

Just Green Transition - key concepts and implications in the Nordic Region

Elin Cedergren, Carlos Tapia,
Nora Sánchez Gassen, Anna Lundgren

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1. Introduction

Like all countries around the world, the Nordic countries are facing climate change and the transition towards a more sustainable future.

All Nordic countries and self-governing territories are in the process of implementing national, regional and local strategies and policies aimed at mitigating climate change and its effects on society. The transition to a more sustainable future has implications for the economy, for example different economic sectors and their composition and how we interact with and govern natural resources and biodiversity. This process is often referred to as the *green transition*. One key component of the green transition is how it can unfold in a just way that protects communities, territories and specific social groups from the potential negative consequences of such policies – or enables their involvement in or empowerment by such processes.

The project *Not Just a Green Transition – Examining the path towards a socially just green transition in the Nordic Region (NJUST)* (2021-2024) is initiated and funded by the Nordic Council of Ministers. The aim of the project is to contribute to a just transition towards a climate neutral Nordic Region. The focus is on exploring perceptions and attitudes among those who are experiencing the change first-hand, and on identifying policies that mitigate the potential negative effects of green transition policies, especially among target groups, i.e. primarily unemployed people and those at risk of unemployment, as well as older adults children and persons with disabilities. The Nordic Council of Ministers identified these groups as potentially vulnerable and the project will specifically address their concerns.¹ Based on an inventory of Nordic policies, a "policy proposal toolbox" containing policies and measures to reduce the negative spatial and social impacts of the green transition will be disseminated across the Nordic countries and self-governing regions. As part of the research, the first step of the project is to outline and define the key working concepts.

This discussion paper is based on a literature review of the *just green transition* in a Nordic, European and OECD setting, via the lens of three interrelated dimensions within this concept: *transition*, *green economy* and *social justice*. The discussion paper starts by outlining the aim and the guiding questions. There then follows a section presenting the research methods and sources of material. Section 4 presents a review of the concepts transition, green economy and social justice, along with an overview of the overarching concept of the just green transition. This is followed by a discussion of its key implications in the Nordic Region. The section concludes with proposals for working definitions of concepts for the NJUST project.

1. The sister project *Ensuring Inclusive Economic Growth in the Transition to a Green Economy (EnIGG)* focuses on the economic impact of the green transition on household economy. The results from EnIGG will be important for NJUST, since the effects on household economy are likely to influence perceptions of justice and a socially just green transition.

2. Aim and guiding questions

The aim of this discussion paper is to systematically assess how a just green transition can be conceptualised and approached in current scientific and grey literature. The review deconstructs and maps key features of three interrelated concepts within the just green transition: *transition*, *green economy* and *social justice*. In doing so, the discussion paper forms the basis for a conceptualisation of the just green transition and its implications for the Nordic Region, and elaborates how key concepts can be defined and deployed in the NJUST project.

The key guiding questions for the literature review are outlined as follows:

1. What are the key features in the current scientific literature regarding the concepts a) transition; b) green economy; and c) social justice?
2. Drawing on the three concepts of transition, green economy, and social justice, how can we understand the concept of a just green transition? How might we frame a just green transition in a Nordic context?
3. How can the project operationalise the concept of a just green transition?

3. Methods and delimitations

The discussion paper targets the concept *just green transition* with a focus on the Nordic Region. The study is conducted via a literature review focusing on identifying the just green transition's key tenets in relation to three interrelated concepts – *transitions, the green economy and social justice* – and their relevance for a just green transition in the Nordic Region.

To identify insights from previous studies, a structured literature search was conducted covering mainly journal articles. Reviewed documents were searched for and selected via Scopus and Google Scholar. The documents were identified and chosen based on a number of keywords, both individually and in various combinations, using the commands AND and OR. The search included title, abstract and keywords.

An initial search was carried out to identify the terminology and concepts associated with a just green transition. The following sets of key words were identified, and a number of these were selected and applied in a variety of combinations: *transition(s); just transition; green transition; green economy; social justice; climate transition; sustainability transition; Nordic Region; Finland; Sweden; Iceland; Denmark; Norway*. Search strings in this scoping can be found in the appendix.

In addition, selection criteria were applied to further delimit the scope of the searches:

- Documents published in English, Swedish, Norwegian, or Danish
- Documents published in peer-reviewed journals
- Research subjects in the following areas (where applicable): *Environmental Science; Agricultural and Biological Sciences; Energy; Social Sciences; Earth and Planetary Sciences; Economics, Econometrics and Finance; Arts and Humanities; Decision Sciences and Business, Management and Accounting; Multidisciplinary*.

To ensure the inclusion of other types of studies, literature from OECD and studies from the Nordic research environments were also collected from other databases.

In the next step, the publications were scrutinised for their relevance to the study aim, themes, methods applied, data used and their connectedness to Nordic, European and OECD research environments. To supplement the number of publications reviewed, any references in the analysed papers that seemed relevant to the study were also checked. In total, 116 journal articles were considered relevant and read. However, not all of these articles are included in this review.

The discussion paper is not intended as primary or original research on just transition or green transitions. Nor does it provide a comprehensive overview of just transition processes in the Nordic Region, as the next step of the project will consist of a comprehensive policy analysis. Instead, it aims to offer an overview of existing scholarly literature. As a result, the findings are richest in areas with the greatest volumes of literature. Most literature and research environments are in OECD countries, such as the US, Canada, and European countries and regions. However, complementary approaches to the just green transition may be found in other research environments, as the boundaries of related systems or aspects vary across the literature reviewed, depending on field or discipline of research. So, while it is

impossible here to do full justice to the theoretical and conceptual development and discussions of transition, green economy and social justice, the intention with this paper is to present a selection of the key recent conceptualisations from a social science perspective that are of relevance to a just green transition in the Nordic Region, with a particular focus on climate-related policies.

4. Review of key concepts

The purpose of this discussion paper is to develop a shared understanding of the concepts associated with a just green transition, with a particular focus on the Nordic context. The work also sets the scene for further reviews of Nordic climate policies and inclusive and just transition processes. The following sections will develop an understanding of the concept *transition* (4.1), drawing on literature on socio-technical transitions and the implications of the transformation of current systems towards sustainability. The second section (4.2) addresses the *green economy*, and what a transition to a green economy may imply, particularly in terms of social inclusiveness and wellbeing, based on myriad of definitions and focuses from different academic environments and policy stakeholders. The third section (4.3) illuminates *social justice*, understood as a contested concept with many interpretations and applications. This section draws particular attention to the concept's application in relation to sustainability and green transition policies. The fourth section (4.4) addresses approaches to the *just green transition* and provides key current examples of the design of such processes.

4.1 Setting the scene for *transitions*

Environmental challenges such as climate change, biodiversity loss, and unsustainable levels of resource deployment and consumption have placed working towards sustainable societies on the international political agenda. Such processes of change are often coined *transitions*, and take place across multiple societal and natural systems within a spatial and temporal setting. The study of these processes has led to the emergence of a research domain, generically known as *transition literature*, that focuses on the motivations, enablers, mechanics, commonalities and specificities of transitions in different sectors (Berkhout, Smith & Stirling, 2004; Geels, 2002; Loorbach, 2007; Smith, Stirling & Berkhout, 2005). Green or sustainable transitions are just one of the various perspectives that have been embraced in order to analyse processes of social or technical change, or *sociotechnical transitions*.

As described by Fuenfschilling & Truffer (2014), transition studies include at least four related research strands, namely: *strategic niche management* (Kemp, Schot & Hoogma, 1998); *transition management* (Loorbach, 2007; Rotmans, Kemp & van Asselt, 2001); both of which can be seen as precursors of the *multi-level perspective approach* (Geels, 2002, 2011; Geels & Schot, 2007); and *technological innovation systems* (Bergek et al., 2008; Hekkert et al., 2007, 2020), with their *sectoral/ industrial* (Breschi & Malerba, 1997; Carlsson & Stankiewicz, 1991) and *territorial* (Asheim & Isaksen, 1997; Lundvall, 2010) variants. All these schools of thought have helped to disseminate the idea that change in complex *sociotechnical systems*² is channelled or expressed via *transitioning processes* – or, more succinctly, *sociotechnical transitions*.

As previously mentioned, the current notion of sociotechnical transitions, as deployed in the transition literature, is mostly based on the multi-level perspective (MLP) framework. This conceptual framework links institutional theory (Scott, 1995)

2. Here, sociotechnical systems are to be understood as multi-dimensional systems involving infrastructural, technological, institutional and cultural elements.

and evolutionary economics (Friedman, 1998), and was initially formulated by Frank W. Geels in a seminal paper published in 2002.³ The core idea of Geels' MLP approach is that large-scale technological transformations, such as those required to move from a fossil economy to climate neutrality, are the consequence of an evolutionary (continuous, but not linear) process of technology substitution that occurs at different levels (Figure 1). Under the MLP framework, transitions are conceived as shifts from one *sociotechnical regime* to another, i.e. from one highly structured sociotechnical configuration to a more evolved one. Geels formally defined the concept of *sociotechnical regimes* as the "semi-coherent set of rules that orient and coordinate the activities of the social groups that reproduce the various elements of socio-technical systems" (Geels, 2011, p. 5). This notion summarises the inertia and path-dependency in prevalent *technology landscapes*, and as such explains why innovations⁴ are not always quickly and smoothly adopted once they become available (Fuenfschilling & Truffer, 2014).

