



Justice in the future visions of Finnish forest policy actors

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Tiivistelmä - Referat - Abstract <p>Suomalaiseen metsäsektoriin kohdistuu paljon uudistumispaineita, viimeisimpänä vaatimus hillitä ilmastomuutosta ja luontokatoa. Paineiden odotetaan johtavan merkittäviin rakenteellisiin muutoksiin keskipitkällä aikavälillä, vuoteen 2040 mennessä (Kulvik et al., 2022). Muutostilassa oleva metsäsektori pyrkii transformaatioon, ja myös valtio pyrkii uudistamaan sitä poliittisella ohjauksella (Donner-Amnell, 2022). Oikeudenmukaisen siirtymän käsitettä ei kuitenkaan ole laajamittaisesti sovellettu toimialaan.</p> <p>Tässä työssä analysoidaan kvalitatiivista sisällönanalyysia hyödyntäen metsäpolitiikan toimijoiden tuottamia strategioita, tiekarttoja, ohjelmia, toimintasuunnitelmia ja muita tekstimateriaaleja, jotka kuvaavat alan tulevaisuutta. Nämä kuvitellut tulevaisuudet käsitetään sosioteknisinä visioina (Longhurst & Chilvers, 2019). Lähtökohdaksi otetaan, että nämä tulevaisuudenkuvat eivät vain ennusta tulevaa, vaan ovat strategisia, poliittisia tekoja, jotka jo itsessään rakentavat näitä tulevaisuuksia. Tutkimus pyrkii tuomaan esiin, millaisia tulevaisuuksia visioissa edistetään, miten niissä käsitellään oikeudenmukaisuuteen liittyviä kysymyksiä, sekä löytämään oikeudenmukaisuuteen liittyviä politisoivia ja epäpolitisoivia kehyksiä.</p> <p>Toimijat jaotellaan aiemman tutkimuksen (Harrinkari et al., 2016) perusteella kolmeen koalitioon. Metsäkoalitie visioi tulevaisuuden, jossa suomalaiset metsätuotteet vastaavat globaaliin kysyntään ja ne nähdään ilmastomuutoksen ratkaisun keinona. Metsäkoalitie kehystää metsäteollisuuden liittyvät ekologiset ja sosiaaliset kysymykset vastuullisuus- ja kestävyyskysymyksinä. Hallintokoalitie priorisoi suomalaisen yhteiskunnan hyvinvointia ja näkee metsäteollisuuden tärkeänä keinona tämän päämäärän saavuttamiseksi, pyrkien siksi säilyttämään sen toimintaedellytykset. Ympäristökoalitie pyrkii säilyttämään luontoarvot ja kehystää metsätalouteen liittyvät ekologiset ja sosiaaliset kysymykset oikeudenmukaisuuskysymyksinä. Ympäristökoalitie toimijat suosivat politisoivia kehyksiä, kun taas metsäkoalitie toimijat valitsevat yleensä epäpolitisoivia kehyksiä.</p> <p>Tutkimus osoittaa, että toimijat käyttävät oikeudenmukaisuuden kehystä vaihtelevasti. Oikeudenmukaisen siirtymän tutkimus ottaa usein lähtökohdakseen sen määrittelyn, mitkä ovat oikeudenmukaisuuden rajat. Tämä tutkimus kuitenkin näyttää, että jo ennen tätä täytyy ratkaista joitain olennaisia kysymyksiä. Tulevan tutkimuksen kannattaa kiinnittää enemmän huomiota siihen, mikä saa osan toimijoista omaksumaan oikeudenmukaisen siirtymän käsitteen ja toiset hylkäämään sen.</p>		
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Tiivistelmä - Referat - Abstract <p>The Finnish forestry sector today faces multiple pressures for renewal, demands of climate change and biodiversity loss being the most recent and pertinent ones. The pressures are expected to materialize in the mid-term future: significant structural changes in the forest sector will most likely take place by 2040 (Kulvik et al., 2022). The Finnish forest sector is already in a state of flux, aiming for a transformation, with the state also seeking to reform it through various policies (Donner-Amnell, 2022). However, the concept of just transition has not been widely applied to the industry.</p> <p>This work uses qualitative content analysis to analyze strategies, roadmaps, programmes, action plans and other textual materials where actors of the forest policy arena envision the future of the sector. Recognizing that these expressions of the desired futures are not mere observations of what might happen, but strategic, political actions building those very futures, this study understands them as sociotechnical visions (Longhurst & Chilvers, 2019). This research seeks to articulate what kind of futures are promoted in these visions, how questions of justice are addressed in them, and discover patterns of politicization and depoliticization related to justice.</p> <p>Based on earlier research (Harrinkari et al., 2016), actors are assigned into three coalitions. The forestry coalition envisions a future where Finnish forestry products satisfy global demand and are seen as one solution to climate change. It prefers to frame ecological and social issues through the frames of responsibility and sustainability. The administrative coalition prioritizes the well-being of the Finnish nation and sees the forest industry as an important means to do so, thus wishing to maintain its operating conditions. The environmental coalition aims to maintain the values of nature and frames the environmental and social issues of forestry as questions of justice. Actors within the environmental coalition tend to choose frames that politicize the discourse, whereas the forestry coalition tends to choose depoliticizing ones.</p> <p>The present study demonstrates that actors employ the frame of justice to a varying extent. The academic literature on just transition often departs from the starting point of defining the limits of what is just. However, the present study shows that there are pertinent questions to be asked already before that. Future research is invited to pay attention to what makes actors embrace the concept of just transition and others reject it.</p>		
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1 Introduction

Ecological crisis calls for rapid transformations of our lifestyles, societies, and livelihoods. In Finland, one of the most resource-intensive countries in Europe (Pirtonen, 2022; Vadén et al., 2019), many rural industries such as livestock production, fur farming, industrial agriculture, and forestry are increasingly under pressure to transform. From the perspective of justice, livelihoods are one of the most pressing questions related to societal transformations. These are often also questions of regional justice, as there might not always be viable alternative livelihoods in sparsely populated areas. Transitions and transformations risk continuing and strengthening the injustices of the global political economy (Newell & Mulvaney, 2013), if not executed with environmental and social justice perspectives in mind.

Forestry has long historical roots in Finland and is a central part of the national economy (Berg-Andersson et al., 2021). However, the forest sector has been in a mode of crisis since the early 2000s (Donner-Amnell, 2022). The current forest industry product portfolio is largely based on relatively low value-added products, which means that profitability is based on a large degree of resource use. Efforts for a structural change have not turned out to be successful. (Donner-Amnell, 2022.) Today, awareness of climate change and biodiversity loss and the role of forests in these issues further increase the pressures faced by the forest sector (Pauli et al., 2021; Berg-Andersson et al., 2021). Forestry is the most important cause of regional extinction in Finland (Hyvärinen et al., 2019). Wood sourcing is based increasingly on a high level of logging within the Finnish borders because wood imports from Russia have come to a standstill due to the Russian attack in Ukraine (Viitanen et al., 2023).

Forestry is a polarized field that is characterized by a struggle between environmental concerns and economic interests (Harrinkari et al., 2016; Toivainen, 2021). Tensions in the sector always manifest themselves through some topical issue, and the most intense struggles of the moment are being fought over the question of the carbon sink and the level of logging (Van Wonterghem, 2024). As a part of the EU LULUCF regulation, Finland is committed to certain levels of carbon sinks for the years 2021–2025 and 2026–2030 (Leppä, 2021). In addition to that, The Finnish Climate Act states the carbon neutrality goal for the year 2035 (Ilmastolaki 423/2022). Both of these commitments

were made with a strong reliance on the sink capacity of forests. However, the land-use sector has turned from a carbon sink into a carbon source mainly due to the high level of logging (Tuomainen & Silfver, 2022), slowing down the accomplishment of these goals. Some call for limiting the level of logging (Ketola et al., 2022), while others resist, making it a highly controversial question (Van Wouterghem, 2024).

Even though the aforementioned pressures are not a significant worry at the current moment, the pressures will most likely materialize in the mid-term future: ETLA Economic Research suggests that significant changes in the forest sector will most likely take place by 2040 (Kulvik et al., 2022). The boundaries between the forest industry and other sectors are expected to blur as technology and markets change. Berg-Anderson et al. (2022) stress that to ensure access to materials and a skilled workforce, national policies and the business community should start strategic adaptation.

Transitions and transformations are likely to create winners and losers in one way or another (Newell & Mulvaney, 2013). Within civil society, there are increasing demands for just transitions in different sectors to mitigate climate change and biodiversity loss while ensuring social justice. In Finland, a group of over 80 NGOs has demanded just transition (Finnwatch, 2023). However, just transition can mean many things in terms of goals, values, and whose interests should be protected.

In this context, multiple actors within the Finnish forest sector express their visions of the future of the industry. Recognizing that expressions of the desired futures are not mere observations of what might happen, but strategic, political actions building those very futures, this study understands these imaginary futures as sociotechnical visions (Longhurst & Chilvers, 2019). Even if sociotechnical visions are presented in a scientific or technical manner, they shape what kind of commitments and decisions are made in the current moment and are thus inherently political. This study aims to ask what kind of futures are promoted in these visions, and how are questions of justice addressed in them.

As the question of just transition and justice itself is inherently political, this study also pays attention to how questions related to justice are politicized or depoliticized. Actors who employ strategies of politicization often do so because they consider certain issues important and aim to democratize the discourse around them. This way they seek to

mobilize support and shape public opinion. Efforts of depoliticization, on the other hand, often direct the public discourse away from certain topics in order to preserve these domains intact and protect them from undue political attention. (Pepermans & Maesele, 2016.) To dig deeper into how justice is present in the visions promoted by different actors, this research pays attention to frames that politicize or depoliticize issues related to justice.

In short, the aim is to answer the following questions:

RQ1: What kind of sociotechnical visions are there about the future of forestry in Finland?

RQ2: How is justice understood in these visions?

RQ3: In relation to justice, what kind of politicizing or depoliticizing frames can be identified?

From the perspective of academic literature on just transition, the Finnish forest sector is an interesting case. It is a sector already in a state of flux, aiming for a transformation, with the state also seeking to reform it through various policies (Donner-Amnell, 2022). Increasing demands for mitigating climate change and biodiversity are threatening its operating conditions. However, with the exception of some undertakings (Extinction Rebellion Finland, 2023; Fortran, n.d.), the concept of just transition has not been embraced. This study contributes to the literature on just transition by inviting it to pay more attention to how the concept of justice or just transition gets employed within a sector – or not.

This thesis proceeds as follows. First, chapter 2 gives an overview of the development of the Finnish forest sector, the emergence of issues, and the efforts to address them. Chapter 3 presents the most recent pressure faced by the sector: the question of climate change mitigation. This is followed by a short description of the central actors within the Finnish forest policy arena in chapter 4. Chapter 5 introduces the theoretical background utilized in this research: the academic literature on just transition and the concept of sociotechnical visions. Then, methods, limitations, and ethical considerations are presented in chapter 6, followed by the results in chapter 7. Chapter 8 discusses these results in the context of just transition and finally, conclusions are presented in chapter 9.

2 The development of the Finnish forest sector – issues and efforts to solve them

The Finnish forest industry is a mature and well-established sector, which has kept its major products and processes almost unchanged for decades. As an export-oriented sector, the Finnish forest industry is very susceptible to changes in the operating environment. (Donner-Amnell, 2022.) In the short term, wood prices have the biggest impact on the profitability of forestry companies (Viitanen et al., 2023).

The recent growth in the forest sector has mainly been accomplished by increased utilization of wood and higher production volume (Lintunen et al., 2023). Without increasing the added value of the products, the only means for the industry to maintain its growth is to rely on increased resource use. Forestry, one of the largest energy consumers of Finland, relies on wood also in its energy consumption. It mainly produces its own energy by using the side streams of forest-based resources. Replacing wood energy could cost the forest industry billions (Berg-Anderson et al., 2022). This strong reliance on wood is reflected in high volumes of logging – forming a threat to biodiversity and climate.

The early 2000s saw a strong digitalization, decreasing the demand for print paper, the dominant product of the forest industry. As this was the most important product that the entire industry relied on, it has had a significant impact on the entire sector. Since then the industry, with the support of the Finnish state, has tried to recover from this shock with varying degrees of success, searching for a means of recovery. (Donner-Amnell, 2022.) As the demand for print paper has permanently decreased, the entire 2000s has seen multiple closures of paper mills (Lukkari, 2019).

No significant new innovations have yet taken off and the focus on packaging materials and pulp has come to rule the industry. Since the 1950s, the history of the forest industry has been about differences in emphasis between different products and production methods; new approaches have been scarce (Donner-Amnell, 2022). Currently, all three large forest corporations (UPM, Stora Enso and Metsä Group) are making large investments into new production capacity, especially pulp and cardboard (Viitanen et al., 2023).

Experts both inside and outside of the industry have called for new, higher value-added forestry products (Österberg et al., 2024; Lintunen, 2023). This would enable getting more profits from a smaller amount of raw materials. Utilizing production side-streams to develop novel higher value-added products has been suggested to be a key to success. Most of the side-streams are currently utilized to produce energy for the internal needs of the industry. Counting on side-streams as the basis for new products would thus require alternative energy solutions (Berg-Andersson et al., 2022).

Entering the competitive global markets with new products has time and again been singled out as one of the main obstacles to the renewal of the industry (Donner-Amnell, 2022; Lintunen et al., 2023; Berg-Andersson et al., 2022). Getting global investments is challenging (Lintunen et al., 2023). The global demand and its fluctuations are seen as the main factors guiding production.

Donner-Amnell (2022) argues that despite the rhetoric focusing on innovations, the industry has not shown a real effort for a profound change during the 2000s. This has also been influenced by the favorable national politics putting focus on competitiveness, not providing enough incentive for change. There is a strong incentive for the forestry giants to try to change the operating environment instead of their operations.

3 The Finnish forest sector and climate change mitigation

The most recent and pressing challenge for the Finnish forest sector is presented by increasing recognition of the connection between forest management and climate change. Due to their capacity to absorb carbon dioxide when growing – that is, functioning as carbon sinks – forests are often thought of as an important climate mitigation tool. In the IPCC climate scenarios, all climate scenarios with strong mitigation rely on land-based carbon dioxide removal, meaning mostly forests, alongside emissions reduction (Jia et al., 2019).

Among other EU countries, Finland is committed to pre-defined levels of carbon sinks for the years 2021–2025 and 2026–2030 (Ministry of Agriculture and Forestry, (n.d.b) – carbon sink of 17,8 million tons is expected by the year 2030 (Leppä, 2021). The Finnish Climate Act also states the carbon neutrality goal for the year 2035 (Ilmastolaki 423/2022), necessitating that the carbon emissions are at highest equal to the carbon

sinks. However, shortly after these commitments were made, it turned out that the land-use sector had turned from a carbon sink into a carbon source due to the high level of logging (Viitanen et al., 2023), revealing that Finland is falling far from its goals.

With the current policies, it seems so far that Finland will be confronted with significant challenges in meeting its LULUCF obligations. The high level of logging in Finland, 68.8–76.3 million cubic meters per year in recent years (Viitanen et al., 2023), is increasingly criticized by experts, civil society, and some policymakers. It is estimated that in order to reach the target, logging volumes should be significantly reduced from current levels, possibly to 55-65 million cubic meters per year (Van Wonterghem, 2024). The Finnish Nature Panel also recommends limiting levels of logging and creating economic incentives for forest owners for protection and alternative forest management practices (Ketola et al., 2022). As biodiversity is also an increasingly important theme in policy, land-use policies are likely to be one of the most important drivers for change in forestry (Berg-Andersson et al., 2022).

The topic has been very dividing among the policy arena (Van Wonterghem, 2024). Even with the demands to decrease logging, there have also been wishes to increase them, even to 89,5 million cubic meters (Finnish Forest Industries, 2020).

There is disagreement not so much about whether the forest industry should take a role in climate change prevention, but rather about choosing the means to do it. There are a variety of different strategies to use forests to mitigate climate change. Adjustment of forest management practices, reduction of logging, and reforestation are strategies that take land use as their starting point. On the other hand, some strategies shift their focus to forestry products. Products with a long lifecycle, such as construction materials, retain the carbon in harvested wood products for a longer time. The idea is not to allow the products to decay and thus release the carbon back into the atmosphere in the short term. Finally, substitution is a climate mitigation strategy where fossil-based energy and products are substituted with wood-based products. It is also called shifting into bioeconomy, in contrast to fossil economy.

At present, the forest industry's practices are still far from achieving climate change mitigation through forest-based products. In 2022, sixty percent of the wood harvested in Finland was used in energy production, releasing the carbon right back to the

atmosphere. Only less than eleven percent of wood ended up in long-term products. (Junttila & Pelttari, 2024.)

However, research reveals a tradeoff between the sinks and avoided emissions, resulting in a very low likelihood of strong mitigation results attained by the means of forestry products (Soimakallio et al., 2016). Increased harvest rates are very likely to increase the total greenhouse gas emissions and decrease the sink capacity so that in the end, no mitigation is achieved (Soimakallio et al., 2021).

4 Central actors in the Finnish forest policy arena

The forest sector is dominated by three large-scale companies that have considerable power within the industry, also called "the big three": UPM, Metsä Group, and Stora Enso. These three are originally Finnish companies but have become large players in global markets. (Lassila, 2023.)

A special feature of the Finnish forest sector is that a large share of forests are privately owned, a large number of which are smallholders. The forest industry has close relations with forest owners (Toivainen, 2021), which has led to the establishment of central interest organizations, such as the Central Union of Agricultural Producers and Forest Owners. These organizations have a strong foothold both in the national level as well as EU politics and have also strongly shaped the public understanding of the state and operating conditions of forestry in Finland. It has been argued that due to the globally influential forest sector, Finland is a larger player in the global climate policy than its size might suggest (Toivainen, 2021). The forest owner community is going through a structural change: new smallholder forest owners are increasingly based in cities, younger and more environmentally minded (Berg-Andersson et al., 2022). The forest-owning community has a wide range of views and objectives, not all of which necessarily correspond to the views of the interest organizations.

The Ministry of Agriculture and Forestry Finland is the primary governing body of the Finnish forest policy (Ministry of Agriculture and Forestry, n.d.c). However, the Ministry of the Environment is responsible for protecting biodiversity (Ministry of the Environment, n.d.). The EU also has a significant impact on the sector (Ministry of

Agriculture and Forestry, n.d.a). Metsähallitus is a state-owned company that manages the forests owned by the state (Metsähallitus, n.d.).

In addition, ENGOs and citizen activists play an important role within the forest policy arena, both participating in official working groups and committees and applying a wide range of other techniques to influence the public discussion around forests, promoting environmental values (Sarkki & Heikkinen, 2010).

5 Theoretical background

This thesis utilizes the academic literature on just transition as its primary theoretical background, and both the theoretical advancements in it as well as practical lessons from just transitions are addressed. Second, the thesis analyzes the imagined futures of the forest sector as sociotechnical visions in order to better grasp their strategic and political nature.

5.1 Just transition

With the looming climate change risking to fundamentally alter ecosystems and the societies as we know them, the pressing need for green transition has been recognized at all policy levels. Delay of decarbonization is fundamentally unjust in itself (Atteridge & Strambo, 2020) because climate change strengthens many of the existing inequalities as well as creates new ones.

The idea of a just transition emerges from the recognition that a green transition is not necessarily equitable. The current global political economy is characterized by exploitation and dispossession. Transitions, if not planned with the various environmental and social justice perspectives explicitly included, are likely to continue these unfair patterns (Newell & Mulvaney, 2013), most likely taking novel forms. This is to say that new environmental policies do not only create winners but also losers (Koskinen et al., 2023).

The roots of the idea of just transition are in the 1970s trade union movement, when mine workers unionized and demanded compensation for the losses caused by environmental policies (Sweeney & Treat, 2018). Since then, the concept of just

transition has broadened its scope and nowadays contains multiple different perspectives, ranging from gender equity (Walk et al., 2021) to the responsibilities towards other species (Huttunen & Rekola, 2021). The concept of just transition can be understood in a variety of ways and from a plurality of perspectives (Wang and Lo, 2021). It has increasingly become a discussed theme in the context of green transition policymaking both at the national and international levels. The trendsetter was the International Labour Organization (International Labour Organization, 2015), which was the first to create guidelines for just transition. The text has served as a starting point for other organizations, who have elaborated and further developed these ideas as well as applying them to specific contexts.

In academic circles, the just transition has been linked to "socio-technical transitions" literature (Geels & Schot, 2007). Later the research strand was bridged to political economy, climate justice, and energy justice research (Newell & Mulvaney, 2013).

Just transition can be a manifestation of a sustainability transition or transformation. Sustainability transition aims to change socio-technical systems in a controlled, linear way towards an environmentally sustainable state. An example of a sustainability transition would be changing the means of energy production towards carbon neutral ones, without addressing the question of energy use (Huttunen & Rekola, 2021). The means of reaching this goal is usually traditional environmental policy: setting boundaries and limits to polluting or extracting activities.

Sustainability transformation, on the other hand, has the goal of transforming society more profoundly: not only do the means of (energy) production change, but the community adapts to a sustainable way of life. (Halonen et al., 2022.) In this vision, traditional environmental policy is only one of the many tools to change society to be more sustainable (Huttunen & Rekola, 2021). From this point of view, environmental policy alone is only able to result in a superficial change, not being able to truly transform the environmentally destructive structures of societies (Duit et al., 2016). This work will use the concept of "transition" because it has traditionally been used in the literature, but the aim is not to deny the possibility of transformation.

The just transition literature is often based on three aspects of justice taken from the environmental justice literature: recognitive, procedural, and distributive justice

(Kivimaa et al., 2021). However, more aspects can be added. Using literature reviews, expert panels, and philosophical methods, Tribaldos and Kortetmäki (2022) create a list of principles and criteria for a just transition in the food systems, which can be applied to other sectors. This list includes six aspects (or principles, as they call them) of justice; in addition to the list of the three traditional ones, they add cosmopolitan justice, ecology, and non-human beings and capacities.

Newell and Mulvaney (2013) bridge political economy and the just transition discourse. It is important to ask who wins and who loses when transitions take place. The most important aspects include energy justice and climate justice. Energy justice demands us to pay attention to both those who suffer from energy poverty or energy scarcity, as the lack of energy is strongly associated with low levels of development; and simultaneously to those, who are dependent on the fossil economy. The present work will mainly focus on those who are dependent on the current forestry regime, as there is hardly any energy poverty in Finland, let alone pulp and paper poverty. Climate justice, then, deals with intergenerational justice, especially stressing the rights of future generations, as well as intragenerational justice that takes into account the uneven impacts of climate change both regionally and socio-economically.

There are thus multiple groups whose rights should be considered when planning a transition. It seems clear that in most cases, not all parties can be winners and there will be tradeoffs. Tradeoffs especially concern distributive and procedural justice rather than recognitive justice, whereas recognitive justice is in a way "free".

From a critical point of view, the concept of just transition can be conceived as a vague and theoretical umbrella term bringing together conflicting goals that in reality are not easy to reach simultaneously. Most often there appears to be a tension between environmental and social justice (Huttunen & Rekola, 2021). The demand to preserve jobs and livelihoods might override the environmental and ecological concerns. Since the concept has become politicized, it is no longer just about ensuring justice in the transition process, but also about slowing down or preventing transitions in the name of social and territorial justice (Huttunen & Rekola, 2021). The term may even have a reactionary connotation in some contexts.

From the social justice point of view, choosing between the social and environmental goals of the transition is a chicken or egg kind of question; it is inherently impossible. Climate change should not be mitigated in a manner that creates or strengthens inequalities. At the same time, not mitigating climate change creates and strengthens inequalities (Atteridge & Strambo, 2020). To use Atteridge's and Strambo's (2020) words: "To achieve equity aims, all principles should be pursued in parallel, not selectively. At the same time, nothing justifies postponing the first principle: the decarbonization imperative. Delays that leave regions behind as decarbonization accelerates across the globe are inherently unjust – as are the ramifications of unchecked climate change itself."

Justice in itself is a wider philosophical question. One such underlying tension is whether justice is seen as liberal justice or through the concept of solidarity (Huttunen & Rekola, 2021). The liberal justice point of view seems to be more dominant within the just transition literature. In this view, responsibilities towards others are based on the interests of an individual and the idea that ultimately, by helping others, the individual is better off him/herself. In the context of a just transition, important themes are individual rights, freedom of choice, and equal distribution of harms and benefits (Huttunen & Rekola, 2021).

Huttunen & Rekola (2021) criticize this view for being narrow in its scope and suggest that the concept of ecological solidarity should be at the center of just transitions. This would move the focus not only to the aforementioned questions but also to the collective responsibility for the well-being of other humans and non-humans. The idea of solidarity differs from the liberal view of justice because in this ideology, there is responsibility for others simply because they need help. In ecological solidarity, the scope includes not only other humans but also non-humans.

Traditional perspectives on just transition have been challenged on the basis that most often they focus too much on the consequences of changing the current state of societies at the cost of ignoring the current harmful structures and injustices, thereby strengthening them (Velicu & Barca 2020). This can be seen as a manifestation of underlying liberal justice ideology. When planning a transition, focusing only on the potential future risks creates a bias towards staying in the status quo. On a positive note, Atteridge and Strambo (2020) stress that transitions can offer a possibility of addressing

the already existing inequalities. Therefore, the present work aims to include not only the potential future risks but also the inequalities already taking place in the forestry sector.

5.1.1 Just transition in practice

In their grounded literature review, Atteridge and Strambo (2020) define seven principles for just transition: (1) Actively encourage decarbonization; (2) Avoid the creation of carbon lock-in and more “losers” in these sectors; (3) Support affected regions; (4) Support workers, their families and the wider community affected by closures or downscaling; (5) Clean up environmental damage, and ensure that related costs are not transferred from the private to the public sector; (6) Address existing economic and social inequalities; and (7) Ensure an inclusive and transparent planning process.

Earlier literature has identified key factors of a successful just transition (Lempinen & Vainio, 2022). First, a sufficient time frame is needed for any transition. Second, a clear political aim with systematic policies is needed to increase the trust of different actors in the government and enable future planning. Third, inclusiveness in the policy creation is needed to make the different actors heard. Fourth, adequate compensation for giving up a livelihood. However, in practice, governments are usually reluctant to react to early warning signs of risks (Atteridge & Strambo, 2020).

What often seems to be the case is that these guidelines are directed to the policymakers – the state. The traditional research on just transition seems to often stem from the question of governance, treating the stakeholders as merely a passive mass waiting to be governed, whereas the state is seen as the initiator and the facilitator of transitions. Whereas the governance of transitions is an important and valid viewpoint, questions such as the agency of stakeholders and power relations are often left unexplored.

Newell and Mulvaney (2013) recognize that with the lack of an international energy governance system, nation states are in the key enabling and steering role. On the other hand, they are suspicious about the capability and willingness of states to facilitate just transitions. This is because most often the control of the energy system – how it is produced and consumed – is not directly in the hands of the state, but rather the private

sector. A similar pattern can be seen in the case of the Finnish forestry sector: there is no consistent international forest governance; and at the same time, the role of the Finnish government might be limited, because it can only affect the market conditions and market design, whereas the big three and other players define the market operations.

5.2 Sociotechnical visions

As this research focuses on the imagined futures put forward by various actors and recognizes them as political actions building the very future they are about, it is a natural choice to conceptualize them as sociotechnical visions as understood and operationalized by Longhurst & Chilvers (2019). Underpinned by the concept of sociotechnical imaginaries (Jasanoff, 2015), it is recognized that imagined futures involving technologies are not only about technologies but also about the social orders and material arrangements surrounding them. Sociotechnical *visions*, then, are imaginaries “in the making”: unlike imaginaries which are collective, visions are imagined futures held by a limited community. However, they have a similar normative element to them. Even if sociotechnical visions are presented in a scientific or technical manner, they shape what kind of commitments and decisions are made in the current moment and are thus inherently political, whether this is their intention or not (Longhurst and Chilvers, 2019). Most often the two concepts have been used to study futures of energy systems, but are here applied to forestry.

Originally, sociotechnical imaginaries were understood as something quite monolithic and consistent, this being mainly due to the fact that the research subjects were mainly the political elites (Smith & Tidwell, 2016). Recently, the research focus has shifted towards internal contestations within sociotechnical imaginaries, also paying attention to the question of *whose* imaginary it is (see for example Kuchler, 2014).

Studying blue-collar workers in energy industries, Smith and Tidwell (2016) point out that it is not only the elites that articulate visions of alternative energy systems and social orders around them. However, most of the time these local imaginaries remain “bounded” and do not surface in the national-level discussion, because it is the elites that hold the political power and material infrastructures to control the national-level imaginaries. This brings about the question of power and politics in the formulation of national-level imaginaries. Sociotechnical visions are efforts to break into the

mainstream and eventually become collective, institutionalized, and publicly performed imaginaries, and thus there can be contestations between different visions. Longhurst and Chilvers (2019) observe that the closer the vision is to the center of power, the more likely it is to follow the lines of the mainstream imaginary. For example, the realms of state, business, science, and technology are more likely to produce compatible visions, whereas visions produced by civic society often follow different lines.

Even with the normative nature of sociotechnical visions and imaginaries, questions of just transition or justice in general have not explicitly broken into the literature around them. For example, work and livelihoods have not been central themes within the sociotechnical imaginary research (for exceptions, see Burnham et al., 2017; Smith & Tidwell, 2016). This thesis argues that as sociotechnical visions and imaginaries do not only describe but also build the social worlds we live in, it is essential to include questions of justice in relation to imaginaries. Combining these two perspectives is a very natural step as both concern imaginations of long-term futures. This thesis aims to show one possible way to bridge the gap between the two literatures.

6 Methods

As sociotechnical visions are strategic articulations of desired futures, such visions can be identified from documents such as strategies, roadmaps, programmes, visions, and action plans (Longhurst and Chilvers, 2019). A similar approach is employed here.

All sociotechnical visions are partial in relation to each other, highlighting and downplaying different aspects (Longhurst & Chilvers, 2019). This is why this study aims to maximize the representativeness of different ideas in the materials. Earlier research on the Finnish forest sector suggests that there are three advocacy coalitions in the Finnish forest policy arena (Harrinkari et al., 2016). As this grouping has been done based on different core beliefs, it serves as a good basis for identifying actors with different visions. The actors identified within these three coalitions were used as a preliminary basis for including and grouping actors in this study. They also helped with ensuring that there were enough materials from different perspectives. It was assumed that the sociotechnical visions promoted by different actors derive from these same beliefs.

New actors were also added to make the study more comprehensive. These were selected based on their activity in presenting strategic visions of the forest industry in Finland in recent years. The additional actors included Greenpeace Finland, Extinction Rebellion Finland, and Citizens' Jury on the fair use of the forests of Lapland. In addition, the European Commission was included as it is a relevant actor with distinct beliefs influencing the national policy arena. Greenpeace Finland as well as the Extinction Rebellion were interpreted to belong to the environmental coalition identified by Harrinkari et al. (2016), because they clearly share important core beliefs. The European Commission and the Citizens' Jury on the fair use of the forests of Lapland did not have a clear coalition where they could be placed.

The research materials primarily consist of strategies, roadmaps, programmes, visions, and action plans provided by different actors. Where not available or insufficient, materials were complemented by blog posts, statements, citizen's initiatives, and one panel discussion. Another reason to include secondary materials is that there is naturally a certain asymmetry when it comes to materials produced by different groups. This reflects the different positions of these groups – they are asymmetrical to begin with in terms of their size, coherence, resources, and way of organizing. Whereas governmental actors provide policy papers explicitly addressing the future of Finnish forestry, the visions of the civil society must be reconstructed from a variety of sources. Only materials that were considered to present strategic visions about the future of the forest sector were included. This was an important selection criterion that was applied in particular for blogs and statements, where only some were selected for analysis.

Materials from the years 2020-2024 were included. This timeframe was selected because it represents the time during and after the Covid-19 pandemic, a significant event in the global markets. The timeframe is also one during which the issues of forestry as related to the green transition have, once again, been widely discussed in the Finnish public sphere. Using these selection criteria, 71 documents were included in the analysis. The documents are listed in the annex, grouped by coalitions.

A qualitative content analysis was conducted in Atlas.ti. Qualitative content analysis was chosen, because it allows for attention to context and latent communication while focusing on patterns and regularities found in the data (Drisko & Maschi, 2015). Such a balance is important when identifying concepts as elusive as justice – on one hand,

defined and articulated by a rich tradition of literature, on the other hand, impossible to define exhaustively. Qualitative content analysis is well suitable to this context because it is focused rather on description than developing new concepts. In terms of epistemology, the literature of qualitative content analysis is rather ambivalent, but a focus on the ideals of validity and reliability suggests that it is more inclined toward positivism than constructivism (Drisko & Maschi, 2015).

The method of coding was abductive: guided by theoretical concepts but allowing room for themes to emerge from the materials. The starting point of the first coding cycle was a list of pre-defined codes which were designed to shed light on matters that are relevant to sociotechnical visions and just transition:

1. Meanings, issues, and framings of the forest sector
2. Practices and technologies
3. Justices and injustices
4. Rights and responsibilities
5. Actors and their roles
6. Policies
7. Tradeoffs

Codes 1 and 2 were used to identify preliminary answers to research question 1. They were designed to capture the priorities, framings, and valuations that actors hold towards the forest sector. To get preliminary insights for research question 2, code 3 was designed to get a rough preliminary understanding of what justices and injustices within the sector actors consider relevant. Codes 4–7 were also used to roughly identify relevant themes for research question 2. Code 4 relates to questions of justice as a philosophical concept and aims to capture which rights and responsibilities were prioritized by different actors. Code 5 was used to tentatively identify who the actors considered relevant in relation to matters of justice; and which actors were considered the possible victims or actors with power. Code 6 aimed to identify desired and undesired policies for the sector. Code 7 was used to distinguish mechanisms where other actors or interests win at the expense of others, possibly leading to justice issues.

The first cycle of coding involved identifying the pre-defined codes as well as identifying other themes that emerged from the materials. The first coding cycle resulted in 130

codes, some of which were subcodes. Preliminary results were drafted and research questions 1 and 2 adjusted after the first coding cycle. Codes were further organized, categorized, and split in Atlas.ti. This process involved refining findings, categorizing them, and exploring patterns among codes. Some additional materials were included at this time. Simultaneously, research question 3 was added. Based on these revisions, 33 codes were selected for the second coding round. After the second coding cycle, codes were recategorized and re-split in order to gain further accuracy. Final results were written based on this work.

As justice is the main interest of this study, special attention was paid to how it is identified in the materials. During the first and second coding cycle, references to justice were based on interpretations which considered the context and latent materials as well as the explicit content. After the second coding round, a criteria was formed partly based on literature, partly emerging from the materials. After forming the criteria, the quotations were re-evaluated once more, removing all quotations which did not align with the requirements. Quotations were interpreted as references to justice, if they met at least one of the following conditions:

1. There was an explicit reference to justice, injustice, fairness or unfairness;
2. Distribution of benefits, losses, costs, risks and responsibilities was addressed (distributive justice, see Kivimaa et al., 2021);
3. Reference to rights and responsibilities (see Kivimaa et al., 2021);
4. Reference to compensation of losses (restorative justice, see Kivimaa et al., 2021);
5. Addressing equality of starting points or demands for an even playing field (equality of opportunity, see Elford, 2023);
6. Demanding equal access to information;
7. Reference to favoring of something or someone at the expense of others;
8. Considerations of the representativeness of those involved in decision-making (procedural justice, see Kivimaa et al., 2021);
9. Recognizing those with different values, cultures, and worldviews (recognitive justice, see Kivimaa et al., 2021).

This criteria purposefully allowed for identifying references to justice even if it was not explicitly mentioned. It is obvious that even with a criteria, identifying appeals to justice

requires consideration of the context and interpretation and is therefore always somewhat subjective. 152 references to justice were identified in the materials.

6.1 Limitations

As the selection of the relevant actors and their grouping was largely based on the study conducted by Harrinkari et al. (2016), it is natural that the limitations of such an approach are transmitted to the present study. The earlier empirical findings were used as a basis of assigning actors to different coalitions. Grouping multiple and contradictory ideas by heterogeneous actors in such a way is inevitably a simplification of complex realities. As the present study addresses different questions to Harrinkari et al. (2016), it is possible that the grouping does not bring about the differences and similarities in a satisfactory manner. Views on justice or fairness were not explored in the set of core beliefs forming the coalitions in Harrinkari et al. (2016), which also results in potential differences between the grouping there and in this study. Moreover, additional actors were assigned to coalitions based on the evaluation of core policy beliefs. The heterogeneity of selected materials can also pose relevant limitations to the validity of results.

In addition, this research largely focuses on organizations and institutions instead of individual experiences. Individual perceptions are of extreme relevance to justice, but were left outside of the scope of this study.

Using qualitative content analysis in a context of disputed use of natural resource use does not come without limitations. Most importantly, such an approach is not fit for exposing greenwashing or other types of washing, as the focus is only on the texts produced by different actors. Exposing greenwashing or assessing contradictions between actions and rhetorics is not the aim of this work.

Another limitation of the present work is the inability to assess the realisticness or consequences of the identified visions. The Finnish forest policy arena is saturated with contradicting understandings and interpretations of the current state of the industry and its operating conditions. Content analysis is not fit for evaluating which interpretations are the right ones. The assessment of the realisticness of the visions is thus outside of the

scope of this work. The goal is simply to articulate how the visions address the questions of justice.

6.2 Ethical considerations

The recognition of the fact that a researcher is always positioned in the social world she is researching is a starting point of any interpretative research (Bukamal, 2022). The author of this study has participated in organizing one of the panel discussions analyzed in this study (Extinction Rebellion Finland, 2023). The participation included selecting and contacting some of the speakers, marketing the event, participation in planning some of the questions to panelists, and technical support during the event.

The decision to include the panel discussion in the materials was based on recognition of the fact that the author took a facilitative rather than a proactive role. The author did not initiate the event, make any defining decisions on the content or framing of the event nor speak publicly during the event. The panel discussion consists of individuals expressing their own opinions and views. These considerations do considerably reduce the risk of partiality when choosing to include the panel discussion in the materials of this study. The decision was also influenced by the lack of other sufficiently comprehensive, publicly available materials produced by the Extinction Rebellion Finland, which is a new but prominent and visible grassroots actor in the Finnish forest policy arena.

7 Results

Although there was obvious variation within coalitions, the original assumption that the visions put out by different actors follow the lines of the previously observed coalitions (Harrinkari et al., 2016) seemed to prove mostly true. Analysis shows that different visions could be distinguished between coalitions. In some particular aspects, however, the results followed the institutional settings rather than the coalition where they were placed: the Ministry of the Environment resembled the Ministry of Agriculture and Forestry rather than the environmental coalition where it was placed by Harrinkari et al. (2016).

The results section is divided into three parts: 1. A general description of sociotechnical visions elaborated by the different coalitions; 2. understandings of justice in the visions; and 3. politicizing and depoliticizing justice-related frames.

7.1 Coalitions' sociotechnical visions of the forestry in Finland

Based on the analysis, the environmental coalition and the forestry coalition had very strongly contrasted visions. The administrative coalition's visions were closer to that of the forestry coalition, but in many aspects, their views balanced between the two other coalitions. This is consistent with the results of Harrinkari et al. (2016), as the administrative coalition and the forestry coalition derive their beliefs from the same belief paradigm. This section answers research question 1 by outlining the visions at a general level.

The administrative coalition envisions a forestry where all the three “dimensions of sustainability” – that is, economic, environmental, and social well-being – are equally represented. All the nationally relevant actors are taken into account in decision-making.

In this vision, Finland has a globally competitive forest industry that produces more value of less resources. This is attained by innovations of bioeconomy and higher value-added products produced from pulp as well as wood construction. However, not all value based on forests is derived from production. At the same time, the ecosystem and recreational values are maintained, and forests also benefit other industries such as services and tourism. Finland reaches its commitments to climate neutrality and halting biodiversity loss. Citizens benefit from forests for recreation and well-being. Finland's forest expertise is world-class. Although there is an effort to attain win-win situations where both the forest industry as well as other values thrive together, the administrative coalition also acknowledges that ultimately there might be tradeoffs between different interest groups. Where some groups lose, losses are compensated.

The forestry coalition articulates its visions very clearly and often directly appeals to policymakers. The Finnish forest industry and especially its products are seen as a solution for “global problems”, meaning mostly climate change. Global demand and consumers guide the markets so that only responsible and societal good-producing businesses survive. Forest-based products are used as a substitute for fossil fuel-derived

products and thus help societies in the transition away from dependency on fossil fuels. Forest industry brings a lot of benefits to Finnish society: export revenues, taxes, employment, and well-being.

Favorable policies create a competitive operating environment, attracting investors to Finland. Economic well-being ensures the enabling conditions for protecting biodiversity. Forests are managed in a responsible way and nature and climate values maintained and improved. In other words, a win-win situation is attained where both nature and the economy flourish.

For the environmental coalition, the vision is rather defined by what it is not: “we want a forest industry that does not accelerate the loss of nature, heat up the climate or fuel overconsumption; that is socially just both in Finland and in the Global South or wherever in the world it is practiced, and we unfortunately believe that at the moment, at least the mainstream of the Finnish forest industry is not of this kind” (Extinction Rebellion Finland, 2023). In this vision, the level of logging is lower, state-owned natural-state forests are strictly protected, continuous growth is an increasingly prominent forest management method, the amount of clearcuts is diminishing, and environmental values are a priority in all operations. The polluter pays principle is applied to large forest companies, who have responsibility to restore the degraded environments. Finland attains its carbon neutrality and biodiversity goals.

A central issue addressed by the environmental coalition is the “pulp colonialism” of the Finnish forest companies in the Global South, most notably UPM’s operations in Uruguay (Extinction Rebellion Finland, 2023). The environmental coalition seeks to address these questions in the context of Finnish forestry, not as separate from it. In the vision of the environmental coalition, worker’s rights are respected both within Finland as well as abroad. The ultimate vision of the environmental coalition does not only concern forestry but more widely consumption at the societal level. Overconsumption was seen as the root cause of climate change and biodiversity loss.

7.2 Actors’ understandings of justice within the forest sector

Table 1 presents findings for the research question 2. These results are further described in this chapter. The findings were guided by both the themes that emerged from the

materials as well as the theoretical literature on just transition. Many of the observations were consistent with earlier research on forest coalitions (Harrinkari et al., 2016), implying the robustness of the results. An overview of the findings for the RQ2 are summarized in table 1.

Table 1. Summary of results for research question 2.

	The administrative coalition	Forestry coalition	Environmental coalition
Reference group	Actors at the national level	Forestry actors, Finnish society, global markets	Nature and other species, workers and citizens globally
Central justice issues	No issues identified	Limiting landowner's rights and the need for compensation in situations where conservation leads to economic losses; ensuring an equitable playing field for industrial operators	Productionist values override all other perspectives, both in forest management and in societal decision-making
Preferred policy measures	Information guidance and economic guidance	Voluntary commitments and certificates, economic guidance	Binding regulation, economic guidance
Who has the power or possibility to change the forest sector?	Forest owners	Policymakers, forest corporations	Policymakers, forest corporations
Source of moral justification	National well-being	National well-being, satisfaction of global demand in a climate-friendly way, offering consumers responsible choices	Good state of the environment
Philosophical understandings of justice	Liberal justice and ecological solidarity	Liberal justice	Ecological solidarity
Central rights and responsibilities	Responsibility towards nature, property rights, right for a healthy environment, rights of the Sámi people, and freedom of work and business (No patterns following the lines of the coalitions were identified)		

7.2.1 Reference group

For this study, a reference group is defined as a group that should be taken into account in decisions concerning the Finnish forest sector. The analysis showed that the actors' perceptions of these relevant groups differ significantly. Table 2 shows the most frequently occurring reference groups mentioned by coalitions.

Table 2. Reference groups identified by coalitions.

	Administrative coalition	Forestry coalition	Environmental coalition
Most frequent mentions	Forest industry (28) Finnish society (27) Forest owners (18) Investors (10) Nature (8) Forestry workers (6) Small entrepreneurs (6) Regions and local actors (5)	Forest industry (24) Forest owners (17) Finnish society (12) Consumers (11) Indigenous people (5) Nature (5) Global (5) Investors (4)	Nature (24) Forestry workers (19) Citizens (16) Global (14) Forest owners (14) Sámi people (13) Finnish society (8) Regions (6) Future generations (6)
Total mentions	122	93	130

Both the administrative coalition and forestry coalition recognize the forest industry, forest owners, and the Finnish society as the most important reference groups. Both coalitions stress that the forest industry benefits the Finnish society as a whole through its economic impact. Both coalitions share the desire to get international bioeconomy investments in Finland.

The administrative coalition finds the reference group of justice from the national level. In this view, there is an effort to find an optimal solution benefitting different national actors. The national focus is likely due to the fact that the governance coalition only has authority over the actors within Finland.

The environmental coalition and the forestry coalition, on the other hand, saw the Finnish forest industry in the global context. Whereas for the forestry coalition this meant the global markets, consumers, and competitors, the environmental coalition stressed the local actors in the Global South. Finnish forestry was seen in the context of global climate justice. Extinction Rebellion Finland paid special attention to the

operations of Finnish forestry corporations in the Global South, especially UPM's operations in Uruguay (Extinction Rebellion Finland, 2023).

All coalitions and nearly all actors consider the private forest owners as an important reference group. There are multiple expressions among all three coalitions that the capacity of forest owners to make decisions about their land should be strengthened: "The acceptability, effectiveness, and implementation of climate action are enhanced when landowners have the opportunity to take climate action that supports their values and goals for their land, such as economic viability" (Ministry of Agriculture and Forestry Finland, 2022). For many actors it is important that the landowner has the possibility, for example, to implement nature values if that is their priority. This could be improved by ensuring that landowners are aware of the valuable natural sites on their land and the different options for implementing protection, as suggested by The Central Union of Agricultural Producers and Forest Owners (n.d.), a representant of Extinction Rebellion (Extinction Rebellion Finland, 2023) and Tapio (Saaristo, 2023); and ensuring that the landowner would be compensated for protecting biodiversity (suggested by Greenpeace, n.d.-a).

Results were consistent with earlier research, where coalitions' views on groups whose welfare is of greatest concern were identified (Harrinkari et al., 2016). In addition, this research suggests that the environmental coalition sees nature and other species as an important reference group.

7.2.2 Central justice issues

Throughout the materials, there were multiple cases where justice was discussed at a very general level or mentioned as an abstract goal, without identifying specific issues or actors. In addition, there were quotations that were identified as a reference to justice based on the criteria explained in the methods section, but no specific justice issue was identified. As can be seen from table 3, actors identified specific issues of justice to varying extents. Although the administrative coalition uses justice as an explicit frame, they did not identify significant issues or injustices.

Table 3. All references to justice and cases where a justice issue was identified.

	Administrative coalition	Forestry coalition	Environmental coalition
References to justice	31	11	101
References where a specific issue was identified	1	7	41

The forestry coalition identified two distinct justice issues. The Central Union of Agricultural Producers and Forest Owners raised the issue of limiting landowner’s rights and the need for compensation in situations where the protection of biodiversity values leads to economic losses (The Central Union of Agricultural Producers and Forest Owners, n.d.). Another issue was the importance of ensuring an equitable playing field for industrial operators: ”We don't want a world where some people are freeriders and others’ competitiveness suffers” (Bhushan, 2021). In this view, uneven operating environments put industrial actors in an unequal position, as some actors benefit at the expense of others.

Environmental coalition, on the other hand, is an avid identifier of issues of justice. They point out that while the forest industry produces economic well-being, forests and their species themselves suffer (The Finnish Association for Nature Conservation, 2022b), worsening also the prospects of future generations. In addition, such well-being is produced at the expense of workers with poor working terms and conditions. The power of large forestry corporations does not limit itself within the Finnish boundaries, but causes environmental degradation and social problems also in Brazil and Uruguay (Extinction Rebellion Finland, 2023).

The environmental coalition sees that the productionist values seem to override all other perspectives, both in forests and in societal prioritization and decision-making. In its view, even the state does not make the effort to protect natural-state forests in its own lands, runs its National Forestry Office (Metsähallitus) with contradictory objectives, and maintains environmentally harmful subsidies. Environmental organizations and activists are alone in ensuring nature values (Käyhkö, 2024), even though nature benefits everyone. According to Extinction Rebellion, the dominance of the productionist perspective even limits the perceived scope of possibilities: “A single industrial sector has been allowed to define what is general knowledge. And this significantly limits people's

sociological and economic and general survival imagination in this age” (Extinction Rebellion Finland, 2023).

These results concerning the environmental coalition are interesting when considered in tandem with the findings of Harrinkari et al. (2016). In their findings, the environmental coalition identifies forestry's negative impact on forest biodiversity as the primary issue within the sector. The two results are strongly consistent, but in our results, the environmental coalition sees the issue from a wider perspective, also paying attention to uneven power relations.

7.2.3 Preferred policy measures

Preferred policy measures were identified in the materials and results are presented in table 4. The administrative coalition preferred information and economic guidance. The forestry coalition considered voluntary commitments and certificates as the preferred policies but also expressed wishes for economic incentives. The environmental coalition, on the other hand, preferred binding regulation. There were also wishes to change the current economic incentives. The Ministry of the Environment differed from the rest of the environmental coalition by counting on information guidance (6 mentions), being the only actor within the coalition promoting them. In this sense, the Ministry of the Environment followed other governmental actors.

Table 4. Preferred policy measures.

	Administrative coalition	Forestry coalition	Environmental coalition
Information guidance	14	0	6
Binding regulation	4	2	10
Economic guidance	9	8	10
Voluntary commitments and certificates	4	14	1
Totals	31	24	27

An interesting comparison could be made between the national governmental actors and the EU level. The materials revealed that the European Commission, which was placed

outside of the coalitions, promoted binding regulation (10 mentions), whereas information guidance had a smaller role (3 mentions).

7.2.4 Who has the power or possibility to change the forest sector?

The textual material revealed that the three coalitions acknowledged power dynamics within the forest sector and identified actors capable of influencing its direction. The perceived power dynamics were discerned through claims of someone having agency or influence, or whenever someone was directly appealed to. It was not always clear what actors wanted to be changed or in what way. The most important results can be found in table 5.

Table 5. Actors with most perceived power to influence the future of the forest sector.

	Administrative coalition	Forestry coalition	Environmental coalition
Most frequent mentions	Forest owners (15), Forest managers (5), EU (4), Governance (4)	Policymakers (19), Forest corporations (13), Forest owners (6) Private sector (6), Investors (5)	Policymakers (43), Forest corporations (35), Governance (10), Private sector (6), Forest owners (5)
Total mentions	38	55	115

Compared to other coalitions, the environmental coalition is especially eager to reveal powerful actors. Greenpeace, in particular, directly appeals to decision-makers (32 mentions as a powerful actor) and forest corporations (31 mentions as a powerful actor). This eagerness to reveal power structures is likely related to the findings reported in chapter 7.3.3. On the other hand, there are also efforts within the environmental coalition to reveal those who do *not* have power: “it is quite a small minority of environmental movement representatives who see that the workers in the various factories or industries bear the main responsibility for this biodiversity loss, it is rather seen that the responsibility lies with the lobbyists, the proprietors, and political steering” (Extinction Rebellion Finland, 2023).

The forestry coalition also emphasizes the role of decision makers and therefore seeks to influence them. The Finnish forest industry is seen as an important climate solution

provider, but to succeed, it needs to be supported by policymakers: “realizing the climate potential of wood processing requires bold choices and decisions from decision-makers” (Finnish Forest Industries Federation, 2020). Whereas the environmental coalition wants to mostly change the national-level policies, within the forestry coalition there are explicit efforts to influence the decision-making at the EU level: “focusing on cross-governmental EU influencing in order to improve the wood availability and competitiveness in the forest sector” (Lehtomäki et al., 2023). The environmental coalition, on the other hand, tends to use the EU commitments as a justification for pushing for national biodiversity action: “As the EU Biodiversity Strategy calls for, all of Europe's remaining old-growth and primeval forests should be protected, not boiled down to pulp or burned. Finland should speed up the national implementation of the target and ensure adequate resources for conservation” (Kosonen, 2021).

7.2.5 Moral justification

Actors presented different moral justifications for their actions and demands. Such moral justifications were identified from explicitly set goals for action, general reasonings for action or demands, or moral claims presented by actors. Based on this criteria, altogether 96 indications of moral justification were identified from the materials.

National well-being was identified as the primary moral justification of the administrative coalition: “the vision of the National Forest Strategy 2035 is to pursue growing well-being from and for forests” (Ministry of Agriculture and Forestry Finland, 2023). Economic growth attained by the means of forest industry was an important aspect of building such well-being, as expressed by Natural Resources Institute Finland: “Finland needs a viable forest sector” (Lintunen et al., 2023). Reconciliation of different interests was also considered important in itself, as discussed in chapter 7.3.3.

The forestry coalition shares the vision of well-being in Finland, and based on the materials, it can be considered a moral justification expressed by the actors. Another moral justification, especially promoted by Finnish Forest Industries and UPM, is the satisfaction of global demand in a climate-friendly way and offering consumers the possibility for a responsible choice. As expressed by UPM, “Our products help our customers and consumers make more responsible choices. This is a good thing for all of us” (Mikkola, 2022). This comes with a strong reliance on markets as a transformative

force towards a more sustainable planet, and a belief that eventually environmentally unsustainable practices do not succeed: “‘good’ companies act responsibly and are rewarded for it” (Råman, 2022).

Rather than adapting markets to nature, nature is adapted to the needs of markets by for example increasing forest growth. Within the forestry coalition, while there is recognition of the significance of safeguarding biodiversity, it is primarily motivated by the imperative to maintain the competitiveness of the forest industry: “Diverse nature is the foundation of the forest bioeconomy” (The Central Union of Agricultural Producers and Forest Owners, n.d.).

The environmental coalition is rather unified in taking a good state of the environment as their moral justification. This view is expressed by The Finnish Association for Nature Conservation: “It is not enough for us that species are hanging on the brink of extinction or endangerment. Forestry is sustainable only when species and forests are in good condition” (The Finnish Association for Nature Conservation, n.d.). Actions that considerably harm ecological sustainability cannot be justified. The environmental coalition sees overconsumption as the root cause of environmental harm and is strongly opposed to: “replacing plastic products made from fossil fuels with new single-use products made from pulp is not a sustainable solution if it only allows the consumerist and single-use culture to continue” (Käyhkö, 2023a).

Attitudes towards consumption are one of the key differences between the environmental coalition and some of the actors within the forestry coalition. Finnish Forest Industries and UPM state that consumers wish to consume more sustainable products, and this demand can be met with forest-based products. They consider the production in Finland as more environmentally sustainable than it would be in some other countries where no environmental or social regulation is taking place. Thus, it is more sustainable and even ethical to satisfy the global demand with Finnish products. “If Finland did not produce forest-based products, the growing global demand would be met with fossil raw materials and energy, or with processed wood products produced elsewhere in the world” (Finnish Forest Industries Federation, 2020). The level of consumption is seen as an unchangeable reality that will inevitably be satisfied in one way or another.

These results were consistent with those of Harrinkari et al. (2016) in terms of the orientation of basic value priorities of coalitions. In their results, the forestry coalition values maintaining the forest industry as a lucrative business, and the environmental coalition values environmental protection.

7.2.6 Philosophical understandings of justice

Recognizing features of liberal justice or ecological solidarity in the materials required careful consideration and interpretation. The results are available in table 6. As discussed in chapter 5.1, liberal justice prioritizes the interests and rights of individuals, freedom of choice, and equal distribution of harms and benefits. There is also an underlying tendency to think that in the long run, helping others benefits the individual him/herself. (Huttunen & Rekola, 2021.) In this study, the following ideas were interpreted as liberal justice: focus on distribution of harms and benefits; the emphasis on individual freedom; the idea that economic profit is a precondition for nature conservation, or, conversely, that nature must be protected for the sake of economic growth; and in some cases, the promotion of win-win solutions, where the values of nature and economic or societal benefits support each others so that both are better off.

As can be seen from table 6, this concept of justice was a theme repeated throughout the forestry coalition. UPM expresses this view very clearly: “To survive and develop, the bioeconomy is an alliance between nature and the economy, where both thrive. We need both a functioning economy and the natural world surrounding us. The prosperity they create will enable us to fulfill ourselves, and to continue to look after each other and the environment” (Lehesvirta, 2020).

The administrative coalition also made several references to liberal justice, with particular emphasis on freedom of choice and the equal distribution of benefits and losses. These were referred to in particular by governance actors (Finnish government, 2022; Ministry of Agriculture and Forestry Finland 2022). On the other hand, the needs of different groups were also highlighted, which is a feature of ecological solidarity.

As can be seen from table 6, the environmental coalition is a strong advocate of ecological solidarity. Ecological solidarity was discerned from statements where there was a focus on the needs rather than the rights of others, and whenever interests of nature and other species were explicitly addressed independently of human needs. In

principle, appealing to the needs of future generations was also considered a sign of ecological solidarity. On the other hand, the needs of future generations cannot be anticipated and can also be used as a rhetorical gesture to reinforce one's own demands, whatever they may be. For example, the Climate Roadmap of the Forest Industry states: “by preserving and developing the wood processing industry in Finland, the incentive to pass forests on to future generations in excellent condition will also be maintained” (Finnish Forest Industries Federation, 2020). This statement represents liberal justice rather than ecological solidarity, because the needs of future generations are used as a justification to strengthen the individual freedom to conduct a business.

Table 6. Ecological solidarity and liberal justice.

	Administrative coalition	Forestry coalition	Environmental coalition
Ecological solidarity	4	1	14
Liberal justice	9	22	1
Totals	13	23	15

7.2.7 Central rights and responsibilities

How much actors referred to generally recognized rights and responsibilities did not reflect the boundaries of coalitions. Rather, it was above all the governmental actors – Ministry of the Environment and Ministry of Forestry and Agriculture – who referred to them. The most frequently mentioned ones were responsibility towards nature (17 mentions), property rights (16 mentions), right to a healthy environment (6 mentions), rights of the Sámi people (3 mentions) and freedom of work and business (3 mentions). Property rights were primarily used to refer to landowners. The Ministry of the Environment (2022) and The Central Union of Agricultural Producers and Forest Owners (n.d.) recognized a possible tension between property rights and the responsibility towards nature and/or the right for a healthy environment, calling for efforts of reconciliation.

7.3 Competing justice-related frames

RQ3 aims to shed light on some patterns of politicization and depoliticization employed by different actors in matters pertaining to justice. This approach has the potential to

reveal where there are efforts to increase public debate or legitimize the current state of affairs.

Two groups of competing frames were discovered: 1. competing frames of sustainability, responsibility, and justice, used to frame social and environmental issues related to forestry; and 2. competing frames of struggle, dialogue, and reconciliation, used to frame disagreement. The following chapters aim to shed light on the political significance of these competing frames. It was observed that the environmental coalition, especially Greenpeace and Extinction Rebellion, are actively politicizing the social and environmental matters of the Finnish forest sector. The forestry coalition, on the other hand, appears to make efforts to depoliticize them.

7.3.1 Framing social and environmental issues of forestry

Based on the materials, three competing frames on social and environmental aspects of Finnish forestry were identified: sustainability, responsibility and justice. The criteria for identifying justice in the materials is discussed in the methods section. Responsibility was identified from explicit statements appealing to responsibility as a goal, ideal, or starting point of action. The frame of sustainability was also identified from explicit mentions of the word, but also from references to the need to take into account different aspects; social, ecological, and economic. The results are available in table 7.

Table 7. Frames of justice, sustainability and responsibility.

	Administrative coalition	Forestry coalition	Environmental coalition
Justice	31	11	101
Sustainability	39	26	8
Responsibility	8	42	14
Totals	78	79	123

The forestry coalition addresses social and environmental aspects through the frames of responsibility and sustainability. The forest coalition uses the frame of sustainability most frequently in the context of forest management. Frames of sustainability and justice are frequent within the administrative coalition. For the environmental coalition, justice is clearly the most dominant frame.

All three frames have a specific political significance related to them. Both responsibility (Löfmarck et al., 2017) and sustainability (Pietarinen et al., 2023) are concepts that although vague in the strict meaning of the word, have been incorporated in policies and industry practices. There are metrics, standards, indicators, and guidelines – the concepts have been operationalized and institutionalized. Both offer *how to's* on conducting industrial activities in a satisfactory way.

Justice, on the other hand, remains largely unoperationalized in policies and industry practices. While sustainability and responsibility can offer limits to pre-defined operations, justice is not only about *how* to go about doing some things – it also has the potential to question whether operations are legitimate at all. A demand for justice does not only ask to respect pre-defined boundaries, but to repair the conditions under which actors operate by a reallocation of resources or power. One could argue that the operationalization of sustainability and responsibility have been processes of rendering them politically non-transformative (Pietarinen et al., 2023). Justice, on the other hand, remains a politically transformative frame, as its meaning is under debate.

Interesting differences were discerned in how the administrative coalition and the environmental coalition used the frame of justice. In this sense, the Ministry of the Environment resembled more other administrative units, like the Ministry of Forestry and Agriculture, than actors in the environmental coalition. For governmental actors, justice is often addressed on a very general level and most often without any detailed account of what it means and even who it concerns. This is also recognized in the commentary of the National Biodiversity Strategy (Ministry of the Environment Finland, 2022): “the strategy recognizes the need for reconciliation and compensation of the most significant injustices required by a just transition, but does not include clear objectives in this respect.”

Other actors within the environmental coalition, however, often had a specific context where justice was applied:

“if we can conclude that forestry is the main cause of biodiversity loss especially in forests in Finland, shouldn't the responsibility for financing conservation, for example, lie with the industry that uses the forest?” (Extinction Rebellion Finland, 2023). Frames

of sustainability and responsibility, on the other hand, were often mentioned in contexts where they were criticized or greenwashing was revealed: “Forest certificates, marketed as responsible forestry, will not save natural forests” (Greenpeace Finland, 2021).

Sustainability and responsibility, thus, can be interpreted as depoliticizing frames. Justice, on the other hand, is a frame that can call the prevailing order into question and thus has the potential to act in a politicizing manner.

7.3.3 Framing disagreement

The way disagreement is framed proved to be an important means of politicization and depoliticization for actors across the Finnish forest policy arena. Three competing frames were identified from the materials: dialogue, struggle, and reconciliation. Occurrences of these frames in the materials are available in table 8.

Table 8. Frames of dialogue, struggle and reconciliation.

	Administrative coalition	Forestry coalition	Environmental coalition
Dialogue	6	24	12
Struggle	-	-	50
Reconciliation	18	10	13
Totals	25	135	75

The administrative coalition as well as the Ministry of the Environment frequently explicitly mentioned reconciliation of different interests as an important means of attaining good and just results, often involving participation of multiple actors: “the strategy sought to reconcile regional interests and the different needs of stakeholders as far as possible.” (Ministry of Agriculture and Forestry Finland, 2023). In the frame of reconciliation, different interests and possible tradeoffs between them are recognized, but there is an effort to find an optimal solution.

Dialogue was a frame preferred by the forestry coalition, especially UPM. In the frame of dialogue, there are often efforts to normalize and depoliticize disagreement: “It is healthy that the flaws in the system are brought to light and can be openly discussed. No system is perfect” (Suuriniemi, 2023). However, public disagreement is seen as a

problem and annoyance: “The age of social media has escalated the climate of debate and made it easy to shout out strong opinions. Fortunately, there is also constructive debate, and often the most important negotiations are hidden from the public eye” (Warsta, 2023a). This observation is consistent with the fact that UPM has been accused of “dialogue washing” (Snellman, 2023), which exploits the norms and ideals associated with dialogue to obscure the different interests and replace real negotiations and opportunities to political influence with seemingly constructive discussions.

Only within the environmental coalition, the frame of struggle was utilized. Extinction Rebellion and Greenpeace were especially avid in exploiting this frame. Actions of challenging, demanding, contesting, and calls for activism were interpreted as belonging to the frame of struggle: “demand change and responsibility from forest companies by signing the petition!” (Greenpeace Finland, 2023d). Active efforts to reveal and change discursive power relations were also identified to belong to the frame of struggle: “For too long, forestry companies have managed to silence opponents of logging by emphasizing the role of the forest industry as a driver of the Finnish economy in the public debate. However, not everything has to be tolerated, because the use of forests concerns our common environment” (Greenpeace Finland, 2023e).

In the frame of struggle, disagreement is not seen as a problem but as a means of democratization. Such a view of societal disagreement is consistent with the post-political theory (Pichler & Brand, 2020), where conflict and contestation are seen as essential for truly democratic negotiation. Struggle is calling for citizens to activate and raise their voices and is thus a politicizing frame.

8 Discussion

Just transition is a concept that comes with an agenda-setting effect (Weller, 2019) with the potential to change the prevailing social order. Referencing to just transition can thus be risky if one benefits from the status quo.

Longhurst and Chilvers (2019) suggest that sociotechnical visions can vary according to the institutional settings where they were produced. In their case study, state, business and academic research produced visions that were more tightly related to the dominant sociotechnical imaginaries compared to ones that were produced within the civil society.

Whereas the visions originating from civil society tend to emphasize a broader set of ethical and environmental issues, ones produced within the state, business, and academia define these issues more narrowly and emphasize technological change. Although such a tendency is by no means absolute, a similar phenomenon was observed in this study. The environmental coalition tends to politicize and democratize the social and environmental issues of Finnish forestry, framing issues through justice, whereas the administrative and forestry coalitions are more moderate and tend to depoliticize these issues. Similarly, the demands for justice mostly followed the lines of these institutional settings.

The concept of just transition is rarely used to address the Finnish forest sector. However, underlying demands of justice and even that of just transition were observed in this research. Not all these demands were similar, but differences can be discerned in how this was done. The difference between how the environmental coalition and the administrative coalition applied the frame of justice can serve as a fruitful entrance point to make a distinction between two possible different approaches to justice.

As discussed, the administrative coalition tends to explicitly refer to justice without contextualizing it and specifying its meaning, whereas the environmental coalition addresses injustices more directly. The first approach takes its starting point from giving a positive conception of justice (Healy & Barry 2017), referring to an idealization of what justice is. This might take the form of principles or guidelines of what justice involves. Such an approach is employed by established actors such as International Labour Organization (International Labour Organization, 2015), and is also the mainstream approach within the academic literature of just transition. These pre-determined ideals are then fit to specific cases from top-down. This approach takes consensus-building as its communication strategy, minimizing the possibility of disagreements with its pre-determined rules. References to rights and responsibilities can also adhere to this conception of justice, as they are “universally” accepted principles.

The alternative, bottom-up approach takes its starting point from recognizing the perceived inequalities that already exist (Healy & Barry 2017). The results of this study demonstrate that many actors within the environmental coalition aim to reveal power dynamics within the Finnish forest sector and challenge them, implying that they employ this approach. Whereas the top-down approach to just transition is consensus-seeking,

the bottom-up approach is explicitly political and associated with the idea of struggle and aims to foster democratic debate and active citizenship as a means to attain transformative change (Pepermans & Maesele, 2016.)

The suggested distinction between the top-down and bottom-up approaches to just transition can guide us closer to some basic tensions within the concept of just transition. The dominant top-down approach would suggest that just transition must be pursued according to a pre-defined criteria and possibly centrally managed, a bottom-up approach to just transition could entail more democratic participation. Such a difference in approaches requires further examination in future research. It is important to create general guidelines to what just transition is so that the concept is not applied to arbitrary contexts or hijacked to serve dubious purposes. On the other hand, conforming to ideals rather than recognizing the current injustices is unempirical and can lead to sweeping injustices under the carpet (Weller, 2019).

All these observations lead to the conclusion that the politically sensitive nature of just transition has not been sufficiently addressed in the literature. Not enough attention has been paid to who promotes it, who resists it, and why. This work has demonstrated that actors envision and promote the need for justice and just transition to varying extents. For the concept of just transition to surface, the simple criterion of an industry being a climate risk is not enough. It can then be asked: what are the necessary preconditions for the political landscape of a given sector for the concept of just transition to emerge? What does it require from the different actors?

Finally, the concept of just transition requires critical examination. Applying it might be considered irrelevant or undesirable for good reasons. All in all, the agenda-settingness of just transition calls for more attention. This research has addressed the frame of justice in length, but the concept of transition has gained less attention. Transition is usually associated with the idea of creating a planned change. Often, state-led just transitions involve a requirement to create a shared vision of the future among the different stakeholders (Weller, 2019). These visions are required to emphasize long-term objectives over short-term goals. This can be problematic if it is done at the cost of ignoring the present or short-term challenges, such as immediate problems created by factory closures (Weller, 2019). An external demand for a transition that focuses only on a long timescale can lead to new injustices.

However one chooses to frame it, things in the Finnish forest industry are already in flux. The future is not being built from a clean slate, but from the messy reality – not starting from a level playing field, but with power dynamics already in place.

9 Conclusions

This research has addressed different sociotechnical visions expressed within the Finnish forestry sector – a polarized field characterized by multiple pressures for change. Even though the state has employed different policies aiming to reform the sector over the years, the concept of just transition has not broken through to the Finnish forest policy arena. Using qualitative content analysis, this study has focused on how justice appears in the visions put out by different actors. It was observed that actors have different understandings of what justice means, how it applies to the Finnish forest sector, or whether it is a relevant framing at all.

Based on earlier research (Harrinkari et al., 2016) actors were grouped into three coalitions. The forestry coalition envisions a future where Finnish forestry products satisfy global demand and are seen as one solution to climate change. It prefers to address ecological and social issues related to forestry through the depoliticizing frames of responsibility and sustainability. The administrative coalition prioritizes the wellbeing of the Finnish nation and sees the forest industry as an important means to do so, thus wishing to maintain its operating conditions. Simultaneously, there is an aim to reconcile different interests. The environmental coalition aims to maintain values of nature and actively uses the framing of justice, politicizing the discourse.

The literature on just transition often departs from the starting point of defining the limits of what is just. However, the present study shows that there are pertinent questions to be asked already before that. It invites future research to pay more attention to the question of what makes some actors embrace the concept of just transition and others reject it.

Some of the results attained in this study follow the lines of earlier research (see, for example, Harrinkari et al., 2016; Longhurst & Chilvers, 2019), suggesting that they are robust in at least some aspects. However, this earlier research did not focus on how

actors addressed justice. Identifying an idea as elusive as justice from heterogeneous textual materials has required interpretation and consideration of the textual context, hinting that further research is needed to establish the full reliability of the results of this study.

10 References

- Atteridge, A., & Strambo, C. (2020). *Seven principles to realize a just transition to a low-carbon economy* (SEI Policy Report, p. 20). Stockholm Environment Institute. <https://www.sei.org/wp-content/uploads/2020/06/seven-principles-for-a-just-transition.pdf>
- Berg-Andersson, B., Kulvik, M., Lintunen, J., & Orfanidou, T. (2022). *FutureForest2040 – Suomen metsäalan rakenteelliset muutokset sekä markkina- ja työllisyysnäköymät vuoteen 2040* (131; ETLA Raportit 131). Elinkeinoelämän tutkimuslaitos. <https://www.etla.fi/julkaisut/raportit/futureforest2040-suomen-metsaalan-rakenteelliset-muutokset-seka-markkina-ja-tyollisyysnakymat-vuoteen-2040/>
- Bukamal, H. (2022). Deconstructing insider–outsider researcher positionality. *British Journal of Special Education*, 49(3), 327–349. <https://doi.org/10.1111/1467-8578.12426>
- Burnham, M., Eaton, W., Selfa, T., Hinrichs, C., & Feldpausch-Parker, A. (2017). The politics of imaginaries and bioenergy sub-niches in the emerging Northeast U.S. bioenergy economy. *Geoforum*, 82, 66–76. <https://doi.org/10.1016/j.geoforum.2017.03.022>
- Donner-Amnell, J. (2022). Miksi Suomen metsäsektorin transformaatio on ollut vaikeaa? *Vuosilusto*, 2022(14), 66–87.
- Drisko, J. W., & Maschi, T. (2015). *Qualitative Content Analysis*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780190215491.003.0004>
- Duit, A., Feindt, P. H., & Meadowcroft, J. (2016). Greening Leviathan: The rise of the environmental state? *Environmental Politics*, 25(1), 1–23. <https://doi.org/10.1080/09644016.2015.1085218>
- Elford, G. (n.d.). Equality of Opportunity. In *The Stanford Encyclopedia of Philosophy* (Fall 2023, Vol. 2023). Metaphysics Research Lab, Stanford University. Retrieved April 30, 2024, from <https://plato.stanford.edu/archives/fall2023/entries/equal-opportunity/>
- Extinction Rebellion Finland. (2023, November 13). *Metsäteollisuuden oikeudenmukainen siirtymä-paneeli*. <https://www.youtube.com/watch?v=aYBYeKr7ZI>
- Finnish Forest Industries. (2020). *Vihreä ja vireä talous: Metsäteollisuuden ilmastotiekartta 2035* (p. 18). https://global-uploads.webflow.com/5f44f62ce4d302179b465b3a/5fae9c3de86a240e06b76565_Metsa_Esite_Email.pdf
- Fortran. (n.d.). *Fortran*. Retrieved April 29, 2024, from <https://fortran.fi>
- Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, 36(3), 399–417. <https://doi.org/10.1016/j.respol.2007.01.003>
- Halonen, T., Korhonen-Kurki, K., Niemelä, J., & Pietikäinen, J. (2022). *Kestävyyden avaimet: Kestävyytieteen keinoin ihmisen ja luonnon yhteiselo*. Gaudeamus.
- Harrinkari, T., Katila, P., & Karppinen, H. (2016). Stakeholder coalitions in forest politics: Revision of Finnish Forest Act. *Forest Policy and Economics*, 67, 30–37. <https://doi.org/10.1016/j.forpol.2016.02.006>
- Huttunen, S., & Rekola, A. (2021). Reilu siirtymä, ekologinen solidaarisuus ja kestävyysmurroksen mahdollisuus. *Alue Ja Ympäristö*, 50(2), 154–164. <https://doi.org/10.30663/ay.109042>
- Hyvärinen, E., Juslén, A., Kempainen, E., Uddström, A., & Liukko, U.-M. (2019). *The Red List of Finnish Species 2019* (Vol. 2019). Ympäristöministeriö & Suomen ympäristökeskus. <https://helda.helsinki.fi/items/2ec69a48-d943-488c-927f-19bbf9f92cb5>
- Ilmastolaki, 423/2022. Adopted in Helsinki July 1, 2022. Available in <https://www.finlex.fi/fi/laki/smur/2022/20220423>
- International Labour Organization. (2015). *Guidelines for a just transition towards environmentally sustainable economies and societies for all*. https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf
- Jasanoff, S. (2015). *Future Imperfect*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226276663.003.0001>
- Jia, G., Shevliakova, E., Artaxo, P., De Noblet-Ducoudré, N., Houghton, R., House, J., Kitajima, K., Lennard, C., Popp, A., Sirin, A., Sukumar, R., & Verchot, L. (2019). Land–climate interactions. In P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D.C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J.

- Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, *Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. IPCC. <https://www.ipcc.ch/srccl/>
- Junttila, S., & Pelttari, M. (2024, February 4). Suurin osa metsästä hakatusta puusta päätyy energiaksi. *Helsingin Sanomat*. <https://www.hs.fi/mielipide/art-2000010326343.html>
- Karhunmaa, K. (2019). Attaining carbon neutrality in Finnish parliamentary and city council debates. *Futures*, 109, 170–180. <https://doi.org/10.1016/j.futures.2018.10.009>
- Ketola, T., Boström, C., Herzon, I., Jokimäki, J., Kallio, K., Kulmala, L., Laine, I., Lehikoinen, A., Nieminen, T. M., Oksanen, E., Pappila, M., Silfverberg, O., Sinkkonen, A., Sääksjärvi, I., & Kohtiaho. (2022). *Kohti luontoviisasta Suomea: Keinoja luontoposiitivisuuden saavuttamiseksi* (2; Suomen Luontopaneelin Julkaisuja, p. 21). Suomen Luontopaneeli. <https://luontopaneeli.fi/wp-content/uploads/2022/06/luontopaneelin-julkaisuja-2-2022-kohti-luontoviisasta-suomea.pdf>
- Kivimaa, P., Huttunen, S., Lähteenmäki-Uutela, A., Heikkinen, M., Juhola, S., