climate change action to be accompanied by, and aligned with, initiatives supporting social equity. Due to its growing use, the concept of the JT remains polysemic and ambiguous (Avelino et al., 2024; Wang & Lo, 2021).

Objectives: This synthesis article presents an overview of the concept of JT. It focuses on JT from a European perspective drawing on academic and grey literature in both French and English, as well as examples of the implementation of JT in the EU and several European countries, including Switzerland. It aims to offer a preliminary theor-

etical basis to contextualise future JT research. This review is by no means comprehensive. Rather, it seeks to provide a general overview of the differing understandings and interpretations of JT among actors.

Method: Separate searches were conducted in English and French to identify relevant academic and grey literature. Given the volume of JT literature, the scope of the search was limited to only include sources that explicitly referred to JT as a central concept. Of the sources identified, a total of 92 academic (n=48) and grey (n=44) sources were reviewed and included in this synthesis article. Search terms included just transition, just sustainable transition, just transformation, and just sustainable transformation. Academic databases used included Google scholar, ProQuest, and Cairn; and grey literature sources included Google, IPCC, UN Digital Library, UN iLibrary, and relevant national government websites. The identified sources were completed by additional resources (five academic sources and one grey source) from reviewers with expertise in JT and domain-specific approaches to justice. This resulted in a total of 98 sources included in the review. Additionally, a search of Swiss public policy documents (nine national and five cantonal from the Cantons of Geneva and Vaud) was conducted to provide insight into the uptake of JT in Swiss policy.

2. Justifications for the need for a Just Transition

A growing body of literature underscores numerous arguments concerning the importance of JT. First and foremost, JT is recognised as a moral imperative. This is due to the burdens of climate and ecological crises which fall disproportionately on vulnerable and disadvantaged groups (Laurent, 2024; Stark et al., 2023). Transition efforts will also have heterogenous effects across groups, producing benefits for some and increasing burdens for others (Atteridge & Strambo, 2020; Martin et al., 2020). Such benefits and burdens vary depending on who is included in justice considerations and the scope of injustices considered. For example, studies on JT for fossil fuel workers often uphold the notion that governments have a moral duty to ensure decent and green work opportunities for these workers (Pai et al., 2020). The concurrent crises of social injustices and ecological destruction are recognised as inexorably linked and thus need to be addressed simultaneously (Bourg, 2020; Méda, 2014). In this light, JT potentially present an opportunity to address existing injustices (Atteridge & Strambo, 2020). Another argument often presented

in favour of JT is the place of justice and participation as determining factors for the feasibility, legitimacy and ultimate success of transition initiatives, particularly through ensuring that such changes do not exacerbate existing social injustices (Atteridge & Strambo, 2020; Cameron et al., 2023; Malerba, 2022; Martin et al., 2020; Pai et al., 2020). Furthermore, analysing the ecological crises from a justice perspective reveals possible blind-spots in transition knowledge. For example, integrating justice considerations into the Planetary Boundaries framework results in more stringent limits compared to the biophysical tipping points of the Earth system (Rockström et al., 2023). Additionally, while often implicit in the literature, JT offers a critical analysis of the adequacy of dominant modes of contemporary environmental policymaking which have typically overlooked social injustices, as well as the political dimensions of power and structural change related to the ecological transition (Abram et al., 2022). Finally, JT has been recently portrayed as a possible solution to a political problem which can incentivise decarbonisation of industry by encouraging workers to leave carbon-dependent industries (Aklin, 2025).

3. Origins and evolution of JT

There are numerous sources in both academic and grey literature describing the origins and historical evolution of JT. Here a brief overview of the evolution of the

concept of JT, which is interwoven with its function as a policy goal, is presented to contextualise the plurality of meanings that it holds. A complete genealogy of the concept can be found in Morena et al. (2020, p. 1-31). They describe the origin and evolution of the concept in three distinct periods: emergence of the concept from the 1980s–2001, proliferation of its use from 2001-2013, and its diffusion from 2014 onwards. These phases provide structure to the brief history presented here.

The concept of JT originated from the trade union movements in the United States of America in the 1970s and 1980s (Felli & Stevis, 2014; Henry et al., 2020; Morena et al., 2020; Stevis & Felli, 2020). The roots of the concept are found in the work of Tony Mazzocchi who advocated for the elimination of jobs that were too detrimental to workers and the environment, and the creation of a fund to support workers affected by potential job losses caused by environmental regulations surrounding the cleanup of hazardous waste (Morena et al., 2020). For these reasons, several authors note the importance of acknowledging that historically JT has close ties to grassroots activism and the trade union movement, and has some links with environmental justice (McCauley & Heffron, 2018; Morena et al., 2020; Stark et al., 2023). The origins of JT as a concept are thus heavily intertwined with its activist function and as a policy goal on a sub-national scale. However, due to its origins in the trade union movement at the beginning, JT is

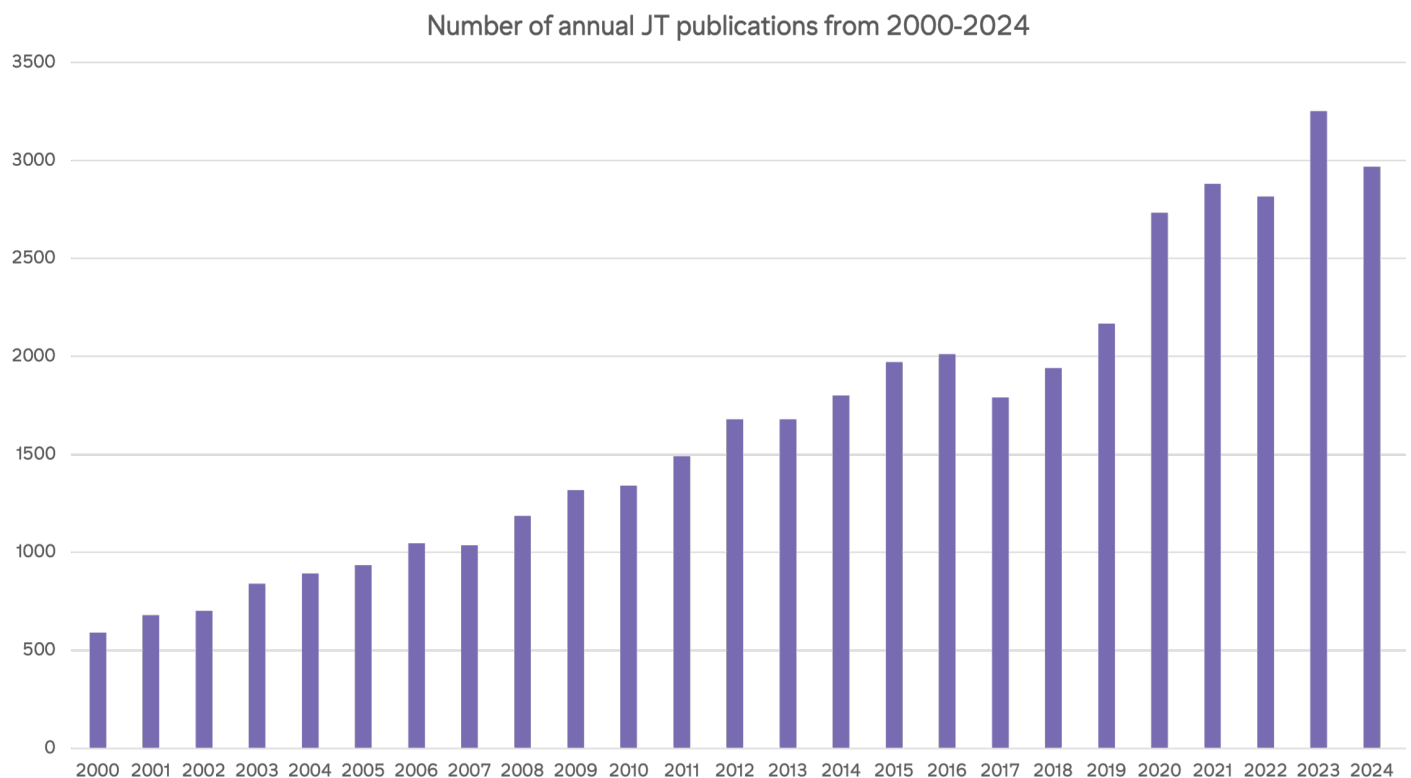


Figure 1. Number of academic articles on JT published in recent years. Made by the author with OpenAlex.

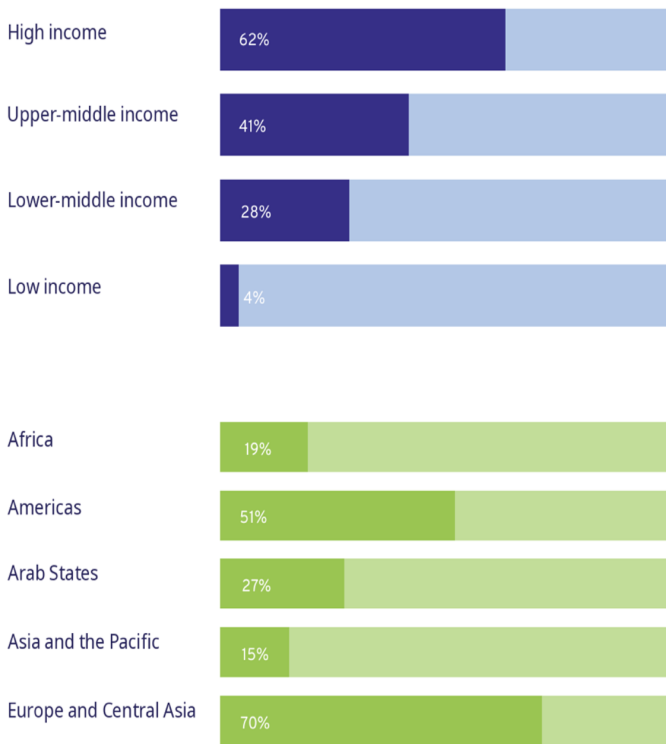


Figure 2. Explicit references to JT in Nationally Determined Contributions (3.0) according to country income level and region, from: ILO (2024b, p. 7).

considered to initially have been a concept that intended to defend the interests and rights of workers as opposed to radically challenging existing systems (Heffron, 2021; Laurent, 2024; McCauley & Heffron, 2018).

From 2001 to 2008 the use of JT by trade unions in the USA notably decreased due to the political climate at the time (Morena et al., 2020; Stevis & Felli, 2020). However, from 2001 to 2013 it began to be taken up internationally as a policy goal and integrated in various European discourses (Henry et al., 2020; Stevis & Felli, 2020). For example, national trade unions and global trade union organizations (such as the International Trade Union Confederation, ITUC) began promoting JT internationally, despite having limited power over local trade unions (Felli & Stevis, 2014; Rosenberg, 2020). Furthermore, international organisations such as the ITUC, the United Nations Environment Programme (UNEP) and the International Labour Organisation (ILO) began collaborating on the promotion of green and decent jobs as part of JT (Felli & Stevis, 2014). Importantly, the Copenhagen Climate Conference (COP15) in 2009 linked JT to climate policy (Morena et al., 2020).

In 2013 JT appeared in the work of the ILO's Governing Body, which subsequently adopted its Guidelines in 2015 (Stevis & Felli, 2020). These Guidelines now serve as one of the foundational bases for the development of JT frameworks of numerous non-government organisations and governments (Ullman & Kittner, 2024). In 2015, JT was included in the Preamble of the Paris Agreement specifically with reference to the workforce and the creation of decent work (Atteridge & Strambo, 2020; Heffron, 2021;

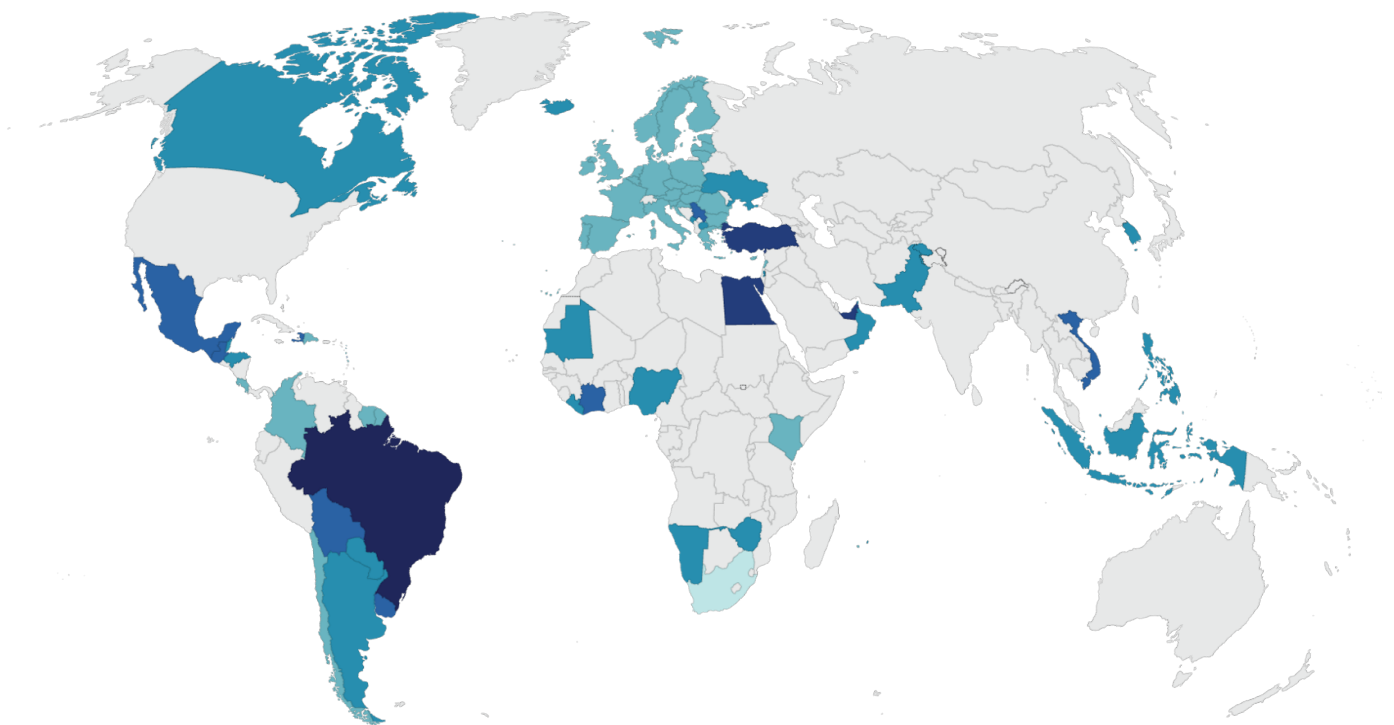


Figure 3. World map of explicit mentions of JT in Nationally Determined Contributions according to year of first mention, from: Gómez et al. (2025).

Malerba, 2022; Morena et al., 2020; Stevis & Felli, 2020). Following this, the “Solidarity and Just Transition Silesia Declaration” was adopted in 2018 during the 24th Conference of the Parties (COP; Council of the European Union, 2018). Between 2013 and 2020, JT started to become increasingly featured in climate debates at international, national and local levels and has been embraced by a wide range of actors including the UN, intergovernmental organizations, NGOs, governments, as well as indigenous and feminist groups (Morena et al., 2020). JT has also been taken up as a central aspect of the European Green Deal (EGD) which was launched in December 2019 (Dupont et al., 2024; Pianta & Lucchese, 2020; Sabato & Mandelli, 2024).

Since this time, JT continues to evolve in policy discourse and academic literature, with increasing numbers of academic articles being published in recent years (Figure 1). Simultaneously, its integration in policies and frameworks at both international and national levels continues to develop. For example, the IPCC defined elements for JT in the contribution of the Working Group III to the sixth Assessment Report on mitigation (IPCC, 2022b; See Table 1). The Just Transition Mechanism (JTM) of the European Union (EU) was implemented in 2022 to provide funding support for regions most impacted by the transition away from a carbon-intensive economy (UNDP, 2022; see Section 7.1). In recent years, JT has taken a central position in international climate discourse with the initiation and adoption of the Just Transition Work Program in COP27 (2022) and COP28 (2023) which seek to ensure just pathways to achieving the goals outlined in the Paris Agreement (Coleman, 2025; European Commission, 2024). Furthermore, numerous countries mention JT in their Nationally Determined Contributions (NDCs) (ILO, 2024b; UNDP, 2022; UNFCCC, 2025b; Figures 2 and 3). However, the majority provide limited elaboration on what JT signifies in practice (UNFCCC, 2025b).

4. Diversity in the conceptualisation of JT

It is clear when reading the JT literature that interpretations of JT are heterogenous and ambiguous with some authors labelling JT as a contested concept (Clarke & Lipsig-Mummé, 2020; Galgóczi, 2022; Moore et al., 2014; Morena et al., 2020; Stark et al., 2023; Stevis & Felli, 2020). Reviews of both academic and grey literature have highlighted that the term is polysemic with different actors having differing understandings of the concept (Fransolet

& Vanhille, 2023; Stark et al., 2023; Ullman & Kittner, 2024). There are notable differences between how academic researchers and professional groups understand and interpret the concept (Heffron & McCauley, 2018). Some authors highlight that even between academic fields, such as those working on climate, energy and environmental scholarship, the notions of both ‘transition’ and ‘justice’ are interpreted differently across and within these communities (Heffron & McCauley, 2018).

A systematic review of academic literature suggested numerous interpretations of JT (Wang and Lo, 2021). JT can be interpreted from the perspective of its historical roots where workers and labour are central or as an integrated framework of justice linking numerous types of justice and domain-specific approaches (See sections 6.1 and 6.2). From a sociotechnical perspective, the transition can be interpreted as an intertwined process between technological development and societal change, in which material aspects are emphasised, while it can also be interpreted from the perspective of governance and how the transition and (in)justice in the transition evolves within different governance structures and approaches. To illustrate the diversity of these definitions, several key definitions from academic and non-academic literature are highlighted in Table 1.

A substantial body of research interprets JT in line with the definition of McCauley and Heffron (2018) (Abram et al., 2022) who adopt an ‘integrated’ approach by bringing together three key domain-specific approaches, notably climate, environmental and energy justice (see Table 1 and section 6.2). This integrated approach is recognised by a subsequent literature review as a pivotal contribution to the evolution of the concept of JT (Pai et al., 2020). Another definition frequently referenced is that of the International Labour Organisation (ILO). In their analysis of 75 JT frameworks of non-academic actors, Ullman & Kittner (2024) found that the ILO definition was a frequent point of reference.

5. Differences in how actors understand and interpret JT

Several academic sources highlight the fact that there are important differences in how various groups of actors understand and interpret the concept of JT (Atteridge & Strambo, 2020; Heffron, 2021; Henry et al., 2020; Ullman & Kittner, 2024). For this reason, some authors prefer to refer to JT as plural (Just Transitions) as opposed to the singular (Didier, 2020).

The function JT serves when it is mobilised by a given actor may vary greatly. More precisely, JT appears to have three interlinked functions in the literature, namely as a

theoretical (academic) concept, a policy concept, and an activist concept. For example, the theoretical examination of the concept of JT by an academic author may not be the

Author	Type of source	Definition
Avelino et al. (2024)	Conceptual review of academic literature	"Processes of transformative change that (a) enable present and future generations, both human and more-than-human, to survive and flourish and (b) eliminate and prevent injustices that are produced and exacerbated by unsustainability and its underlying causes." (p. 520)
Durabilitas (2025)	Report of Swiss NGO working on JT	"JT is a process of transformation towards dignity for all within planetary boundaries. This process aims to identify, assess and reduce as much as possible the risks of transition and non-transition and places social rights and participation at the heart of environmental policies." (p. 9)
European Environmental Agency (2024)	Grey literature report on EU policies and governance of JT	"Sustainability transitions can be considered 'just' when processes of transformative change 'improve the quality of life of current and future generations, within ecological boundaries while eliminating injustices that are triggered or exacerbated by unsustainability and its underlying causes'" (p. 6)
Fransolet and Vanhille (2023)	Scientific report for the Belgian government	"A sustainability transition with social-ecological justice as its guiding principle, placing social and participatory rights at the heart of environmental policy." (p.10)
International Labour Organisation (2015, 2024)	International policy guidelines developed by the United Nations	"A JT for all towards an environmentally sustainable economy...needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty." (2015, p. 4) "A JT involves greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind. It focuses on maximizing the social and economic opportunities of climate and environmental action, while minimizing and carefully managing any challenges." (2024)
IPCC (2022b)	IPCC Assessment Report of Working Group III	"The JT framework refers to a set of principles, processes and practices aimed at ensuring that no people, workers, places, sectors, countries or regions are left behind in the move from a high-carbon to a low-carbon economy." (p. 75) "A JT entails targeted and proactive measures from governments, agencies, and other non-state authorities to ensure that any negative social, environmental, or economic impacts of economy-wide transitions are minimised, whilst benefits are maximised for those disproportionately affected." (p. 75)
McCauley and Heffron (2018)	Academic article on energy justice	"A fair and equitable process of moving towards a post-carbon society. This process must seek fairness and equity with regards to the major global justice concerns such as (but not limited to) ethnicity, income, gender within both developed and developing contexts." (p. 2)
(UNFCCC, 2025a)	International policy guidelines developed by the United Nations	"A just transition secures the future and livelihoods of workers and their communities during the transition to a low-carbon economy, effectively limiting global temperature rise to 1.5 °C above pre-industrial levels. Just transition plans should be co-created with workers and their trade unions to provide and guarantee decent work, social protection, training opportunities and job security for all workers affected by global warming and climate change policies. Plans must be underpinned by the fundamental labour rights of freedom of association and collective bargaining and facilitated through social dialogue between workers and their unions, employers and governments as established by ILO. A just transition requires guarantees for intra- and intergenerational and gender equity, racial justice, respect for the rights of Indigenous Peoples, impacted communities and migrants and promotes and protects human rights and ILO fundamental labour rights." (p. 21)

Table 1. Examples of Just Transition definitions.

same purpose as intended by NGOs or activist organisations who chose to mobilise JT as a form of critique to encourage societal change. These functions are reflected in the broad interpretations of JT which range from focuses on creating jobs in the context of green growth to critiques of capitalism through ecofeminist and post-growth perspectives. Furthermore, they illustrate differences in actors' understandings of JT as well as their political and ideological beliefs concerning the actions necessary for the ecological transition (Just Transitions Research Collaborative, 2018).

Ullman and Kittner's (2024) non-exhaustive review of 75 frameworks on JT from governments, development banks, multi-lateral institutions, think tanks, and NGOs compared the topics featured in these frameworks with previous reviews of JT frameworks in academic literature. They identified an important distinction in the scope of topics covered by non-academic JT frameworks, which focus on JT as a policy concept, when compared to academic literature. In particular, non-academic frameworks encompassed themes such as the circular economy, waste and water management, human rights, decolonisation strategies, informal labour, and small and medium enterprises, which tended to receive less attention in academic reviews. The authors of this study also suggest that their results are evidence of a lack of academic engagement with JT practice, policies and implementation (Ullman & Kittner, 2024).

In addition to the differences highlighted between non-academic and academic literature, a diverse range of understandings of JT can be found within categories of similar actors (Cigna et al., 2023). An analysis of the JT frameworks of several international organisations (the ILO, International Monetary Fund and the EGD) found that the International Monetary Fund presents JT as an opportunity for growth linked to decarbonisation through strong rhetorics of productivity and competitiveness, the EGD as a need to combine climate policy, green growth and social policy reform, and the ILO as a social welfare issue from a labour perspective (Cigna et al., 2023). This diversity of perspectives is also reflected in the labour movement. Local unions remain focused on protecting members from a labour perspective, while national and supranational unions engage with broader climate and social issues (Galgóczy, 2020).

Numerous sources have highlighted a wide range of understandings and interpretations of JT (Avelino et al., 2024; Fransolet & Laurent, 2024; Fransolet & Vanhille, 2023; Malerba, 2022; Wang & Lo, 2021). Such variation inevitably reflects important normative differences in terms of what is considered fair and morally acceptable in society. Within the academic and grey literature reviewed, under-

standings and interpretations of JT were found to vary according to: thematic focus (e.g. sector-specific, labour focused, whole environment, etc.), scale (national, local, global), who is included in justice considerations (e.g. workers, communities, humans, non-humans), the injustices addressed (pre-existing structural injustices, injustices of cause, environmental risks, injustices linked to the transition), the level of change intended (managerial approaches and status quo compared to transformational change), the breadth of the approach (ranging from parsimonious to holistic approaches) and level of public intervention (the level of responsibility assigned to government bodies).

Thematic focus: The vast majority of JT literature focuses on transitions relating to climate change policies. This often takes the form of the energy transition or decarbonisation of carbon-dependent sectors (Atteridge & Strambo, 2020; Fransolet & Vanhille, 2023; Macquarie & Green, 2023; Stark et al., 2023). While a large portion of the literature discusses the energy and mining sectors, JT are increasingly being discussed about in reference to other high-emitting sectors, such as food and agricultural systems (Stark et al., 2023). Furthermore, some authors call for the consideration of "all fronts of ecological crises" (Laurent, 2024, p. 5) addressing other environmental harms such as pollution, biodiversity loss, or ecosystem collapse (Stevis & Felli, 2020).

Scale: JT is multiscale in nature, being addressed at local, national and international levels (Galgóczy, 2022; McCauley & Heffron, 2018), with different actors focusing their efforts at different scales. JT is context specific, with unique needs, political and economic structures and definitions of JT specific to each national context or region, including what is considered just in each context (Heffron, 2021; Macquarie & Green, 2023). For example, industrial transitions typically take place at sub-national scales as these are inherently place-based, and thus closer to workers, communities and local governments (Krawchenko & Gordon, 2021). It is important to acknowledge the history of the concept to ensure that its origins in grass-roots action are not diluted through its globalisation and decontextualization (Morena et al., 2020). Finally, it is important to not displace injustices to other contexts as the far-reaching impacts of JT policies and initiatives are not bound by legal or political borders (Felli & Stevis, 2014; Stevis & Felli, 2020). Sometimes authors refer to the notion of 'cosmopolitan justice' to recognise that the harms and damage caused by environmental degradation and transition policies extend beyond national borders and are global in scope, and that justice should universally apply to all people regardless of ethnicity,

religion or country of origin (Cedergren et al., 2022; Fransolet & Vanhille, 2023; Heffron, 2021; McCauley et al., 2019).

Who is included in justice considerations: Both the academic and grey literature show that the range of individuals, groups and beings (humans and/or non-humans) considered in JT varies widely. This varies in terms of whose claims are considered legitimate within a JT (Fransolet et al., 2026). Krawchenko & Gordon (2021) identify a focus on three principal groups in the literature: jobs, environment and society. *Jobs-focused* approaches prioritise supporting workers and communities impacted by environmental and climate policies (Krawchenko & Gordon, 2021). This is aligned with the history of JT with a focus on workers and labour rights in the context of decarbonisation of one or several sectors (Clarke & Lipsig-Mummé, 2020). Here the issues considered include guaranteeing decent jobs, providing services for upskilling and retraining, early retirement and compensation programmes for job loss (Pai et al., 2020). *Environment-focused* approaches focus on evaluating transitions in terms of the potential to attain the primary objective of ecological transition (Krawchenko & Gordon, 2021). This includes, for example, guaranteeing preparedness for and adaptation to the climate risks associated with climate change, or development of new opportunities through greening of the economy (Krawchenko & Gordon, 2021). *Society-focused* approaches prioritise injustices at the scale of whole communities and social welfare policies in a broad sense (Henry et al., 2020; Krawchenko & Gordon, 2021; Malerba, 2022; McCauley & Heffron, 2018). Here, all businesses and social groups who could be impacted by the

transition are of concern, including disadvantaged and marginalised groups (Stark et al., 2023). Within this focus, some authors extend this consideration to non-humans (Fransolet & Laurent, 2024; Laurent, 2024; Stevis & Felli, 2020).

Injustices addressed: Interpretations of JT also vary in terms of the injustices that are addressed. Some interpretations of JT seek to address underlying structural injustices, while others focus on new injustices created by ecological transition policies and their implementation (Fransolet & Laurent, 2024; Henry et al., 2020; Newell & Mulvaney, 2013; Ullman & Kittner, 2024). This includes addressing major existing concerns in terms of social justice, such as: poverty, gender, income, ethnicity (IPCC, 2022; McCauley & Heffron, 2018). As Malerba (2022) highlights, reducing such structural injustices necessitates broadening the scope of JT beyond labour rights and job concerns. In addition to the context of structural injustices, several authors identify different injustices which are of concern in the JT literature (see Table 2).

Level of change intended: As can be seen in parallel in broader sustainability discourse (Hopwood et al., 2005; Richard, 2024), the literature on JT highlights that initiatives vary in terms of their ambition regarding the level of change that is targeted (Abram et al., 2022). Numerous articles provide typologies for JT initiatives based on the degree of change they target. In general, four broad categories of desired change have been identified, including: Status quo; Managerial; Structural; and Transformative (Just Transitions Research Collaborative, 2018; Laurent, 2024; see Table 3).

Injustice	Description	Sources
Unequal responsibilities	Unequal responsibilities which exist between different social groups in terms of their historical contribution to environmental degradation, and current and future responsibilities in addressing the ecological crises.	(Berthe, 2024; Duvoux & Lelièvre, 2024; Fransolet & Vanhille, 2023)
Injustices based on environmental quality	Different social groups and individuals, particularly those in disadvantaged and low socioeconomic communities, experience uneven distributions of environmental quality, including risks, harms, and benefits.	(Berthe, 2024; Duvoux & Lelièvre, 2024; Fransolet & Laurent, 2024; Fransolet & Vanhille, 2023; Mocaer & Renard, 2023)
Issues of representation and participation	Opportunities to participate in decision-making regarding the ecological transition are not proportionately available to all individuals or groups.	(Berthe, 2024; Fransolet & Vanhille, 2023; Mocaer & Renard, 2023)
Injustices between sub-groups	The impacts and benefits of ecological transition policies are differentiated across sub-groups of the population and individuals, including types of work and workers.	(Berthe, 2024; Duvoux & Lelièvre, 2024; Fransolet & Vanhille, 2023; Mocaer & Renard, 2023)

Table 2. Injustices addressed in JT literature.

Category	Description	Sources
Status quo (also referred to as affirmative)	Seek to preserve existing systems, structures and power dynamics while making adjustments to accommodate ecological limits. Such approaches have been likened to the defensive positions of those trade unions who wish to maintain the status-quo of the coal-based economy.	(Abram et al., 2022; Galgóczi, 2020; Just Transitions Research Collaborative, 2018; Laurent, 2024; Martin et al., 2020).
Managerial approaches	Aim to reduce injustices within existing systems without fundamentally changing them.	(Abram et al., 2022; Avelino et al., 2024; Bennett et al., 2019; Just Transitions Research Collaborative, 2018; Laurent, 2024; Martin et al., 2020; Stark et al., 2023; Velicu & Barca, 2020)
Structural approaches	Opportunities to participate in decision-making regarding the ecological transition are not proportionately available to all individuals or groups.	
Transformative approaches	Pursue radical, systemic change which addresses determinants of entrenched injustices, improves quality of life, and redistributes power in an equitable manner.	

Table 3. Broad categories related to levels of desired change.

According to Ciplet (2022), a transformative JT requires “explicitly anti-racist, anti-imperialist, and anti-oppressive agendas” (p. 327). Such an approach requires fundamental restructuring of social relations and institutional arrangements to address regimes of domination and hegemonic political and economic power, strengthen the legitimacy of communities experiencing injustices, address their needs, and enable them to determine and shape their own lives (Rodriguez et al., 2024). Some authors highlight the role of social-environmental conflicts and resistance to such regimes as being catalysts and central elements for transformation (Rodriguez et al., 2024). Additionally, they involve meaningful and transparent civic participation, as well as renouncing dependency on economic growth (Laurent, 2024; Velicu & Barca, 2020). Other authors, however, caution that it is important to not expect that all aspects of the ecological transition will have justice co-benefits, as this would limit the success of the JT (ADEME, 2024).

Breadth: An important divide in the debate concerns the breadth of the JT policy strategies considered. This concerns whether JT can be best achieved through targeted, sectoral policies or if they require broad, comprehensive or holistic policy frameworks (Just Transitions Research Collaborative, 2018; Laurent, 2024). Targeted policy strategies in the context of a JT for workers may include measures like retraining, implementing targeted economic development of a region, and securing public and private investment (Henry et al., 2020). ‘Holistic’ policy frameworks are considered to be those that systematically address all types of justice (distributive, procedural and res-

torative justice) across society (Ullman & Kittner, 2024). Several academic authors criticise fragmented, parsimonious policy strategies that focus solely on one aspect of injustice (Abram et al., 2022; Galgóczi, 2020). Numerous scholars highlight that achieving a JT requires long-term, strategic planning carried out at the national and sub-national levels (Pai et al., 2020). Others argue for whole-systems approaches, which allow the complexities of overlapping injustices to be addressed (Abram et al., 2022). This recognises that there is not one singular linear transition, rather they are multiple, non-linear which result from complex, dynamic interactions occurring across interdependent socio-ecological systems (Abram et al., 2022).

Level of public intervention: Finally, understandings and interpretations of JT vary regarding the level of responsibility that they assign to governments (Galgóczi, 2020). Some argue governments must be active and proactively protect workers and communities during transitions, particularly through social welfare policies (Cigna et al., 2023; Galgóczi, 2020). Contrastingly, others favour limited intervention that relies more on market-based solutions and corporate responsibility (Cigna et al., 2023).

6. Conceptual underpinnings

The understanding and interpretation of JT from a wide range of actor perspectives draws on different types of justice and domain-specific approaches. Here the types of justice, sometimes referred to in the literature as tenets of justice, can be understood as the framework or criteria used to evaluate justice within a given perspective (Mc-

Cauley et al., 2019). These include, for example, procedural and distributive justice. The domain-specific approaches refer to the application of the types of justice to a specific subject matter of concern, for example environmental justice.

6.1. Types of justice

Common points across the JT literature can be found in the types of justice used (Malerba, 2022), which have been attributed to environmental justice (Stark et al., 2023) but can similarly be found in energy justice literature (McCauley et al., 2019). How these types of justice are defined often serves as the perimeter of what is considered (un)just (Van Uffelen et al., 2024). However, they frequently require additional normative substantiation, such as through the use of principles of justice (Van Uffelen et al., 2024). The types of justice most frequently mobilised in JT literature include distributive justice, procedural justice, recognition justice and restorative justice. A brief description of each of these dimensions is summarised in Table 4. The most prominent of these types is distributive justice, followed by procedural justice, with less attention paid to recognition justice (McCauley & Heffron, 2018; Stark et al., 2023). A review of JT policies from over 60 countries revealed that dis-

tributive justice is most commonly referred to in the majority of policies (Chan et al., 2024).

6.2. Domain-specific approaches to justice

The socio-ecological justice issues addressed by JT overlap with those examined by several domain-specific approaches to justice. As such, both academic and grey literature often draw on multiple domain-specific approaches to justice to analyse JT. The most common domain-specific justice approaches identified through this review include climate justice, environmental justice and energy justice. Others that appear in the JT literature, but are not elaborated upon here include food, planetary, urban and spatial justice, among others (Avelino et al., 2024; Garvey et al., 2022). It is important to note that these domain-specific approaches to justice treat numerous issues overlapping with JT and thus are drawn on to support certain aspects of reflections and interpretations of JT. However, JT retains an important specificity as it is concerned with the realisation of justice in the process of the transition towards a sustainable society.

Climate justice is concerned with the differentiated responsibilities, vulnerabilities, risks, burdens and benefits of climate change. It is also concerned with fair distri-

Type	Description	Sources
Distributive justice (also referred to as distributional)	Ensures the allocation of resources, goods and social opportunities arising from the actions and decisions in the transition are distributed fairly and equitably to different groups within a society.	(Abram et al., 2022; Bennett et al., 2019; European Environment Agency, 2024; Fransolet & Vanhille, 2023; Krawchenko & Gordon, 2021; Martin et al., 2020; McCauley & Heffron, 2018; Pai et al., 2020; Stark et al., 2023)
Procedural justice	Ensuring the effective and meaningful participation in the decision-making process of stakeholders who are impacted by transition decisions. Concerned about inclusive, equitable and transparent participation. An important component for ensuring the legitimacy of transition efforts in the long-term.	(Abram et al., 2022; Bennett et al., 2019; European Environment Agency, 2024; Fransolet & Vanhille, 2023; Krawchenko & Gordon, 2021; Martin et al., 2020; McCauley & Heffron, 2018; Pai et al., 2020; Stark et al., 2023)
Recognition justice (also referred to as recognitional)	Acknowledgement and respect of the distinct needs, interests, rights and concerns of all groups in society. Including the consideration of the multiplicity of cultures and identities of groups, as well as the recognition of existing injustices between these groups.	(Abram et al., 2022; Bennett et al., 2019; European Environment Agency, 2024; Fransolet & Vanhille, 2023; Krawchenko & Gordon, 2021; Martin et al., 2020; Pai et al., 2020; Stark et al., 2023)
Injustices between sub-groups	Seeks to repair environmental harms, as well as harms that have been incurred by an individual or group due to non-transition, as well as transition decisions and actions.	(Abram et al., 2022; Fransolet & Vanhille, 2023; McCauley & Heffron, 2018; Pai et al., 2020)

Table 4. Types of justice most frequently mobilised in Just Transition literature.

bution of the costs of the climate transition and adaptation, as well as the remaining carbon budget, from both ethical and legal perspectives (Chan et al., 2024; Heffron & McCauley, 2018). In this respect, climate justice literature considers and weighs various allocation principles, such as present and historical responsibility for greenhouse gas emissions, the economic and technical capability of countries and other actors, and the differentiated risks, impacts and costs of climate change (Avelino et al., 2024; Chan et al., 2024; Heffron & McCauley, 2018). It also uses concepts such as the polluter-pays principle or the right to development, with a strong focus on the rights of people living in the Global South (Avelino et al., 2024; Galgóczi, 2022) and the rights of future generations (Stark et al., 2023). Climate justice is also concerned with the procedural, recognition and restorative types of justice, with arguments respectively about decision-making processes at the UNFCCC, the rights and recognition of indigenous communities, and the so-called question of loss and damage, that is the financial compensation of developing countries for the past, present and future impacts of climate change.

Environmental justice as a notion was initially used in the book *Dumping in Dixie* by Robert Bullard which was first published in 1990 (Bullard, 2000). The book presents a research study from the late 1980s which examined environmental disparities and discrimination faced by African American communities and how these communities mobilised against threats of environmental stressors (Bullard, 2000). As such, it is an important piece of work tying social justice to environmental justice (Bullard, 2000).

In recent years, environmental justice literature continues to build on the notion that all people, families and communities have the right to a safe and healthy environment (Avelino et al., 2024; Berthet & Mercier, 2025; Stark et al., 2023). Originating from concerns around the exposure of local populations to hazardous waste, injustice is interpreted in collective terms, recognising that the costs and burdens of environmental degradation and their associated negative health impacts are disproportionately distributed among different groups in society at numerous scales (Chan et al., 2024; Galgóczi, 2022; Martin et al., 2020; Schlosberg, 2013). Furthermore, it seeks to address the drivers of these disproportionate impacts, it recognises the diversity of experiences among affected communities, and it supports the involvement of community members in the development of environmental policy (Chan et al., 2024; Heffron, 2021; Martin et al.,

2020; Schlosberg, 2004). Some authors attribute the types of justice which are mobilised in JT literature to environmental justice (Velicu & Barca, 2020; Wilgosh et al., 2022).

Energy Justice is a conceptual, analytical and decision-making tool (Sovacool & Dworkin, 2015) which examines the fairness in access to energy, the distribution of its benefits and burdens, and how current or future energy infrastructure and policies may exacerbate existing injustices (Avelino et al., 2024; McCauley et al., 2019; Stark et al., 2023). In addition to exploring and understanding the occurrences of these injustices, energy justice encourages a preventative perspective to simultaneously avoid the creation of new injustices and remedy existing injustices (Jenkins et al., 2016). In doing so, it is concerned with the “*application of human rights across the energy life-cycle*” (Heffron & McCauley, 2018, p.74). According to Sovacool & Dworkin (2015, p.441) an energy just world is “*one that equitably shares both the benefits and burdens involved in the production and consumption of energy services, as well as one that is fair in how it treats people and communities in energy decision-making.*” As a decision-making tool, Sovacool & Dworkin (2015, p.440), suggest eight principles to guide energy justice as a decision-making tool: availability, affordability, due process, good governance, sustainability, intragenerational and intergenerational equity, and responsibility.

Some authors bring several of these approaches together. For example, McCauley and Heffron (2018) suggest an approach to JT which integrates climate, energy and environmental justice. They also propose a framework that integrates climate, energy and environmental with spatial and temporal elements (Heffron, 2021; Heffron & McCauley, 2018). Spatial elements are concerned with the question of where the injustices are taking place, and the temporal elements encourage the consideration of the timeline and speed of the transition. In their framework, Heffron and McCauley (2018, p. 76) make direct links between the timeline of injustice (short-, medium- and long-term), the scale of the injustice (local, national, international) and the domain-specific approach to justice which is often mobilised. Though these categories are of course interrelated. However, in their interpretation, short-term local injustices are often explored through energy justice, medium-term national injustices are explored through environmental justice, and long-term international injustices are explored through climate justice.

6.3. New approaches to justice

Amongst the literature, several new approaches to justice are emerging which present novel ways to think about justice. These include decolonial and post-colonial, as well as ecofeminist approaches.

Decolonial and post-colonial approaches to justice challenge the hegemonic western-dominated framework of justice by foregrounding the voice of those that have been historically marginalised, oppressed and faced systematic extractivism due to colonial and neocolonial processes (Agathangelou, 2024; Alarcón et al., 2022; Avelino et al., 2024). These approaches highlight the importance of recognition justice, as well as alternative perspectives which critique the reproduction of extractivism, and epistemological and racial hierarchies (Avelino et al., 2024). Furthermore, they promote bottom-up community driven forms of justice, and responsible and transparent participation of indigenous communities (Agathangelou, 2024; Roysen et al., 2025; SAAMI Council & Amnesty International, 2025).

Ecofeminist approaches are identified in a review of JT conducted for the Haut Conseil pour le Climat in France (Didier, 2020). While the term JT is not often mobilised in ecofeminist literature, Didier et al (2020) consider that ecofeminist approaches resonate with broader JT debates. These approaches aim to address social, racial and economic injustices through radical change to current systems (Didier, 2020). They emphasise the need for transformation of injustices in both public (societal) and private (household) relationships (Didier, 2020). Furthermore, their practices emphasise local autonomy, agroecology, subsistence, as well as regenerative and participative approaches (Didier, 2020).

7. Implementation of the Just Transition

Progress in policy development and implementation for JT varies greatly by country (Chan et al., 2024; Krawchenko & Gordon, 2021). Chan et al. (2024) conducted a review of 159 national laws and policies of 61 countries in addition to the EU which make references to a just, fair, equitable and inclusive transition, though the policies may not explicitly mention JT. The laws and policies included in this study were those developed since the signing of the agreement of the Silesia Declaration on Solidarity in December 2018. They were identified through the Climate Change Laws of the World Database. Chan et al. (2024) found that these policies have different interpretations of

justice and change, ranging from status quo and managerial reforms to structural and transformative change. Among these, transformative approaches were found to be the least common but are considered most ambitious. The authors suggest that this may be related to managerial approaches potentially being easier to implement and quantify (Chan et al., 2024).

A scoping review of EU-level policies, as well as national and subnational policies in 25 countries and 74 regions at various stages of implementing JT, found that some countries have broad overarching policies, while others adopt targeted strategies focused on specific sectors or regions (Krawchenko & Gordon, 2021). In some cases, these strategies are connected to broader multi-level governance mechanisms, but in other cases they are not (Krawchenko & Gordon, 2021). This review also identified several common themes across policies, including: governance mechanisms, sustainability planning, social support mechanisms, innovation and research, and the development of regions and rural areas, the economic sector and the workforce (Krawchenko & Gordon, 2021). Importantly, it highlighted the role of the regional (subnational) scale in industrial transitions as these are closer to communities, employees and local governments (Krawchenko & Gordon, 2021). Furthermore, a common feature identified in the policies was that JT efforts require the involvement of industry workers, residents, local government and business in structural efforts to address place-based social and economic needs (Krawchenko & Gordon, 2021). Finally, numerous implementation challenges were identified including the: difficulties of multi-level governance approaches, underuse of social security mechanisms, need for pro-active initiatives that anticipate impacts of the transition and community needs, need to focus on a society and economy wide transformation, development of mechanisms for accountability, and direct funding for community-level economic development (Krawchenko & Gordon, 2021).

The following sub-sections present an overview of existing JT initiatives and challenges at the EU level, and in several European countries. They do not seek to be exhaustive.

7.1. The European Green Deal

In December 2019, the executive arm of the EU, the European Commission, published the European Green Deal (EGD) which serves as the overarching policy framework for achieving climate neutrality in the EU by 2050 (Dupont et al., 2024; Pianta & Lucchese, 2020). While

the EGD is labelled as a new growth strategy for the EU, it has also been considered as a welcome advancement in the holistic and integrated approaches to climate policy which encompasses all sectors (Dupont et al., 2024). In particular, the EGD encompasses social impacts of the ecological transition, explicitly prioritising a fair transition that ‘leaves no one behind’ (Buzogány et al., 2025; Macquarie & Green, 2023; Sabato & Mandelli, 2024). The EGD has thus been identified as an important advancement in integrating JT as a central aspect in climate policy (Abram et al., 2022; Buzogány et al., 2025). The implementation of the JT aspects of the EGD is supported by several key policy instruments, including: the Just Transition Mechanism (JTM), and the Social Climate Fund (Mocaer & Renard, 2023). Some sources make references to additional policy instruments relating to climate resilience (European Commission, n.d.-a; Sabato & Mandelli, 2024).

The EGD led to the establishment of the JTM in 2021 to accompany JT initiatives in sub-national regions which have the highest potential to be socially impacted by the ecological transition (Macquarie & Green, 2023; Pianta & Lucchese, 2020; UNDP, 2022). The JTM will result in the mobilisation of approximately €55 billion between 2021-2027 (European Commission, n.d.-b; Mocaer & Renard, 2023). It consists of three pillars: (1) the Just Transition Fund; (2) a private sector investment programme (InvestEU) for funding for energy, transport and social infrastructure, and decarbonisation and economic diversification projects; and (3) a new public sector loan facility (European Commission, n.d.-b; Mocaer & Renard, 2023; Pianta & Lucchese, 2020). The Just Transition Fund consists of €17.5 billion (2018 prices) allocated by the EU (Macquarie & Green, 2023; Mocaer & Renard, 2023). This funding is accessible to sub-national regions through the submission of Just Transition Plans and are expected to be matched by national governments (Macquarie & Green, 2023; Pianta & Lucchese, 2020). Several criticisms of the JTM include the risk of inconsistent implementation due to the non-binding nature of the EGD, the need for stronger engagement of concerned stakeholders as well as consideration of intersectional vulnerabilities (Di Rosa et al., 2025).

As the second arm of the implementation of the EGD, the Social Climate Fund aims to redistribute €65 billion between 2026-2034 generated by carbon pricing of the transport and building sectors (Macquarie & Green, 2023; Sabato & Mandelli, 2024; UNDP, 2022). These funds are accessible through Social Climate Plans developed in con-

sultation with regional and local governments, partners and civil society. Furthermore, governments are expected to commit an additional 25% of funding to the projects (Macquarie & Green, 2023).

Key criticisms of the EGD include that it remains first and foremost an economic strategy aimed at fostering economic competitiveness and growth (Didier, 2020; Sabato & Mandelli, 2024). As a non-binding mechanism, it has seen limited translation into binding policy instruments (Sabato & Mandelli, 2024). Thus, there remains debate in the literature concerning the transformative potential of the EGD (Buzogány et al., 2025; Dupont et al., 2024). Some authors consider the EGD inadequate for enabling long-term radical change (Pianta & Lucchese, 2020) and consider that the notion of JT is limited in scope in comparison to activist interpretations (Buzogány et al., 2025). The European Alliance for a Just Transition considers the EGD to be insufficient on its own for addressing JT challenges, and thus calls upon the European Pillar of Social Rights to reinforce social policies in the transition (Mocaer & Renard, 2023). Furthermore, it is regarded as having a heavy focus on distributive justice (Buzogány et al., 2025) with a need to more closely integrate democratic processes into the transition (Mocaer & Renard, 2023; Pianta & Lucchese, 2020). Finally, some authors question the adequacy of the amount of available funding (Pianta & Lucchese, 2020).

7.2. Countries in Europe

Belgium: Belgium’s approach to JT is based on meeting the fundamental needs of the population, including healthcare, housing, food, education, active mobility, and culture and entertainment, within planetary limits (JustTransition & Institut fédéral pour le Développement Durable; IFDD n.d.-b). Work towards JT in Belgium began in 2019 when the Climate Coalition called for the organisation of a national conference on JT as the starting point in a long process on JT in Belgium (JustTransition & IFDD, n.d.-c). In 2022, the “General Estates for a Just Transition” was established by the Belgian Federal Minister for Climate, Environment, Sustainable Development and the Green Deal (JustTransition & IFDD, n.d.-c). This participatory process on a JT in Belgium consisted of four working groups: a High Committee, a Civil Society Forum, a Citizens’ Agora and the national administration (JustTransition & IFDD, n.d.-c). The Conference for a Just Transition in Belgium took place in 2023, where the outcomes of the General Estates were presented (JustTransition & IFDD, n.d.-c).

The High Committee consisted of 26 academics from multiple disciplines, including human and social sciences, economics and earth sciences (Fransolet & Vanhille, 2023). According to the High Committee's report, the sustainability transition aims to reduce socio-ecological injustices and ensure the satisfaction of fundamental social and environmental rights for all (Fransolet & Vanhille, 2023). The report adopts a strong sustainability perspective and interprets JT in terms of three normative frameworks: social and environmental rights, capabilities and fundamental human needs (Fransolet & Vanhille, 2023). The High Committee advocates for integrating social and ecological policies by improving existing measures (e.g. improving energy efficiency, improving sustainable transport, supporting circular economy), integrating social aspects into environmental policies, and integrating environmental aspects into social policies (Fransolet & Vanhille, 2023). The report documented six forms of injustices in relation to the transition, namely differences in how much people contribute to environmental harm, how they experience its impacts, how the ecological transition impacts their jobs, the impact of both transition policies and financing tools, and the extent to which their voice is heard in the development of these policies (Fransolet & Vanhille, 2023). Finally, it proposes an integrated policy framework for implementing the JT in Belgium (Fransolet & Vanhille, 2023).

The Civil Society Forum consisted of a questionnaire and roundtable discussions with civil-society organisations (e.g. trade unions, non-government organisations) which resulted in the identification of priorities and recommendations from civil society around four human needs: food, housing, healthcare and mobility (JustTransition & IFDD, n.d.-a). The Citizens' Agora brought together a representative group of 65 citizens aged over 16 in a democratic process which resulted in the formulation of 24 conditions and 47 recommendations for the JT in Belgium (JustTransition & IFDD, n.d.-a). Finally, the federal administration produced a report providing governance recommendations for the JT.

A blueprint synthesising the findings of the Conference and the General Estates, presents the 180 recommendations based on four key categories: food, transport, healthcare, housing, in addition to general recommendations (JustTransition, 2025). It identifies seven key policy levers: employment, education and training, finance and investment, resources and energy, gender equality, poverty reduction and international development and solidarity (JustTransition, 2025). These recommenda-

tions are yet to be implemented. Additionally, a recent report aims to provide the theoretical foundation for a socio-ecological safety net in Belgium (Vielle et al., 2025). It does so by first operationalising JT through the notion of socio-ecological risk, proposing transformative measures for social security, and defining guiding principles and instruments for the implementation of the socio-ecological safety net (Vielle et al., 2025). The report highlights socio-ecological safety net measures such as ensuring basic universal services, supporting sectors which are of particular interest for sustainability and ensuring inclusion in employment and income security in these sectors (Vielle et al., 2025).

France: The “Gilets Jaunes” (Yellow Vests) social movement highlighted prominent JT issues in France, notably how carbon taxes can lead to increased precarity of the most vulnerable and the importance of procedural justice in the development of JT policy. According to the French Agency for Ecological Transition (Agence de la transition écologique; ADEME) the JT requires the conversion of ‘brown’ activities and into ‘green’ activities while taking into account the specific vulnerabilities of societies and economies, through processes which are as democratic as possible (ADEME, 2024). The National Council against Poverty and Social Exclusion (Conseil national des politiques de lutte contre la pauvreté et l'exclusion sociale; CNLE) and the members of the Inspection générale des affaires sociales (IGAS) support the JT as it presents an op-

ADEME (2024)

The impact of the JT on the availability of jobs will be slightly positive and will have a positive impact on the average available household income. However, this risks to be slowed down by skill shortages and slow development of alternative job markets associated with the ecological transition. Furthermore, the devaluation of fossil-fuel reliant businesses due to the transition has been understudied and is likely underestimated (ADEME, 2024). Several criticisms have been made of the French approach to JT in France. This includes the prominence of technical aspects of the transition and categorising beneficiaries based on their heating and transport choices or their professional skills (Didier, 2020), and the siloed approach which separates ecological and social initiatives (Mocaer & Renard, 2023).

portunity for comprehensive societal reform which could improve the quality of life for low-income populations (Allot & Erpelding-Parier, 2024; Duvoux & Lelièvre, 2024). The IGAS calls for increased integration of social dimensions in the national governance of the ecological transition particularly by strengthening governance specific to JT and participation of vulnerable groups (Allot & Erpelding-Parier, 2024).

The European Just Transition Fund forms a central pillar of the Just Transition in France (Mocaer & Renard, 2023). France has established a national programme which aims to support retraining and professional development linked to the decarbonisation of fossil-fuel dependent industries (République Française & l'Europe s'engage en France, n.d.). Additionally, six French regions are eligible for funding from the Just Transition Fund, among which several have established Territorial Just Transition Plans which enable them to access this funding, including: Hauts-de-France, Bouches-du-Rhône, Auvergne-Rhône-Alpes, Normandy (République Française & l'Europe s'engage en France, n.d.; WWF, 2023).

Germany: As historically the largest coal producer in Europe, Germany has 60 years of experience transitioning away from coal and steel production (Galgóczi, 2022; Morena et al., 2020). Since the 1960s this transition process has intentionally been steered to prevent harmful economic and social impacts (Furnaro et al., 2021). Initially driven by sub-national policies which were created and implemented in a top-down manner, since the 1980s municipal governments have played a more active role and adopted approaches to ensure the inclusion of local populations in decision making.

Until the 2000s, policies typically protected coal industries (Furnaro et al., 2021), supported by trade-unions which advocated for a lengthy transition process (Galgóczi, 2022). However, from the 1990s onwards, the approach increasingly prioritised local community well-being through the inclusion of economic, cultural and environmental interventions (Furnaro et al., 2021). Furthermore, since the 2000s, a more proactive and preventative approach emerged which drove job creation and diversification in coal regions (Furnaro et al., 2021).

Public policies supporting the JT in Germany fall into four categories: promoting economic diversification away from coal, protecting workers in declining coal-intensive industries, supporting better living conditions in coal-dependent regions, and rehabilitating former mining and industrial areas through environmental rehabilitation (Furnaro et al., 2021). Notable features of the German ap-

proach include the high level of social dialogue, engagement in regional industrial development, large public investment in infrastructure and environmental remediation, and the establishment of the Coal Commission which gives recommendations on the coal phase-out through deliberative democracy (Galgóczi, 2022; Morena et al., 2020). An anticipatory approach tailored to local needs and supported by broader policy mechanisms such as social security and labour support systems, has been central in supporting regions transitioning away from coal (Furnaro et al., 2021). However, there remain significant criticisms of the German JT, specifically that German environmental targets lack ambition, the process is too lengthy, not proactive enough, and generally insufficient to address future challenges (Furnaro et al., 2021; Morena et al., 2020).

Switzerland: Compared to many neighbouring countries, there is limited academic and grey literature on JT policies and initiatives in Switzerland. JT in Switzerland appears to be in its infancy. There are, however, some references to JT in the climate policy of the Canton of Vaud. Furthermore, several civil society actors are beginning to work on JT, including Durabilitas, Travail Suisse and Solidar Suisse, and several academics work on energy justice in the transition.

A search of nine national and five cantonal public policy documents (from the Cantons of Geneva and Vaud) revealed limited explicit references to JT within the examined legislation and policies (see Annexe). Several documents at national and cantonal levels make references to notions of social justice, distributive justice, and differentiated risks linked to climate change. The Climate Plan of the Canton of Vaud was the only policy document identified that makes explicit mention of JT, stating: “The State has a duty to actively contribute to a climate policy that is commensurate with the challenges and its means, while promoting a just and economically sustainable transition.” (Politique Climatique Du Conseil d'Etat Plan Climat Vaudois 2ème Génération, 2025; p.16). In this context, the Canton of Vaud defines JT as “a socially just, inclusive and equitable ecological transition in terms of the distribution of costs and benefits, support for vulnerable populations, and support for the working population and the economic fabric.” (Politique Climatique Du Conseil d'Etat Plan Climat Vaudois 2ème Génération, 2025; p.75).

Several civil society organisations in Switzerland are beginning to work on JT.

Durabilitas

Durabilitas has been actively working on a project to promote a JT in Switzerland by adapting existing knowledge to the Swiss context, developing recommendations, and testing implementation (Durabilitas, 2024; see Table 1 for definition of JT). The operationalisation of JT is conceived in the project from the perspective of risks of transition (vulnerabilities and injustices that are exacerbated by the transition) and risks of non-transition (existing vulnerabilities and injustices that will continue to exist and worsen if the transition does not take place) (Durabilitas, 2024, 2025). Its ultimate goal is to provide Swiss actors with practical methods to carry out a JT that addresses both current vulnerabilities and those created by the transition itself (Durabilitas, 2024).

Travail Suisse

Travail Suisse is an umbrella organisation for employees in Switzerland which advocates for a climate policy that combines social justice and ecological transition, ensuring that costs do not disproportionately burden low-income households and proposing a redistributive climate income (Torche, 2021). The organisation emphasises the integration of trade unions, support for workers, and the development of local investment in renewable energy and training to ensure a just and sustainable transition (Torche, 2021).

SOLIDAR Switzerland

Member of a European network of NGOs advocating for social justice in Europe (Solidar Suisse, n.d.), SOLIDAR Switzerland promotes a JT that closely links social justice and climate protection, and, through the European Alliance for a Just Transition, lobbies for community participation and justice in the transition (Solidar Suisse, n.d.).

While there are many researchers in Switzerland working on social justice more generally and the intersection of social justices and the environment, there is limited research on JT that look explicitly at justice issues in the transition process. There is, however, published and ongoing research on energy justice in Switzerland. This includes, for example, recent research which identified citizen participation as key to achieving just energy transitions, but that current initiatives often focus on limited

forms of inclusion and underrepresent specific groups, notably women, migrants, and low-income groups (Shejale et al., 2025). This research identifies Switzerland's decentralized energy system and democratic processes as leverage points for strengthening inclusive renewable energy communities and participatory policy forums (Shejale et al., 2025). Finally, ongoing energy justice research at the University of Lausanne seeks to apply the energy justice framework to Swiss energy policies and develop equity metrics (Yilmaz, 2024). Its main output is an atlas of energy equity in Switzerland to visualize social and spatial impacts to inform inclusive clean energy policies (Yilmaz, 2024).

8. Future research needed

While literature on the theoretical aspects of JT is growing, the literature highlights the need for a deeper understanding on what constitutes a JT and empirical understanding of how to achieve this, as well as comparisons of divergent approaches to JT (Benegiamo et al., 2023; Hughes & Hoffmann, 2020; Pai et al., 2020; Stark et al., 2023; Ullman & Kittner, 2024; Wang & Lo, 2021). This includes the mechanisms, drivers and governance of the JT (Stark et al., 2023), and more specifically, the benefits and challenges of a transformative approach to the JT (Chan et al., 2024).

Beyond these gaps the research needed is both interdisciplinary and transdisciplinary in nature (Hughes & Hoffmann, 2020; Kortetmäki et al., 2025; Pai et al., 2020; Ullman & Kittner, 2024). Such research requires the involvement of social scientists and humanities ranging from human geography, anthropology, environmental social science, and political science and political philosophy, as well as specialists in labour, economics, law, and energy transitions and policy (Pai et al., 2020; Ullman & Kittner, 2024). It also requires the co-production of knowledge with and for stakeholders, including local, indigenous, activist and civil society groups (Hughes & Hoffmann, 2020; Rodriguez et al., 2024; Ullman & Kittner, 2024). Numerous scholars call for the inclusion of marginalised voices and approaches which are not centred on European and Western philosophical underpinnings (Avelino et al., 2024; Pai et al., 2020; Ullman & Kittner, 2024).

Specific recommendations for JT research include the need for greater understanding of non-distributional forms of justice in the transition (Ullman & Kittner, 2024), as well as the emergence of new forms of injustices which result from ecological crises and the transition (Benegiamo et al., 2023). Furthermore, current literature on JT policies tends to prioritize climate decarbonisation, with limited atten-

tion paid to broader environmental crises. Scholars argue for a more holistic, planetary approach that treats JT as social-ecological strategies addressing the full range of ecological challenges and their impacts on humans and non-humans (Laurent, 2024; Stevis & Felli, 2020).

In the context of Switzerland, it is clear from this literature review that there is a need for applied research which not only explores just transition issues in the context of Switzerland, but also contributes to preventing and reducing injustices linked to ecological crises and the ecological transition. Research can actively contribute to reducing inequalities, empowering disadvantaged groups, and ensuring appropriate participation of all concerned stakeholders in the development of JT measures. For these reasons, action research approaches exploring the transformative potential of socio-ecological justice measures appear particularly relevant.

9. Conclusion

JT represents an important concept for addressing the intertwined social and ecological challenges of the sustainability transition. This literature review highlights great diversity in how JT is understood, interpreted and implemented. While notions of justice, vulnerability and transparent and meaningful participation are central, interpretations of which injustices should be addressed, who should be included in justice considerations, and how change should be enacted is highly context specific and varies greatly in terms of which approach to JT is adopted. Development and implementation of policies to date show that transformative approaches are rare, with many strategies remaining fragmented and sector specific. This highlights a persistent gap in understanding not only the theoretical aspects of JT but, more importantly, how JT is implemented, including the governance mechanisms and structures, as well as participatory processes. There remains an important need for research, particularly in Switzerland, that is both interdisciplinary and co-produced with local communities, marginalized groups, and diverse actors and stakeholders in order to better understand how JT can be implemented to achieve meaningful and necessary social and ecological change.

Annexe

National laws:

641.71 Loi fédérale sur la réduction des émissions de CO₂

814.310 Loi fédérale sur les objectifs en matière de protection du climat, sur l'innovation et sur le renforcement de la sécurité énergétique (LCI)

814.01 Loi fédérale sur la protection de l'environnement

451 Loi fédérale sur la protection de la nature et du paysage

730.0 Loi sur l'énergie

National policies and strategies:

Stratégie pour le développement durable 2030

Stratégie climatique à long terme 2050

Switzerland's second nationally determined contribution under the Paris Agreement 2031-2035

Switzerland's first nationally determined contribution (NDC) under the Paris Agreement (2021-2030)

Documents from the Canton of Vaud:

Conception cantonale de l'énergie Département du territoire et de l'environnement (DTE)

Agenda 2030 Canton du Vaud

Plan Climat Vaud 2eme generation (2025)

Documents from the Canton of Geneva:

Plan climat cantonal 2030

Concept du développement durable

Bibliography

**** Works of outstanding interest have been highlighted.**

- Abram, S., Atkins, E., Dietzel, A., Jenkins, K., Kiamba, L., Kirshner, J., Kreienkamp, J., Parkhill, K., Pegram, T., & Santos Ayllón, L. (2022). Just Transition: A whole-systems approach to decarbonisation. *Climate Policy*, 22(8), 1033–1049. <https://doi.org/10.1080/14693062.2022.2108365>
- ADEME. (2024). *Les avis de l'ADEME*.
- Agathangelou, A. M. (2024). Time, transition, and planetary decolonial justice as invention. *Environmental Politics*, 33(7), 1265–1285. <https://doi.org/10.1080/09644016.2024.2404377>
- Aklin, M. (2025). The political logic of just transition policies. *Climate Policy*, 25(3), 319–334. <https://doi.org/10.1080/14693062.2024.2378995>
- Alarcón, P., Diaz, N., Schwab, J., & Peters, S. (2022). *Policy Brief: Rethinking Just Transition Critical Reflections for the Global South* (TRAJECTS Policy Brief Nos. 01–2022).
- Allot, F., & Erpelding-Parier, E. (2024). *Les enjeux sociaux du changement climatique: Un éclairage international pour une feuille de route nationale* (RAPPORT IGAS No. N°2024-035R).
- Atteridge, A., & Strambo, C. (2020). *Seven principles to realize a just transition to a low-carbon economy* (SEI Policy Report) [Scientific Report].
- ** Avelino, E., Wijsman, K., Van Steenbergen, E., Jhagroe, S., Wittmayer, J., Akerboom, S., Bogner, K., Jansen, E. F., Frantzeskaki, N., & Kalfagianni, A. (2024). Just Sustainability Transitions: Politics, Power, and Prefiguration in Transformative Change Toward Justice and Sustainability. *Annual Review of Environment and Resources*, 49(1), 519–547. <https://doi.org/10.1146/annurev-environ-112321-081722>**
Recent review of literature on justice and transition, sustainability and justice, and sustainability and transition or transformation which establishes the definition of JT used by the European Environment Agency.
- Benegiamo, M., Guillibert, P., & Villa, M. (2023). Work and welfare transformations in the climate crisis: A research pathway towards an ecological, just transition. *SOCIOLOGIA DEL LAVORO*, 165, 9–29. <https://doi.org/10.3280/SL2023-165001oa>
- Bennett, N. J., Blythe, J., Cisneros-Montemayor, A. M., Singh, G. G., & Sumaila, U. R. (2019). Just Transformations to Sustainability. *Sustainability*, 11(14), Article 14. <https://doi.org/10.3390/su11143881>
- Berthe, P. A. (2024). *Quelle justice sociale dans une société en coévolution ?*
- Berthet, T., & Mercier, D. (2025). *Le travail et la société française: 30 ans de recherche en sciences sociales*. CNRS éditions.
- Bourg, D. (2020). Inégalités sociales et écologiques. *Revue de l'OFCE*, 165(1), 21–34.
- Bullard, R. (2000). *Dumping in Dixie* (3rd ed.). Westview Press.
- Buzogány, A., Parks, Louisa, & Torney, D. (2025). Democracy and the European Green Deal. *Journal of European Integration*, 47(2), 135–154. <https://doi.org/10.1080/07036337.2025.2459859>
- Cameron, C., Krishna, K., Mantlana, B., Mudavanhu, S., Nondlazi, B., Norrington-Davies, G., Prowse, M., Roman, C., Tlhotlhamajje, L., & Yeung, T. (2023). *Realist review on just transition*.
- Cedergren, E., Tapia, C., Sánchez Gassen, N., & Lundgren, A. (2022). *Just Green Transition – key concepts and implications in the Nordic Region*. Nordregio. <https://nordregio.org/publications/just-green-transition-key-concepts-and-implications-in-the-nordic-region/>
- Chan, T., Wang, J.-A., & Higham, C. (2024). *Mapping justice in national climate action: A global overview of just transition policies*.
- Cigna, L., Fischer, T., Hasanagic Abuannab, E., Heins, E., & Rathgeb, P. (2023). Varieties of Just Transition? Eco-Social Policy Approaches at the International Level. *Social Policy and Society*, 22(4), 730–746. <https://doi.org/10.1017/S1474746423000192>
- Ciplet, D. (2022). Transition coalitions: Toward a theory of transformative just transitions. *Environmental Sociology*, 8(3), 315–330. <https://doi.org/10.1080/23251042.2022.2031512>
- Clarke, L., & Lipsig-Mummé, C. (2020). Future conditional: From just transition to radical transformation? *European Journal of Industrial Relations*, 26(4), 351–366. <https://doi.org/10.1177/0959680120951684>
- Coleman, C. (2025, May 14). Just Transition Work Programme: Everything you need to know. *Just Energy Transition in Coal Regions - Knowledge Hub*. Retrieved June 24, 2025, from <https://www.jetknowledge.org/news/just-transition-work-programme-everything-you-need-to-know/>
- Council of the European Union. (2018). *Silesia Declaration on Solidarity and Just Transition*. (No. 14545/1/18 REV 1).
- Di Rosa, A., Felice, M., Fresquet, O., Obermeyer, C., Pottier, L., & Vogel, E. (2025). *The Just Transition Mechanism: Making Sure No One Is Left Behind* [SciencesPo - European Chair for Sustainable Development and Climate Transition]. Re-

- trieved September 1, 2025, from <https://www.sciencespo.fr/psia/chair-sustainable-development/2025/06/24/the-just-transition-mechanism-making-sure-no-one-is-left-behind/>
- Didier, E. (2020). *Les Transitions Justes* [Rapport rendu au Haut Conseil pour le climat].
- Dupont, C., Moore, B., Boasson, E. L., Gravey, V., Jordan, A., Kivimaa, P., Kulovesi, K., Kuzemko, C., Oberthür, S., Panchuk, D., Rosamond, J., Torney, D., Tosun, J., & Von Homeyer, I. (2024). Three decades of EU climate policy: Racing toward climate neutrality? *WIREs Climate Change*, 15(1), e863. <https://doi.org/10.1002/wcc.863>
- Durabilitas. (2024). *Changement climatique et transition juste en Suisse: Mieux prendre en compte la vulnérabilité sociale* [Note de recherche n°1 du projet « JT, Pour une Transition Juste en Suisse »]. Durabilitas.
- Durabilitas. (2025). *Vers une Transition Juste en Suisse: Introduction, définition et approche* (Note de Transfert de Connaissances N°1). Durabilitas.
- Duvoux, N., & Lelièvre, M. (2024). *Rapport du CNLE - Faire de la transition un levier de l'inclusion sociale*.
- European Commission. (n.d.-a). The European Green Deal—Striving to be the first climate-neutral continent. *Official Website of the European Union*. Retrieved June 24, 2025, from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
- European Commission. (n.d.-b). The Just Transition Mechanism: Making sure no one is left behind. *Official Website of the European Union*. Retrieved June 24, 2025, from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en
- European Commission. (2024). *COP28: Overall outcome & EU reactions*. Retrieved June 24, 2025, from https://employment-social-affairs.ec.europa.eu/news/cop28-overall-outcome-eu-reactions-2024-01-24_en
- European Environment Agency. (2024). *Just sustainability transitions: From concept to practice*. Publications Office. <https://data.europa.eu/doi/10.2800/6238023>
- Felli, R., & Stevis, D. (2014). La stratégie syndicale d'une « transition juste » vers une économie durable: *Mouvements*, n° 80(4), 111–118. <https://doi.org/10.3917/mouv.080.0111>
- Fransolet, A., Hudon, M., La Gorgia, A., & Meyer, S. (2026). Mapping Visions of a Just Transition: A Q Survey of Belgian Stakeholders. *Ecological Economics*, 239(108775). <https://doi.org/10.1016/j.ecolecon.2025.108775>
- ** Fransolet, A., & Laurent, É. (2024). *Mapping and institutionalizing social-ecological inequalities for a just transition in Europe* (SciencesPo OFCE) [Working Paper].**
Holistic and transformational approach to JT which proposes a multi-dimensional framework, the 'social-ecological justice compass', for assessing the state of social-ecological inequalities in Europe.
- Fransolet, A., & Vanhille, J. (2023). *Just Transition in Belgium Concepts, Issues at Stake, and Policy Levers* [Scientific Report on behalf of the High Committee for a Just Transition for the Belgian Federal Minister for Climate, Environment, Sustainable Development and Green Deal].
- Furnaro, A., Herpich, P., Brauers, H., Oei, P.-Y., Kemfert, C., & Look, W. (2021). *German Just Transition: A Review of Public Policies to Assist German Coal Communities in Transition*.
- Galgóczi, B. (2020). Just transition on the ground: Challenges and opportunities for social dialogue. *European Journal of Industrial Relations*, 26(4), 367–382. <https://doi.org/10.1177/0959680120951704>
- Galgóczi, B. (2022). From a 'just transition for us' to a 'just transition for all.' *Transfer*, 28(3), 349–366. <https://doi.org/10.1177/10242589221125066>
- Garvey, A., Norman, J. B., Büchs, M., & Barrett, J. (2022). A “spatially just” transition? A critical review of regional equity in decarbonisation pathways. *Energy Research & Social Science*, 88, 102630. <https://doi.org/10.1016/j.erss.2022.102630>
- Gómez, C., Elliott, C., Pellerin, M., Singh, N., & Walls, G. (2025, May 1). What Is a 'Just Transition,' and Are Countries Really Making Progress? *World Resources Institute*. Retrieved November 22, 2025, from <https://www.wri.org/insights/what-is-just-transition-tracking-progress>
- Heffron, R. J. (2021). *Achieving a Just Transition to a Low-Carbon Economy*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-89460-3>
- Heffron, R. J., & McCauley, D. (2018). What is the 'Just Transition'? *Geoforum*, 88, 74–77. <https://doi.org/10.1016/j.geoforum.2017.11.016>
- Henry, M. S., Bazilian, M. D., & Markuson, C. (2020). Just transitions: Histories and futures in a post-COVID world. *Energy Research & Social Science*, 68, 101668. <https://doi.org/10.1016/j.erss.2020.101668>
- Hopwood, B., Mellor, M., & O'Brien, G. (2005). Sustainable Development: Mapping Different Approaches. *Sustainable Development*, 13, 38–25. <https://doi.org/10.1002/sd.244>
- Hughes, S., & Hoffmann, M. (2020). Just urban transitions: Toward a research agenda. *WIREs Climate Change*, 11(3), e640. <https://doi.org/10.1002/wcc.640>
- ILO. (2015). *Guidelines for a just transition towards environmentally sustainable economies and societies for all*. <https://www.ilo.org/publications/guidelines-just-transition-towards-environmentally-sustainable-economies>

- ILO. (2024a). *ILO Helpdesk: Business and a Just Transition*. Retrieved June 19, 2025, from <https://www.ilo.org/resource/other/ilo-helpdesk-business-and-just-transition>
- ILO. (2024b). *Mapping Just Transitions in NCDs*. <https://www.ilo.org/publications/mapping-just-transition-ndcs>
- IPCC. (2022). *Climate Change 2022, Mitigation of Climate Change. Working Group III contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (AR6)*. https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_FullReport.pdf
- Jenkins, K., McCauley, D., Heffron, R., Stephan, H., & Rehner, R. (2016). Energy justice: A conceptual review. *Energy Research & Social Science*, 11, 174–182. <https://doi.org/10.1016/j.erss.2015.10.004>
- Just Transitions Research Collaborative. (2018). *Mapping Just Transition(s) to a Low-Carbon World*. UNRISD. <https://www.unclearn.org/wp-content/uploads/library/report-jtrc-2018.pdf>
- JustTransition. (2025). *Transition juste. Blueprint pour une politique en Belgique: 180 recommandations*. <https://www.justtransition.be/fr/transition-juste-blueprint-pour-une-politique-en-belgique-180-recommandations>
- JustTransition, & Institut fédéral pour le Développement Durable. (n.d.-a). *L'agora citoyenne*. *JustTransition.Be*. Retrieved April 14, 2025, from <https://justtransition.be/fr/lagora-citoyenne>
- JustTransition, & Institut fédéral pour le Développement Durable. (n.d.-b). *Le forum*. *JustTransition.Be*. Retrieved April 14, 2025, from <https://justtransition.be/fr/le-forum>
- JustTransition, & Institut fédéral pour le Développement Durable. (n.d.-c). *Transition Juste*. *JustTransition.Be*. Retrieved April 14, 2025, from <https://www.justtransition.be/fr/transition-juste>
- Kortetmäki, T., Timmermann, C., & Tribaldos, T. (2025). Just transition boundaries: Clarifying the meaning of just transition. *Environmental Innovation and Societal Transitions*, 55, 100957. <https://doi.org/10.1016/j.eist.2024.100957>
- Krawchenko, T. A., & Gordon, M. (2021). How Do We Manage a Just Transition? A Comparative Review of National and Regional Just Transition Initiatives. *Sustainability*, 13(11), Article 11. <https://doi.org/10.3390/su13116070>
- ** Laurent, É. (2024). *Just Transitions: Advancing Environmental and Social Justice*. Edward Elgar Publishing. <https://doi.org/10.4337/9781035318414>**
Proposes a holistic and proactive approach to JT in the context of sufficiency by bringing together reflections from multiple academic fields and philosophical perspectives, and exploring a wide range of transition policies in a variety of contexts.
- Macquarie, R., & Green, F. (2023). *Just and robust transitions to net zero* [Scientific Report]. London School of Economics.
- Malerba, D. (2022). Just transitions: A review of how to decarbonise energy systems while addressing poverty and inequality reduction. *Discussion Paper 6/22*. <https://doi.org/10.23661/DP6.2022>
- Martin, A., Armijos, M. T., Coolsaet, B., Dawson, N., A. S. Edwards, G., Few, R., Gross-Camp, N., Rodriguez, I., Schroeder, H., G. L. Tebboth, M., & White, C. S. (2020). Environmental Justice and Transformations to Sustainability. *Environment: Science and Policy for Sustainable Development*, 62(6), 19–30. <https://doi.org/10.1080/00139157.2020.1820294>
- McCauley, D., & Heffron, R. (2018). Just transition: Integrating climate, energy and environmental justice. *Energy Policy*, 119, 1–7. <https://doi.org/10.1016/j.enpol.2018.04.014>
- McCauley, D., Ramasar, V., Heffron, R. J., Sovacool, B. K., Mebratu, D., & Mundaca, L. (2019). Energy justice in the transition to low carbon energy systems: Exploring key themes in interdisciplinary research. *Applied Energy*, 233–234, 916–921. <https://doi.org/10.1016/j.apenergy.2018.10.005>
- Méda, D. (2014). Chapitre 15. Concilier résolution de la question écologique et résolution de la question sociale: Où l'on revient sur la possibilité de constituer une cause commune. In *La Mystique de la croissance* (pp. 201–211). Flammarion; Cairn.info. <https://shs.cairn.info/la-mystique-de-la-croissance--9782081334939-page-201?lang=fr>
- Mocaer, A., & Renard, L. (2023). *La transition juste: Introduction à un concept de solidarité* (Études et Dossiers). Pour la Solidarité; Alter'Lab.
- Moore, M.-L., Tjornbo, O., Enfors, E., Knapp, C., Hodbod, J., Baggio, J. A., Norström, A., Olsson, P., & Biggs, D. (2014). Studying the complexity of change: Toward an analytical framework for understanding deliberate social-ecological transformations. *Ecology and Society*, 19(4). <https://www.jstor.org/stable/26269689>
- ** Morena, E., Krause, D., & Stevis, D. (2020). *Just transitions: Social justice in the shift towards a low-carbon world*. Pluto Press.**
Provides a comprehensive overview of the history of how JT evolved internationally and explores the application of JT in several contexts.
- Newell, P., & Mulvaney, D. (2013). The political economy of the 'just transition.' *The Geographical Journal*, 179(2), 132–140. <https://doi.org/10.1111/geoj.12008>
- Pai, S., Harrison, K., & Zerriffi, H. (2020). *A systematic review of the key elements of a Just Transition for fossil fuel workers* (No. WP 20-04; Clean Economy Working Paper Series). Smart Prosperity Institute.
- Pianta, M., & Lucchese, M. (2020). Rethinking the European Green Deal: An Industrial Policy for a Just Transition in Europe. *Review of Radical Political Economics*, 52(4), 633–641. <https://doi.org/10.1177/0486613420938207>

- Politique Climatique Du Conseil d'Etat Plan Climat Vaudois 2ème Génération (2025).
République Française, & l'Europe s'engage en France. (n.d.). *Fonds européen pour une transition juste*. Retrieved September 10, 2025, from <https://www.europe-en-france.gouv.fr/fr/fonds-europeens-2021-2027/fonds-europeen-pour-une-transition-juste-ftj>
- Richard, E. (2024). *Transition ou transformation? Analyse de deux concepts clés pour les changements sociaux au XXIe siècle* [Centre de compétences en durabilité - Synthèse]. <https://www.unil.ch/files/live/sites/unil/files/02-universite/0204-organisation/020404-unites-et-services/CCD/Publications/transition-ou-transformation-analyse-de-deux-concepts-cles>
- Rockström, J., Gupta, J., Qin, D., Lade, S. J., Abrams, J. F., Andersen, L. S., Armstrong McKay, D. I., Bai, X., Bala, G., Bunn, S. E., Ciobanu, D., DeClerck, F., Ebi, K., Gifford, L., Gordon, C., Hasan, S., Kanie, N., Lenton, T. M., Loriani, S., ... Zhang, X. (2023). Safe and just Earth system boundaries. *Nature*, 619(7968), 102–111. <https://doi.org/10.1038/s41586-023-06083-8>
- Rodriguez, I., Walter, M., & Temper, L. (2024). Introduction. In *Just Transformations: Grassroots struggles for alternative futures*. Pluto Press.
- Roseberg, A. (2020). “No jobs on a dead planet”: The international trade union movement and just transition. In *Just Transitions: Social justice in the Shift Towards a Low-Carbon World*. In E. Morena, D. Krause, D. Stevis (Eds.), (pp. 32–55). Pluto Press.
- Royen, R., Fagundes, G. M., Kos, L., Bruehwiler, N., & Koehrsen, J. (2025). Building a World-ship: A decolonial approach to just energy transitions. *Human Geography*, 18(2), 213–228. <https://doi.org/10.1177/19427786251326605>
- SAAMI Council, & Amnesty International. (2025). *Just transition or Green colonialism*. https://www.amnesty.se/document-s/278/Final_Just_transition_or_Green_colonialism.pdf
- Sabato, S., & Mandelli, M. (2024). Towards an EU framework for a just transition: Welfare policies and politics for the socio-ecological transition. *European Political Science*, 23(1), 14–26. <https://doi.org/10.1057/s41304-023-00458-1>
- Schlosberg, D. (2004). Reconceiving Environmental Justice: Global Movements And Political Theories. *Environmental Politics*, 13(3), 517–540. <https://doi.org/10.1080/0964401042000229025>
- Schlosberg, D. (2013). Theorising environmental justice: The expanding sphere of a discourse. *Environmental Politics*, 22(1), 37–55. <https://doi.org/10.1080/09644016.2013.755387>
- Shejale, S., Zhan, M. X., Sahakian, M., Aleksieva, R., Biresselioglu, M. E., Bogdanova, V., Cardone, B., Epp, J., Kirchler, B., Kollmann, A., Liste, L., Massullo, C., & Schibel, K.-L. (2025). Participation as a pathway to procedural justice: A review of energy initiatives across eight European countries. *Energy Research & Social Science*, 122, 103982. <https://doi.org/10.1016/j.erss.2025.103982>
- Solidar Suisse. (n.d.). *Pas de protection du climat sans justice sociale*. Retrieved April 14, 2025, from <https://solidar.ch/fr/pas-protection-climat-sans-justice-sociale/>
- Sovacool, B. K., & Dworkin, M. H. (2015). Energy justice: Conceptual insights and practical applications. *Applied Energy*, 142, 435–444. <https://doi.org/10.1016/j.apenergy.2015.01.002>
- Stark, A., Gale, F., & Murphy-Gregory, H. (2023). Just Transitions’ Meanings: A Systematic Review. *Society & Natural Resources*, 36(10), 1277–1297. <https://doi.org/10.1080/08941920.2023.2207166>
- Stavis, D., & Felli, R. (2020). Planetary just transition? How inclusive and how just? *Earth System Governance*, 6, 100065. <https://doi.org/10.1016/j.esg.2020.100065>
- Torche, D. (2021). *Un nouveau marché du travail écologique et social pour la Suisse*. Retrieved April 7, 2025, from <https://www.travailsuisse.ch/fr/media/1563/download?attachment>
- ** Ullman, A. N., & Kittner, N. (2024). **Are global efforts coordinated for a Just Transition? A review of civil society, financial, government, and academic Just Transition frameworks.** *Energy Research & Social Science*, 108, 103371. <https://doi.org/10.1016/j.erss.2023.103371>
Recent review of how JT is understood and used in various contexts, with a specific focus on civil society and government contexts.
- UNDP. (2022). *How Just Transition can help deliver the Paris Agreement*. <https://www.undp.org/publications/how-just-transition-can-help-deliver-paris-agreement>
- UNFCCC. (2025a). *Guidelines and policy frameworks for just transition of the workforce and the creation of decent work and quality jobs—Compilation and synthesis report*. <https://unfccc.int/sites/default/files/resource/JT%20Compilation%20Guidelines.pdf>
- UNFCCC. (2025b). *Just transitions in national climate frameworks and climate policies: Experiences in alignment, planning and progress tracking*. United Nations Framework Convention on Climate Change.
- Université de Lausanne. (2022). *Préparer Demain 2021-2026 Plan d'intentions de la Direction de l'Université de Lausanne*. UNIL. <https://www.unil.ch/files/live/sites/unil/files/02-universite/0210-enseignement/plan-intentions-unil-21-26.pdf>

- Van Uffelen, N., Taebi, B., & Pesch, U. (2024). Revisiting the energy justice framework: Doing justice to normative uncertainties. *Renewable and Sustainable Energy Reviews*, 189, 113974. <https://doi.org/10.1016/j.rser.2023.113974>
- Velicu, I., & Barca, S. (2020). The Just Transition and its work of inequality. *Sustainability: Science, Practice and Policy*, 16(1), 263–273. <https://doi.org/10.1080/15487733.2020.1814585>
- Vielle, P., Fransolet, A., Laurent, É., Armeni, C., Henet, S., Bauler, T., Lamine, A., & Dorssemont, F. (2025). *Construire une protection sociale-écologique pour la Belgique (Version Synthèse)*. Rapport pour le Service public fédéral (SPF) Sécurité sociale. <https://doi.org/10.5281/ZENODO.15800520>
- Wang, X., & Lo, K. (2021). Just transition: A conceptual review. *Energy Research & Social Science*, 82, 102291. <https://doi.org/10.1016/j.erss.2021.102291>
- Wilgosh, B., Sorman, A. H., & Barcena, I. (2022). When two movements collide: Learning from labour and environmental struggles for future Just Transitions. *Futures*, 137, 102903. <https://doi.org/10.1016/j.futures.2022.102903>
- WWF. (2023). *Summary Report: Territorial Just Transition Plan Scorecard Assessment*. <https://www.wwf.eu/?9036866/Territorial-Just-Transition-Plan-Scorecard-Assessment>
- Yilmaz, S. (2024). *Swiss Energy eQUIty aTlAS: Closing the loop between theory, policy, and practice—SNF Research Proposal*.

List of figures and tables

Figure 1. <i>Number of academic articles on JT published in recent years. Made by the author with OpenAlex.</i>	4
Figure 2. <i>Explicit references to JT in Nationally Determined Contributions (3.0) according to country income level and region, from: ILO (2024b, p. 7).</i>	5
Figure 3. <i>World map of explicit mentions of JT in Nationally Determined Contributions according to year of first mention, from: Gómez et al. (2025).</i>	5
Table 1. <i>Examples of Just Transition definitions.</i>	7
Table 2. <i>Injustices addressed in JT literature.</i>	9
Table 3. <i>Broad categories related to levels of desired change.</i>	10
Table 4. <i>Types of justice most frequently mobilised in Just Transition literature.</i>	11