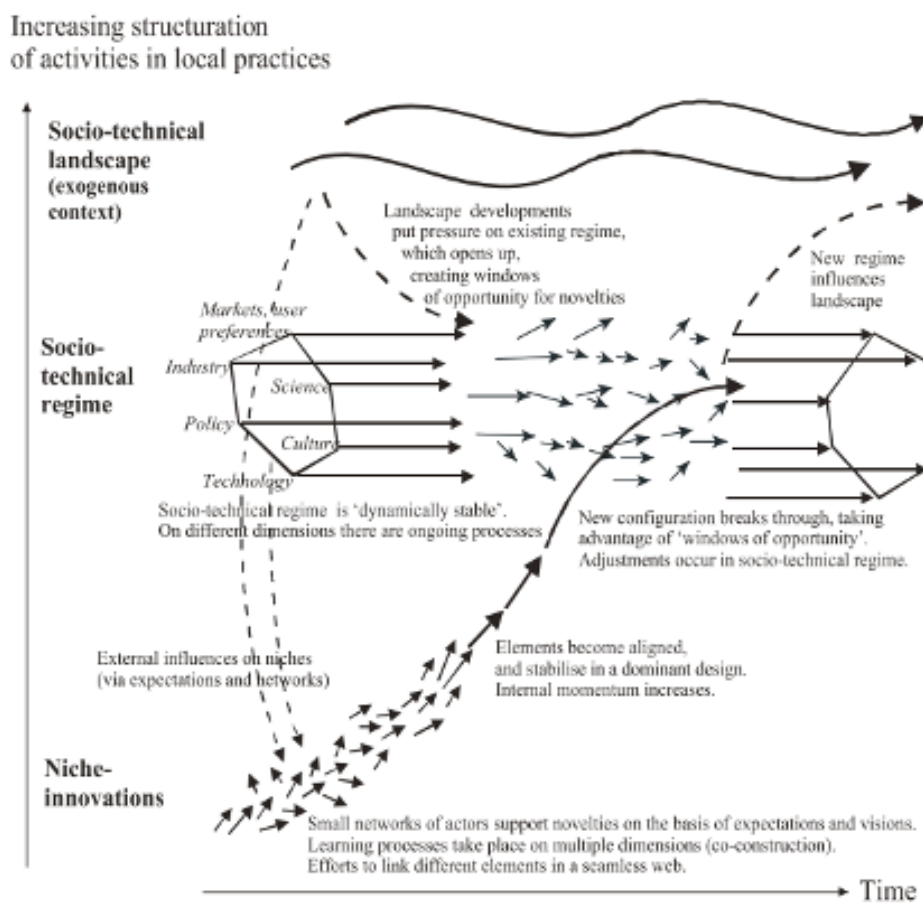


Figure 1: A multi-level perspective on transitions, according to Geels (2011)

3. However, most of the notions and concepts coined by Geels are based on concepts developed in the 1990s by scholars working in the fields of environmental innovation (e.g. Kemp (1994, 1997), Rennings (1998) and Popp (1997) and technological innovation systems (Breschi & Malerba, 1997; Carlsson & Stankiewicz, 1991).
4. Innovations should be understood in the broad sense, covering not only technological developments, but also softer solutions, such as those typically adopted by grassroots (Seyfang & Smith, 2007) and frugal (Basu, Banerjee & Sweeny, 2013) forms of innovation.

Against this conceptual backdrop, recent research on transitions in relation to sustainable development and climate mitigation is expanding rapidly, with contributions from many fields, using different approaches and terminology. There is a strong interdisciplinary legacy within the literature on transitions, and many works use more or less similar terms, yet apply dissimilar meanings. For example, Loorbach et al. (2007) argue that "the term transition is broadly used in many scientific disciplines and refers to a nonlinear shift from one dynamic equilibrium to another" (p. 600). In defining transitions, these authors posit that "Transitions in their literal sense refer to the process of change from one state to another", and that the "core idea in transitions research is that disruptive systemic change can be located in so called regimes: the dominant order in a societal (sub)system" (referring to Geels, 2005; 2008). Much of the literature in this field has particularly elaborated on industry transitions or technology transitions with regard to firms, business cycles and innovation. However, in recent years, there has been an increased focus on more holistic and broader transition processes, encompassing social, technological or economic systems within and across a variety of sectors that work with sustainable development. As we have seen, these are frequently rendered as *sociotechnical systems* (Geels, 2010). These are nested systems that encompass market structures, consumer patterns, institutional, regulatory or governance models and infrastructure (Meadowcroft, 2009; Smith et al., 2005). This perspective led to a broader focus on addressing large-scale societal change and sustainability (Loorbach, Frantzeskaki & Avelino, 2017). Loorbach et al. (2017) also add two more perspectives to the study of transitions, namely a *socio-institutional approach* and a *socio-ecological approach*. The former emphasises political and institutional change, while the latter primarily addresses the ecological thresholds of systems and change, with focus on resilience and the transformative and adaptive capacity of ecological systems.

All these complexities make sociotechnical transitions in general, and sustainability transitions in particular, extremely difficult to plan, steer, manage, govern and ultimately engineer, even at the most basic level (Shove & Walker, 2010). Not least, transitions can materialise via different *pathways*, depending on the frequency, amplitude, speed, scope and type of changes (Geels & Schot, 2007). The emphasis on the complexity intrinsic to the social components of sociotechnical transitions has also been posited by de Haan (2010), who states that "transitions occur in societal systems which are undoubtedly complex and, moreover, transitions themselves are complex phenomena" (p. 14). These societal systems are embedded at various levels of governance and in a range of societal realms. There is also an increased focus on agency and pressures in transitions, understood as the regimes or governance systems that enable system-level change (Smith et al., 2005). As mentioned, there has been an increasing focus on transitions in the context of sustainable development. The literature in this area usually defines sustainable development with reference to a set of goals or targets that encompass different aspects of society and the economy, and their impact on the climate and environment. Governance regimes play a central role in outlining these targets and pathways. However, in such long-term transitions, governance, policies and politics do not always play linear and straightforward roles. Rather, they are often complex, even conflictual and disjointed processes, as Meadowcroft (2009) finds in relation to long-term energy transitions.

In general, the reviewed literature points out that transitions can be understood as profound structural changes in a variety of aspects of the functioning of societal and sociotechnical systems. However, spatio-temporal boundaries also influence and

limit those systems (de Haan, 2010). Coenen et al. (2012) emphasise the spatial dimension of transitions towards sustainable sociotechnical systems, underlining the relevance of the institutional embeddedness of socio-technical development processes within specific territorial spaces, and the need for an explicit, multi-scalar conception of sociotechnical trajectories. An increasing body of research focuses on geographically delineated systems in transition, such as cities, socio-ecological systems and new types of economic systems (Loorbach et al., 2017).

Finally, it is worth mentioning that the transition literature stemming from the MLP framework has produced a structured model (a grammar) for studying sociotechnical transitions and understanding sustainability transitions. However, this does not by itself provide causal narratives capable of illuminating *any possible* transition. In Geels' words: "The focus on patterns and mechanisms may enable transitions research to articulate an epistemological middle way between on the one hand the search for laws and statistical correlations between variables (as in mainstream social science), and on the other hand an emphasis on complexity, contingency, fluidity, untidiness and ambiguity (as in constructivist micro-studies)" (Geels, 2011: 36).

4.2 Key features of the green economy

As discussed in the previous section, there has been an increased focus on transition processes across a variety of sectors with regard to sustainable development. The need to mitigate and adapt to climate change, protect biodiversity and stop environmental degradation has spurred debate about how best to transition to a greener economy (OECD, 2021). Academics and policy-makers refer to this process as the "green transition" or "green economy transition" (Potts, Niewiadomski & Prager, 2019). The concept implies, as with transitions, a designed or engineered "green" transformation of economic, technological, social, ecological and governance-related systems aimed at reaching climate or sustainability-related goals.

At the heart of the green transition lies the goal of achieving a "green economy" – a term first coined in a report by the London Environmental Economics Centre in 1989 (Pearce, Markandya & Barbier, 1989). Two years later, Jacobs (1991) further conceptualised the term. It was used to describe an economic context in which prosperity and social equality increase, while pressures on the environment and ecological damage simultaneously decrease (Denona Bogovic & Grdic, 2020). The concept of the green economy therefore entails an economic system that not only no longer leads to inequality and ecological exploitation, but precisely helps to prevent these outcomes (UNDESA DSD, UNEP, & UNCTAD, 2011).

A closely related concept is "green growth" (Gunashekar et al., 2021). The World Bank (2012) defines economic growth as green if it is "efficient in its use of natural resources, clean in that it minimizes pollution and environmental impacts and resilient in that it accounts for natural hazards". The green economy concept is based on a vision of green growth, and the boundary between the two remains somewhat blurry (Merino-Saum et al., 2020).

The green economy concept lost its prominence as the concept of sustainable development gained momentum at the Rio Summit in 1992 (Merino-Saum et al., 2020). However, it regained attention during the financial crisis of 2008, when leading international organisations such as the OECD, the UN Environment

Programme and the World Bank saw it as a solution that could be deployed to tackle not only economic and financial turbulences, but also environmental challenges and the climate crisis (Merino-Saum et al., 2019, Sabato & Fronteddu, 2020). The green economy and sustainable development are sometimes presented as opposing concepts. Loiseau et al. (2016) argue that the boundaries between the concepts are not always clear. Nonetheless, UNDESA, UNEP & UNCTAD (2011) argue that both concepts in fact overlap, and are in principle consistent with each other. The green economy concept emphasises the economic aspects of sustainability, and acknowledges that a more sustainable world "rests almost entirely on getting the economy right" (UNEP, 2011).

In 2019, the European Commission, under President Ursula von der Leyen, published the *European Green Deal*. This strategy seeks to maintain economic growth while simultaneously reaching climate neutrality in Europe by 2050, reducing waste and pollution, moving to a circular and resource-efficient economy, and stopping the loss of biodiversity. The European Green Deal also stresses the importance of achieving a "just transition", in which no person or region is left behind (Sabato & Fronteddu, 2020). In order to buffer employment and other socioeconomic effects of the green transition, the European Commission has created the *Just Transition Mechanism* (OECD, 2021). The European Green Deal underpins the European Commission's approach to facilitating and speeding up the green transition in Europe (Elliott et al., 2020).

Academics and policy-makers stress that the transition towards a green economy requires fundamental changes in a broad range of areas. Some of the most frequently mentioned (UNEP, 2011, Gunashekar et al., 2021) are as follows:

First, a green economy is one that has low levels of carbon or is even carbon-neutral. The green transition therefore encompasses a *transition to a fossil-free society*. This transition necessarily involves all sectors of the economy, but sectors such as energy and transport, construction and industry as well as agriculture and forestry are of particular importance. New technologies and green innovation are considered vital to achieving a fossil-free transition. Important research areas revolve around topics such as energy-efficiency, renewable energy sources, electrification and energy storage (Gunashekar et al., 2021, Bjerkesjö et al., 2020).

Second, the green transition also requires shifting from a *linear to a circular economy*, based on a more efficient use of natural resources and more sustainable patterns of production and consumption. A range of activities and innovations have been proposed to drive this part of the green transition. For instance, greater interconnection across value chains and industries will be needed to ensure better reuse of by-products and waste products. The move towards a circular economy will also require changes to attitudes, consumer habits, business models and even laws and regulations, which at present are not always conducive to circular systems (Bjerkesjö et al., 2020; Gunashekar et al., 2021).

Third, the green economy concept emphasises the *importance of social inclusiveness* and focuses on how to mitigate potential impacts of the green transition on the income, employment and welfare of different population groups and across regions. Parts of the discussion around the socially inclusive green economy have also revolved around the question of whether economic growth – and indeed, green growth – should still be a goal for national economies. A range of critics assert that the focus should be on fairness and social equality. They argue that endless growth is not possible on a planet with finite resources, and that the green transition should therefore focus on degrowth strategies or, alternatively, find ways to decouple growth from resource extraction (UNDESA, UNEP & UNCTAD, 2011; Denona Bogovic

& Grdic, 2020, Elliot et al., 2020).

Overall, the concept of the transition to a green economy (or *green transition*) is widely endorsed, and there is increasing agreement on the defining characteristics of a green economy. Nonetheless, a single, broadly accepted definition of the green economy concept has not yet emerged. The exact meaning of the term remains blurry and contested (Merino-Saum et al., 2020; Bjerkesjö et al., 2020; Tanner Nygaard et al. 2019). Furthermore, the term "green" has itself been associated with a variety of meanings. Referring to Tanner Nygaard et al. (2019), Wøien Meijer & Peter (2021) argue that the "green" concept is dynamic, and that its definition is dependent on its application. In an English context, and more specifically, in the adjectival form related to politics, the *Cambridge Dictionary* defined it as "relating to the protection of the environment" (Cambridge University Press, 2022). In the *Oxford Dictionary*, it is defined as "concerned with the protection of the environment; supporting the protection of the environment as a political principle" (Oxford University Press, 2022). However, few sources specify the types of outcomes associated with "green", and what is considered "green" may change over time and depend on different institutional contexts (Wøien Meijer & Peter, 2021).

Table 1 provides an overview of some of the ways in which the green economy has been defined during the last decade. While some elements are common to several definitions – e.g. a focus on quality of life and wellbeing – others are less frequently mentioned, e.g. consideration of the planet's ecological limits and biodiversity-related issues. Ongoing academic and policy debates also revolve around complex governance questions, such as how and on what scale the green transition will emerge, who will drive it, and which actors will govern and finance it (Potts, Niewiadomski & Prager, 2019).

| Source | Year | What is a green economy? |
|-----------------------------------|------|---|
| UNEP | 2011 | "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. [...] In a green economy, growth in income and employment should be driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services" (p. 2) |
| UNCTAD | 2011 | "An economy that results in improved human well-being and reduced inequalities, while not exposing future generations to significant environmental risks and ecological scarcities."* |
| Green Economy Coalition | 2011 | "Green economy is a resilient economy that provides a better quality of life for all within the ecological limits of the planet."** |
| International Chamber of Commerce | 2011 | "An economy in which economic growth and environmental responsibility work together in a mutually reinforcing fashion while supporting progress on social development."*** |
| Danish 92 Group | 2011 | "The Green Economy is not a state but a process of transformation and a constant dynamic progression. The Green Economy does away with the systemic distortions and dysfunctionalities of the current mainstream economy and results in human well-being and equitable access to opportunity for all people, while safeguarding environmental and economic integrity in order to remain within the planet's finite carrying capacity." (p. 6) |
| Potts, Niewiadomski & Prager | 2019 | "Green transitions [...] are defined as multi-dimensional shifts from one distinctive socio-technical configuration or technology to another. Importantly, such transitions encompass not only technological shifts, but also adequate forms of institutional and political restructuring, as well as various corresponding changes in user practices, cultures and markets." (p. 359) |
| Denona Bogovic & Grdic | 2020 | "Green economy aims to achieve macroeconomic growth while simultaneously ensuring development in the form of employment, reduction in national and regional inequalities, increase the standard of life and the health of both people and the environment." (pp. 2-3) |

Table 1: Definitions of the 'green economy' concept

* As quoted in Denona Bogovic and Grdic (2020, p. 3)

** Ibid, p. 3

*** Ibid, p. 3

4.3 Key features of *social justice*

In the policy landscape and literature related to the transition to a green economy (the *green transition*), the importance of achieving a *just transition* in which no person or region is left behind has been highlighted. At the heart of the just transition lies the concept of "justice", a contested term that has long been discussed and debated in both philosophical and political settings. "Social justice" emerged as a term during the 19th century, and was reflected in the development of a justice-based political discourse, often in the context of the distribution of income and wealth (Jackson, 2005). However, the term encompasses a wide variety of positions. Drawing on Gallie (1964), social justice does not have one sole meaning, but several conflicting interpretations and applications that should be considered on their merits when, e.g. studying the social justice effects of the green transition.

Rawls (1971) has had a strong influence on the social justice debate. In his theory of

justice, Rawls (1971) formulates two guiding principles that build upon one another: (1) equal rights to equal basic liberties; and (2) that social and economic inequalities should be distributed to advantage the least advantaged (the difference principle), and equal opportunities to positions and offices should be granted (the equal opportunity principle).

Some key strands in the debate and deployment of social justice dimensions can be identified in the current literature related to transitions and sustainability research. There has been an increase in the number of academics shifting away from merely addressing distributional justice issues (e.g. distribution of the burdens and benefits of certain policy outcomes) and towards procedural aspects and recognitional approaches (i.e. encompassing participatory processes and inclusion in agenda-setting or decision-making processes). A broader conception of justice emphasises that injustice also results from social structures, cultural beliefs and institutional domination or subordination – which, if left unaddressed, can perpetuate injustices (Cambou, 2020). Moodie et al. (2021) elaborate on the tension between the distributional and procedural “paradigms” of justice, i.e. the distribution of burdens and benefits, as well as involvement in and the ability to influence decision-making processes. These paradigms are increasingly considered mutually dependent when addressing justice issues, and must be taken into account in relation to each other (Moodie et al., 2021).

McCauley & Heffron (2019), in their study of energy justice in the transition to low-carbon energy systems, expand on commonly applied tenets of justice (*distributional, recognitional and procedural*) with the addition of *cosmopolitan justice*. The authors argue that these are the dominant forms of justice mentioned in the literature. *Distributional justice* describes where the key impacts are located or distributed, taking into account potential temporal variations of impacts, including on future generations. In their discussion of *recognitional justice*, the authors elaborate on which groups or sections of society are recognised or neglected in policy processes. *Procedural justice* unites distributional and recognitional justice, and entails formal and informal forms of involvement in decision-making processes. Finally, *cosmopolitan justice* argues that principles of justice should apply universally to all human beings, regardless of their nation or region of belonging (McCauley & Heffron, 2019). Within this framework, the authors suggest that “cosmopolitanism holds that ethical responsibilities apply everywhere and to all moral agents capable of understanding and acting on them, not only to members of one community or another” (p. 7). These tenets highlight the role of universally agreed principles for addressing justice, such as the United Nations Declaration of Human Rights and its application. Nonetheless, there are research gaps when it comes to how such globally articulated principles – or, as Lawless and colleagues (2020) put it, “social meta-norms” – affect action at other scales of governance (Lawless et al., 2020).

One common critique of these tenets of social justice concerns the lack of recognition of spatial aspects, i.e. spatial differences and heterogeneity of justice across different geographies. Spatiality plays a key role in social justice (Dikeç, 2001), and there are many examples in different contexts, such as the apartheid regime, gated communities, exclusionary design, the dislocation of immigrants or other exposed groups, or socio-economically disfavoured urban or rural areas that lack adequate services and welfare functions (Nordberg, 2020). Dikeç (2001) elaborates on two interpretations of spatial justice. The first is the locational aspect of physical infrastructure and unevenly distributed social or economic relationships. The second is the possibility of mounting a political response to policies or societal change in different places or geographies. In this context, different types of geographies – e.g. urban, rural or socio-economically disadvantaged areas – should be taken into

consideration when analysing cases involving justice. As such, the spatial justice perspective plays a particularly important role, which Nordberg (2020) summarises as follows: "geography exercises influence over social circumstances, and such circumstances are ignored if the spatial aspect goes unnoticed regarding the concept of justice" (p. 48). The OECD (2021) echoes the importance of addressing the spatial dimension, e.g. arguing that rural communities are particularly vulnerable to climate change because of their specialisation in resource-based economies, and that remoteness, limited economic diversity and ageing populations risk exacerbating this vulnerability.

Which criteria to apply when assessing and addressing justice concerns – in other words, what is "just" and for whom – depends on the philosophical and political positions taken, and has implications for how policies are formulated and adopted. Bennett and colleagues (2019) look at concepts such as transformations, just transitions and social justice literature, and elaborate on the different philosophical positions on equity, which in turn influence the construction of "justice". These different positions on preferred notions of equity include: a) *utility* (actions that produce increases in aggregate goods or improve overall human well-being); b) *equality* (all parties have equal opportunities); c) *proportionality* (potential losses and gains should be proportional); d) *needs* (preferential treatment should be given to the most vulnerable); e) *merit* (different parties ought to receive what they deserve based on their effort or input, e.g. reaping the benefits of their actions or change processes, also known as "just desserts"); and finally f) *rights* (the treatment of different groups should ensure that a minimum threshold of basic human rights are respected) (Bennett et al., 2019). Like the overarching concept of social justice, these criteria are debated and understood differently across cultural, political, and philosophical contexts (Teitje & Cresap, 2018).

Social justice in relation to sustainability transitions

As discussed in the section above, it is commonly understood that in order to achieve environmental outcomes, it is also crucial to pay attention to the social dimensions of environmental sustainability. Policy measures and actions aimed at environmental sustainability, and the transformations arising from these, will have both positive and negative social consequences (Carley & Konisky, 2020; Bennett et al., 2019; OECD, 2021).

However, while there have recently been increasing calls for a sustainable and just transition, little attention has been paid to the actual meaning of justice in the green transition (Cambou, 2020). In the literature reviewed, the justice dimension, when considered in the context of sustainability transitions, is multi-faceted. It comes into play when, for example, addressing potential trade-offs to be made in climate policy and action, and when dealing with the effects of climate change.

McCauley & Heffron (2019) argue, for example, that within climate, energy and environmental communities, different academics conceptualise justice in their own distinct ways, and have their own versions of justice, i.e. *environmental justice*, *climate justice* and *energy justice* – the three pillars of the green transition. Environmental justice refers to the aims of involving actors with different perspectives in the development and implementation of environmental regulations and policies. Climate justice addresses the sharing of burdens and benefits associated with climate change and related policies (McCauley & Heffron, 2019). The literature in this area is vast, and frequently addresses the human rights perspective.

Thirdly, energy justice is related to the application of human rights with regard to energy transitions or green transitions focusing on the energy sector (McCauley & Heffron, 2019). Here again, we find a strong body of literature in the context of the transition from fossil fuels to renewable energy, with a focus on the right to affordable energy and access to sustainable energy infrastructure. However, less consideration has been paid to the distributional inequalities that may be exacerbated by the energy transition (Cambou, 2020).

With regard to justice in sustainability transitions, strategies for environmental sustainability often come into conflict with efforts to allocate economic and environmental burdens and benefits more equitably. Such conflicts may relate to a) ensuring maximum environmental impact at the lowest cost; and b) ensuring social justice in the allocation of public resources. The second form of conflict arises between sustainability strategies intended to reduce the impact of the economy on the environment, and social justice strategies aimed at improving economic conditions for marginalised or vulnerable groups (Ciplet & Harrison, 2020).

As elaborated earlier in this discussion paper, the green transition is expected to produce both positive and negative socioeconomic effects. Sovacool et al. (2021), studying the justice and equity implications of low-carbon transitions in France, Germany, Great Britain and Norway, point out that political responses to climate change may spur increasing economic inequalities, unemployment, human rights abuses and other types of externalised impacts on different societal groups. In this context, some individuals and societal groups are more vulnerable than others (Carley et al., 2018; Sovacool et al., 2021). In a study of the benefits and costs of environmental policies, the OECD (2021) finds that green transition policies can have more negative impacts on certain socioeconomic and demographic groups and regions.⁵ Such impacts may arise, for example, from costs associated with energy and carbon pricing. However, at the same time, it is argued that costs for air pollution and climate change impacts are already disproportionately distributed, and that disadvantaged groups may, in the long run, benefit from policies that successfully ameliorate these impacts (OECD, 2021). This poses considerable challenges to policy-makers, in terms of connecting the abstract, complex, and non-linear processes of climate change to efforts aimed at addressing vulnerability or equitably distributing the co-benefits of climate action.

Energy justice is a commonly used framework for understanding how vulnerable groups are impacted within these sectors or areas in energy transitions. Sovacool et al. (2021) argue that much of the literature focuses on sectors such as land use, financing or jobs and employment, and on how injustices or impacts in energy transitions are distributed across and within different groups. Furthermore, several papers focus on cultural and identity-related aspects of environmental justice (Fraser, 1998). Within the context of energy and sustainability transitions, one example of this is the consideration of indigenous peoples' rights (Cambou, 2020).

5. Focusing on individuals and households (in particular, lower socio-economic households); children and young people; the older adults; differential impacts of air pollution and climate change, by gender; and workers, regions and communities (OECD, 2021).

4.4 A just green transition

As elaborated in the paper, there are many interpretations of the green transition or “transition to a green economy”. Broadly, however, it refers to a transformation or shift to a low-carbon economy. There are also some common elements across the definitions, e.g. a focus on quality of life, wellbeing, preservation of biodiversity, and the role of ecosystems and their services. The emphasis on wellbeing and an inclusive transition process, together with the justice debate, has led to the emergence of the *just green transition*. This entails an increased focus on the socio-economic aspects and the implications of the development towards a more sustainable society and the transition to a low-carbon economy. It also highlights growing concern about how best to support people affected by the transition (Velicu & Barca, 2020; McCauley & Heffron, 2019). This overarching concept is made up of several theoretically contested concepts, each of which is subject to considerable variability in terms of interpretation. The *just transition* is one of them.

The idea of the just transition has gained traction in scientific literature over the past decade. While there are many definitions and ways of addressing the just transition, two main approaches predominate. The first is that the just transition concept originates from and is strongly embedded in the labour movements of recent decades. More specifically, the concept of a just transition originates in the US labour union movements of the late 20th century, where workers and communities, with their livelihoods at risk from disarmament processes, demanded support in the form of a just transition fund from the state. Other labour movements later made similar demands in response to the shift away from fossil-fuel-based activities (Abraham, 2017; CSIS & CIF, 2020). The second approach addresses broader movements or transition processes that build on social justice and equity to advance the climate agenda (Healy & Barry, 2017). Within the first approach, the concept has increasingly gained traction, not least in global climate policy, as incorporated in the Rio+20 Earth Summit, as well as in the preamble of the Paris Agreement, formulated as “the imperative of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities” (UNFCCC, 2015: 21). The International Labour Organisation (ILO) defines it as “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” (ILO, 2015).

Within the second, broader approach to just transitions, Pinker (2020) explores how the US, Canada, Germany, Norway, and Peru have approached and embedded this concept. In doing so, he identifies three principles associated with literature on the just transition: a) the alignment of energy transitions with climate goals and social equality; b) participatory green transition; and c) transition measures aimed at addressing systemic change, applying both distributive and procedural justice principles. Pinker asserts that transition processes should be regarded as an opportunity to address more systemic injustices in the current fossil fuel-based societal paradigm (Pinker, 2020). However, there are several examples of how just transitions can differ in terms of both definition and focus. For example, McCauley & Heffron (2018) define the just transition as “a fair and equitable process of moving towards a post-carbon society” (p. 2). Sabato & Fronteddu (2020) state that the just transition approach “focuses [...] on the need to consider employment and social concerns in the transition towards a more sustainable economic model” (pp. 7–8), drawing on the role of just transition in the implementation of the European Green Deal. Drawing on a literature and policy study of social impacts of climate change

mitigation policies, Markkanen & Anger-Kraavi (2019) describe how the concept of the just transition “emerged to stress the need for equity and fairness to underpin the transition to a low-carbon economy” (p. 3), and direct their focus towards the outcome-based aspects of equity in low-carbon transition. These different conceptualisations also format the end goal or outcome of the transition in different ways, e.g. a “low carbon-economy”, “greening the economy”, a “sustainable economic model” and a “post-carbon society”.

At present, one of the most comprehensive efforts to incorporate the just transition into policy-making and public funding in a European context is the Just Transition Mechanism, which forms one of the pillars of the European Green Deal. Defined as “a key tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind”, the Just Transition Mechanism provides territorially targeted financial support, which is channelled via the Territorial Just Transition Plans to the European regions facing the most negative socioeconomic impacts (European Commission, 2021). In their study of the development of Swedish Territorial Just Transition Plans, Moodie and colleagues (2021) show that a key challenge associated with addressing just transition efforts and implementing such plans is that the economic and technical imperatives risk overshadowing the social aspects. Other challenges arise when applying a spatial perspective to multi-scalar governance aspects and addressing different societal groups (Moodie et al., 2021). A study of the development of territorial just transition plans in Polish coal regions identifies some of the challenges of integrating the local community into these large-scale processes (Nowakowska, Rzeńca & Sobol, 2021). There are also other examples of formulations or policy efforts at global level that have a less territorial focus, such as the “Leave No-one Behind Principle” of Agenda 2030, but which are nevertheless universally applied and translated into different spatial contexts.

As we have seen in this discussion paper, the definitions of the just transition and the just green transition depend on the context and the perspective taken. Personal beliefs and attitudes relating to the creation of green jobs, consumer-based capitalist societies and market-based solutions influence the interpretation of these concepts (Velicu & Barca, 2020). The just transition and the just green transition are applied in a variety of contexts and are, both as concepts and as processes, associated with a range of interpretations and normative stances. This paper seeks to address the potential implications of these for the Nordic Region, as well as develop a working definition that draws on the different concepts and approaches – both contested and broadly endorsed – to the just green transition.

4.5 What are the key implications for the Nordic Region?

The Nordic countries have an extensive shared history, which has influenced their development. Today, we see this most clearly in the proximity of several of the Nordic languages, as well as in their values, social norms, cultural practices and institutional structures.

In an international comparison, the Nordic countries have many similarities with regard to legislation, institutions and policy – not least in the labour market, welfare and social policy area, in which these commonalities are often branded as the “Nordic model” (Hilson, 2013). While the principles of universality, equality and

inclusion inform policy in different sectors and at all levels across the Nordic Region, it is important to acknowledge that there is not one uniform Nordic welfare model, but several (Anttonenet al., 2014; Lundgren et al., 2020).

These similarities and differences make it particularly relevant for the Nordic countries to compare themselves with each other and share best practices. However, the similarities with regard to welfare policy, the provision of services and the wellbeing of the Nordic inhabitants in all parts of the Nordic Region can be assumed to have implications for how we understand the just transition and the just green transition.

Hence, based on the strong welfare systems in the Nordic countries, it can be assumed that "social justice", seen from both a distributive and a procedural perspective, would be perceived as very important among the Nordic populations in general. It may also be assumed that the recognitional perspective on justice is perceived as relevant when talking about different social and ethnic groups (although this also forms part of procedural justice), and that the perspective of cosmopolitan justice is perceived as relevant for those who primarily approach issues of justice in the context of international solidarity. Traditionally, the Nordic welfare systems have played an important role in sustaining and facilitating socio-economic transitions with large labour market effects (Alsos & Dølvik, 2021). It can also be assumed that Nordic populations in general would have similar expectations regarding the green transition, and especially the socioeconomic effects of the green transition. In an assessment of national strategies related to the green economy in Denmark, Norway and Sweden, Khan, Johansson & Hildingsson (2021) find that welfare, equity and distribution are addressed to a limited degree in these documents, but more frequently in strategies related to Agenda 2030 and sustainable development. As such, the authors argue that the Nordic welfare systems are taken for granted in transition processes.

All of the Nordic countries are committed to combatting climate change via the Paris Agreement, and to ensuring sustainable development through the Agenda 2030 framework and the 17 Sustainable Development Goals (SDGs). Each country also has its own national goals for achieving sustainability, preserving the environment and tackling climate change. However, the Nordic countries apply different terminology in their climate work and formulate their climate targets differently depending on territorial context, industries, governance traditions, path dependencies, energy use and energy landscapes. The countries also focus to varying degrees on the importance of the natural ecosystems as carbon sinks. The differences between the countries are clearly illustrated by the sheer variety of green policy instruments for different sectors, such as transport, housing, and energy transition (Weber & Søyland, 2020; Sovacool, 2017).

In a baseline report for the Nordic Council of Ministers, Ramboll Management Consulting (2021) provide a framework for evaluating the progress towards implementing the Nordic Vision 2030. They conclude that the green transition poses a significant challenge for the Nordic Region, and emphasise the need to accelerate progress to reduce greenhouse gas emissions. There are also challenges associated with protecting nature and biodiversity in some areas. Although the report addresses social inequality, it does not offer any conclusions regarding inequalities arising from the green transition in the Nordic Region. The authors emphasise the lack of data in this area, but argue that the link between competitiveness and social inclusion in relation to the green transition has gained traction in the Nordic policy landscape. They posit that assessments of regional inequalities and inequalities

related to greenhouse gas emissions are key areas for further study (Nordic Council of Ministers, 2021). The NJUST project thus plays an important role in furthering the understanding of how the social justice element can be applied in the just green transition, and when assessing which climate policy tools should be central to the analysis.

As part of this project, an upcoming paper will present an overview of the climate policy landscape of each Nordic country, as well as a literature review on the potential social impacts of climate policies, and how these may be of particular relevance in the Nordic countries.

5. Working definitions

As we have seen in this paper, the transition to a green economy and the just green transition are based on contested concepts with different interpretations. It is therefore important to identify a research-based working definition that can be applied in the research conducted within the project *Not Just a Green Transition (NJUST)*.

From a climate mitigation and adaptation perspective, "**transitions**" should be understood as multi-dimensional processes of sociotechnical change. These affect markets, infrastructures, and technologies, but also imply and affect institutional, cultural, social, spatial and behavioural aspects. Sociotechnical transitions are complex (they involve systemic change), nonlinear, non-necessarily incremental, and their trajectories are not entirely predictable. They can lead to very different outcomes in terms of not only economic and environmental efficiency, but also the stability and durability of the newly established sociotechnical regimes. The strategies designed for climate mitigation – and to a large extent, those developed for climate adaptation – are based on the idea that sociotechnical transitions can be engineered.

As elaborated in section 4.2, a just green transition encompasses the **transition to a green economy**. In this paper, the green economy is defined as "an economic context in which prosperity and social equality increase while pressures on the environment and ecological damage simultaneously decrease". As such, the green transition also takes into account the social justice perspectives of the transition. The *NJUST* project will focus on the impacts of the green transition on four particular social groups: unemployed people and those at risk of unemployment; older adults; children; and persons with disabilities. Gender and spatial perspectives will also be taken into account as cross-cutting perspectives. As we have seen in this discussion paper, the concept of justice is approached from different perspectives, both in the research literature and in public opinion more generally.

The *NJUST* project will also explore *perceptions* of the just green transition. Based on the research literature, we will be open to different understandings of the just green transition (e.g. based on distributional, recognitional, procedural or spatial justice, and also with regard to future generations and territories outside the Nordics). One important part of this project will consist of accumulating knowledge of how individuals and different groups perceive a just green transition, and which types of justice arguments are formulated.

In the second phase of the project, which focuses on how *climate policies* aim to take **social justice** into account, we will apply and focus on four types of justice: distributional, recognitional, spatial and procedural. The motivation for this is that these types of social justice are interconnected and as such should be analysed in relation to one another (see e.g. Moodie et al., 2021; McCauley & Heffron, 2018). Furthermore, these concepts will be related to the focus of this study and the social groups selected (i.e. unemployed people or those at risk of unemployment, older adults, children and persons with disabilities).

Against this backdrop, this project's **proposed working definition of a just green transition** is as follows: "**A just green transition is defined as a process of far-reaching sociotechnical change leading to a more sustainable future, implying a climate-neutral Nordic Region, while preserving biodiversity and ensuring social justice.**"

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Appendix

Results of the SCOPUS review

"Just transition"

374 document results (2021-11-01)

String: TITLE-ABS-KEY ("just transition") AND (LIMIT-TO (SUBJAREA , "ENVI") OR LIMIT-TO (SUBJAREA , "AGRI") OR LIMIT-TO (SUBJAREA , "ENER") OR LIMIT-TO (SUBJAREA , "EART") OR LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "MULT") OR LIMIT-TO (SUBJAREA , "ARTS") OR LIMIT-TO (SUBJAREA , "DECI") OR LIMIT-TO (SUBJAREA , "SOCl"))

Time distribution of publications on "just transition"

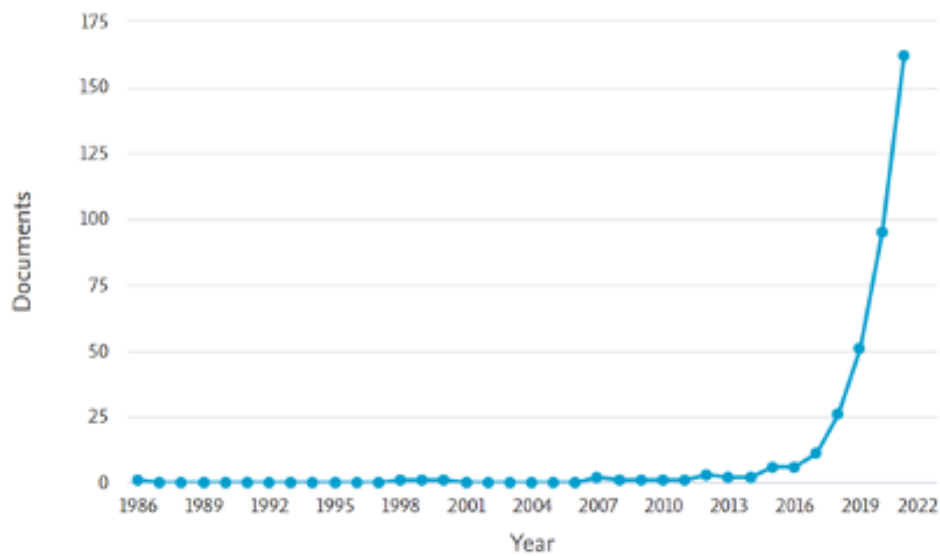


Figure 2: Time distribution of publications on "just transition"

Source: SCOPUS 2021.11.01

Research areas most covered by the published documents on “just transition”

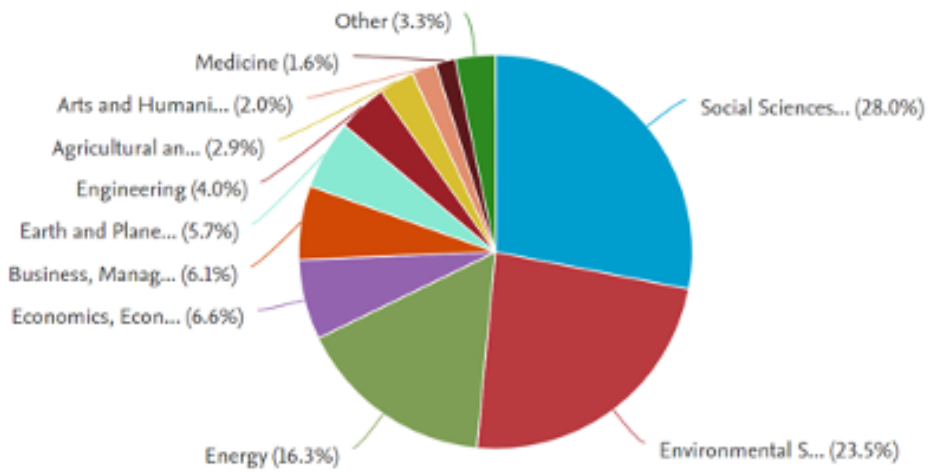


Figure 3: research areas most covered by the published documents on “just transition”

Source: SCOPUS 2021.11.01

Documents on “just transition” by country/territory

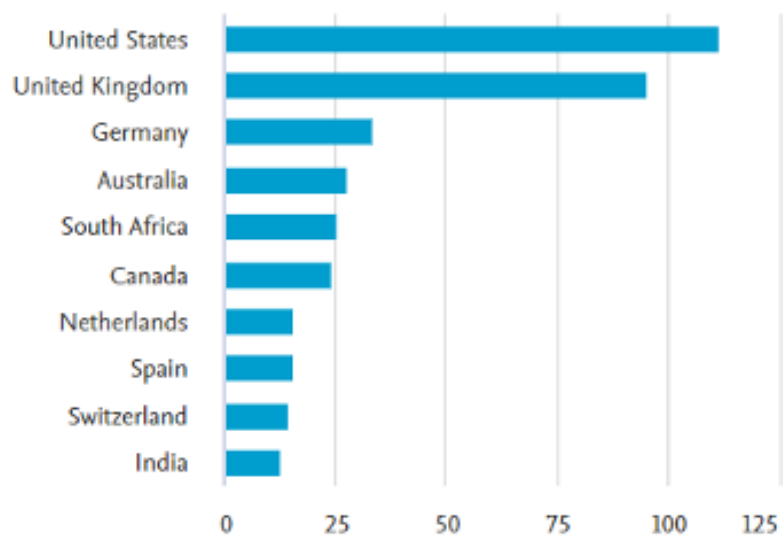


Figure 4: Documents by country/territory on “just transition”

Source: SCOPUS, 2021.11.01

"Green transition"

190 document results (2021-10-29)

String: TITLE-ABS-KEY ("green transition") AND (LIMIT-TO (SUBJAREA , "ENVI") OR LIMIT-TO (SUBJAREA , "AGRI") OR LIMIT-TO (SUBJAREA , "ENER") OR LIMIT-TO (SUBJAREA , "EART") OR LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "MULT") OR LIMIT-TO (SUBJAREA , "ARTS") OR LIMIT-TO (SUBJAREA , "DECI") OR LIMIT-TO (SUBJAREA , "SOCI"))

Time distribution of publications on "green transition"

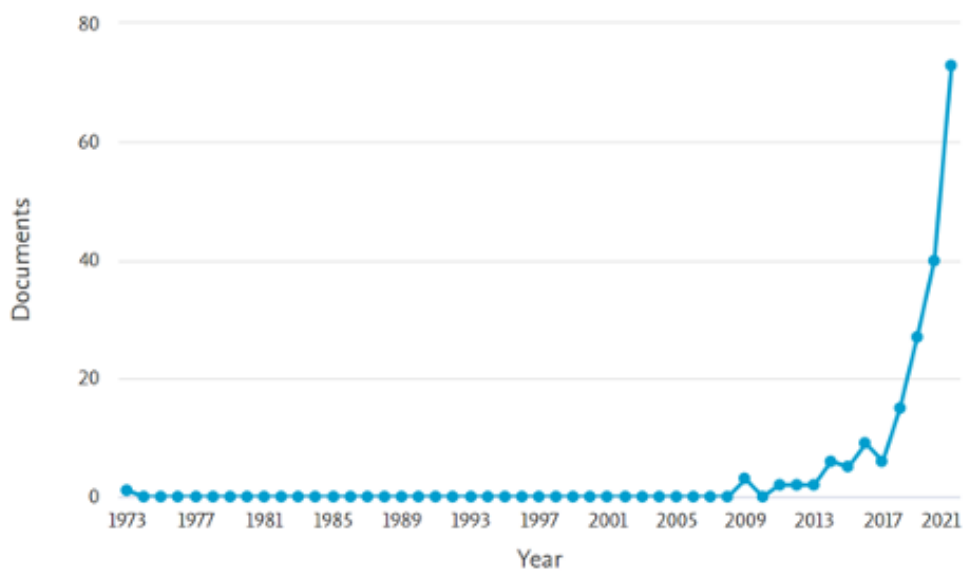


Figure 5: Time distribution of publications on "green transition"

Source: SCOPUS, 2021.10.29

Research areas most covered by the published documents on "green transition"

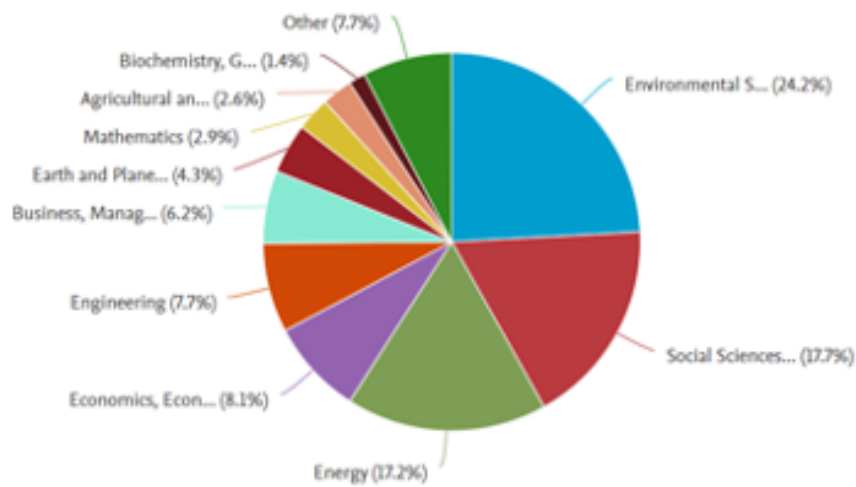


Figure 6: research areas most covered by the published documents on "green transition"

Source: SCOPUS, 2021.10.29.

Documents on "green transition" by country/territory

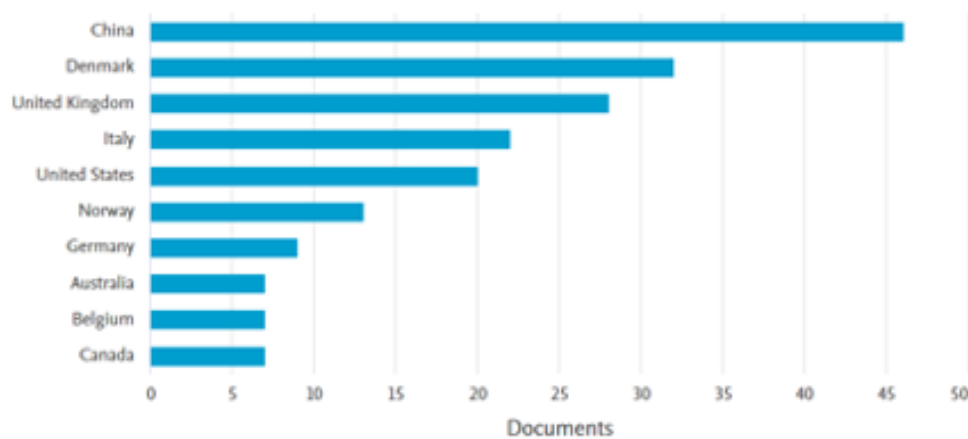


Figure 7: Documents by country/territory on "green transition"

Source: SCOPUS, 2021.10.29

"Transition"

431 901 document results (2021-11-01)

String: TITLE-ABS-KEY ("transition") AND (LIMIT-TO (SUBJAREA , "ENVI") OR LIMIT-TO (SUBJAREA , "AGRI") OR LIMIT-TO (SUBJAREA , "ENER") OR LIMIT-TO (SUBJAREA , "EART") OR LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "MULT") OR LIMIT-TO (SUBJAREA , "ARTS") OR LIMIT-TO (SUBJAREA , "DECI") OR LIMIT-TO (SUBJAREA , "SOCI"))

Time distribution of publications on "transition"

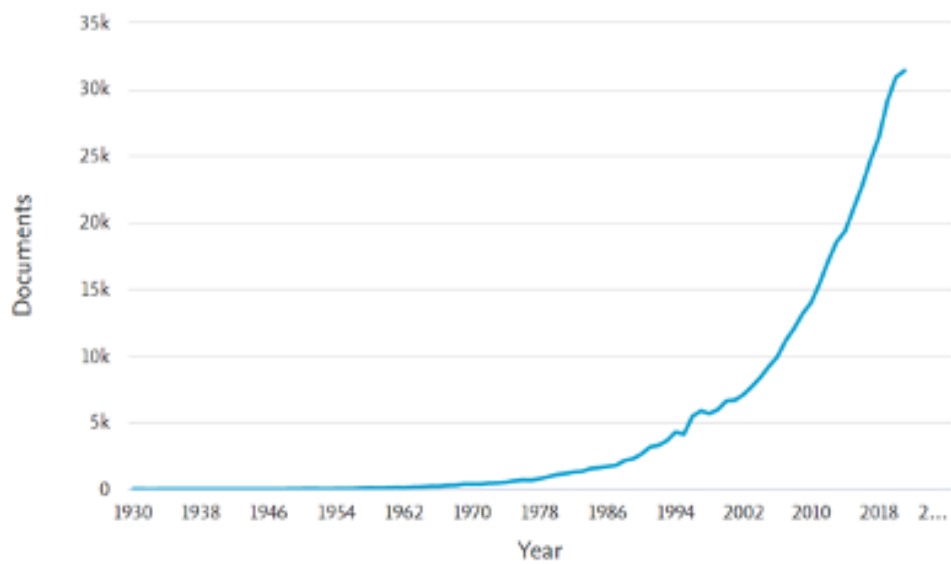


Figure 8: Time distribution of publications on "transition"

Source: SCOPUS, 2021.11.01

Research areas most covered by the published documents on "transition"

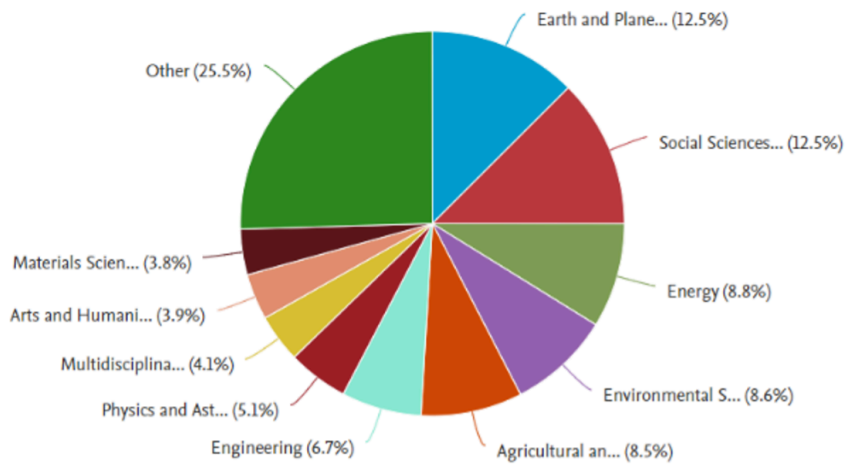


Figure 9: research areas most covered by the published documents on "transition"

Source: SCOPUS, 2021.11.01

Documents on "transition" by country/territory

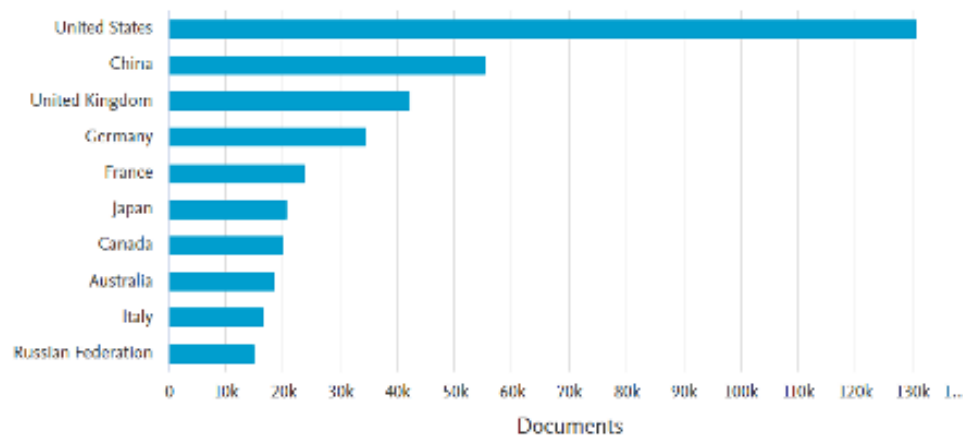


Figure 10: documents by country/territory on "transition"

Source: SCOPUS, 2021.11.01

"Social justice"

28,200 document results (2021.11.01)

String: TITLE-ABS-KEY ("social justice") AND (LIMIT-TO (SUBJAREA , "SOCI") OR LIMIT-TO (SUBJAREA , "ARTS") OR LIMIT-TO (SUBJAREA , "ENVI") OR LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "AGRI") OR LIMIT-TO (SUBJAREA , "ENER") OR LIMIT-TO (SUBJAREA , "DECI"))

Time distribution of publications on "social justice"

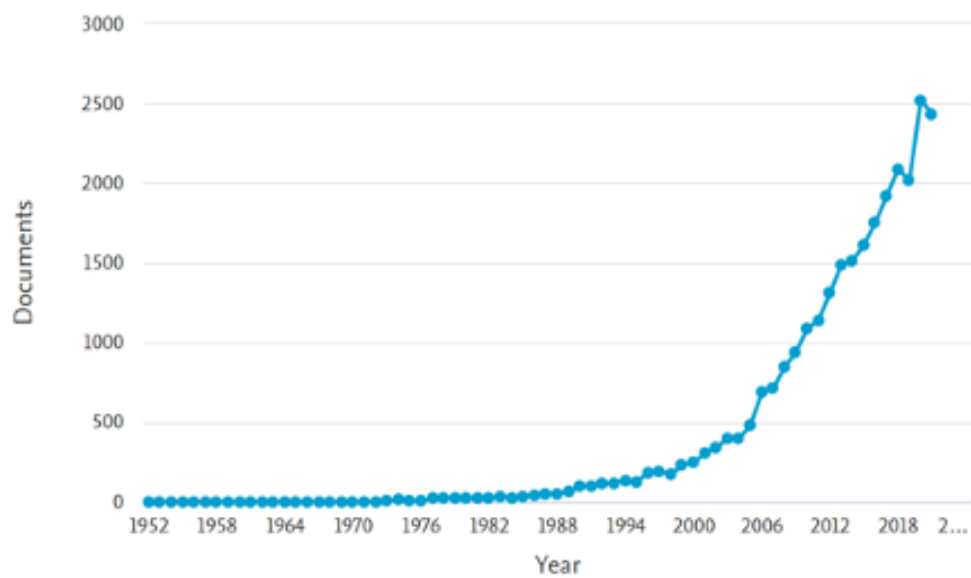


Figure 11: Time distribution of publications on "social justice"

Source: SCOPUS, 2021.11.01.

Research areas most covered by the published documents on "social justice"

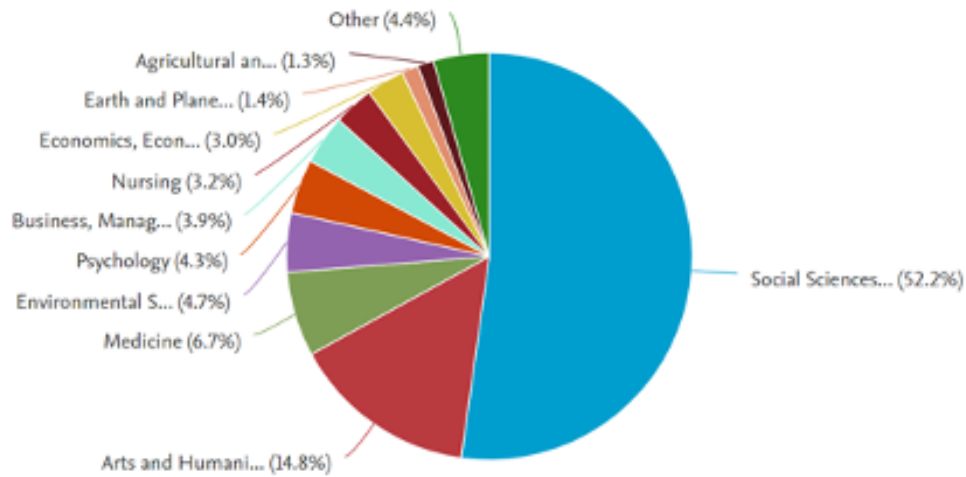


Figure 12: research areas most covered by the published documents on "social justice"

Source: SCOPUS, 2021.11.01.

Documents on "social justice" by country/territory

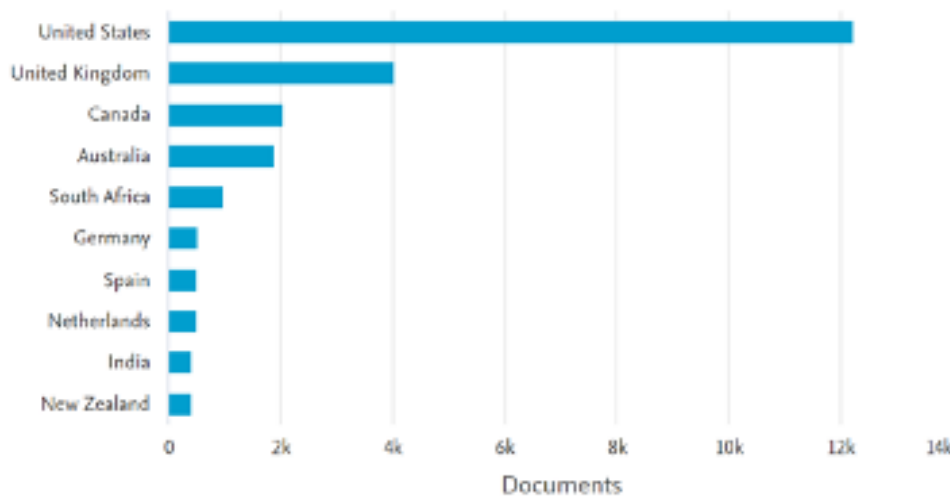


Figure 13: Documents by country/territory on "social justice"

Source: SCOPUS, 2021.11.01

"Green economy"

3,085 document results (2021.10.17)

String: TITLE-ABS-KEY ("green economy") AND (LIMIT-TO (SUBJAREA , "SOCI") OR LIMIT-TO (SUBJAREA , "ARTS") OR LIMIT-TO (SUBJAREA , "ENVI") OR LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "AGRI") OR LIMIT-TO (SUBJAREA , "ENER") OR LIMIT-TO (SUBJAREA , "DECI"))

Time distribution of publications on "green economy"

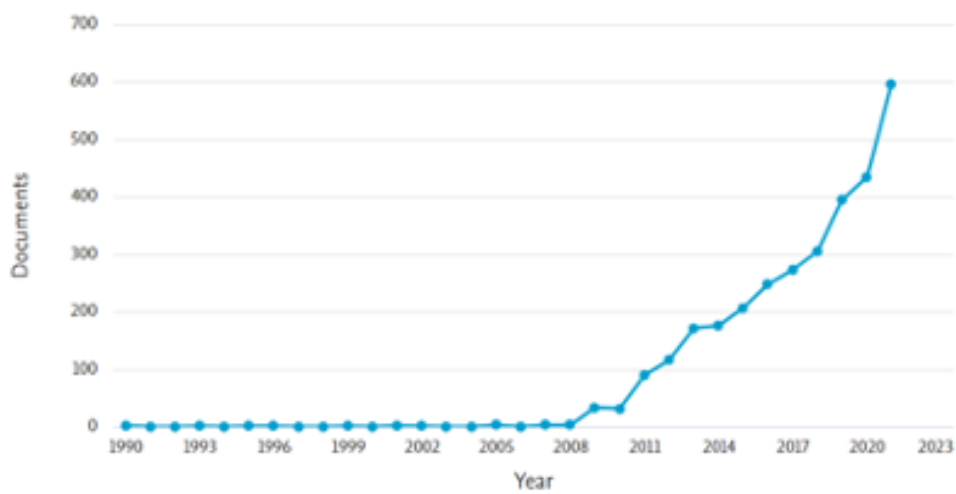


Figure 14: Time distribution of publications on "green economy"

Source: SCOPUS, 2021.10.17.

Research areas most covered by the published documents on "green economy"

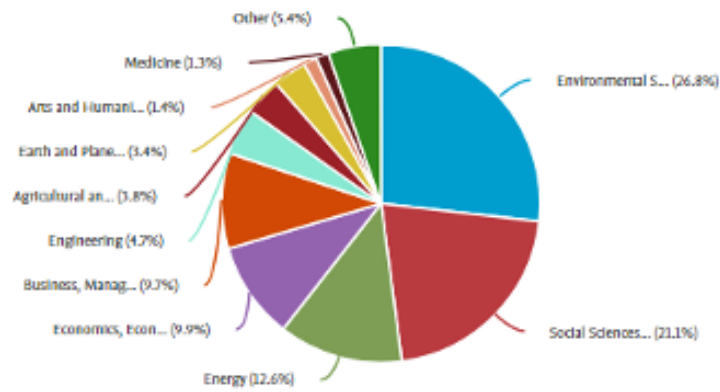


Figure 15: research areas most covered by the published documents on "green economy"

Source: SCOPUS, 2021.10.17.

Documents on "green economy" by country/territory

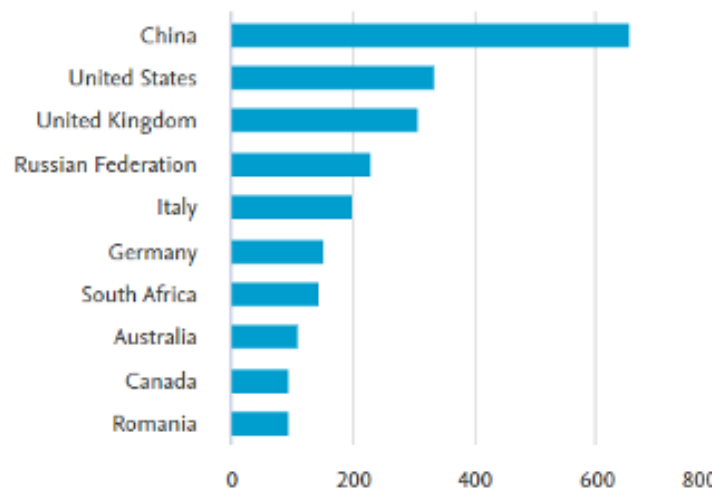


Figure 16: Documents by country/territory on "green economy"

Source: SCOPUS, 2021.10.17.

About this discussion paper

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Authors: Elin Cedergren, Carlos Tapia, Nora Sánchez Gassen, Anna Lundgren

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www.nordregio.org



Nordregio

**P.O. Box 1658
SE-111 86 Stockholm, Sweden
nordregio@nordregio.org
www.nordregio.org
www.norden.org**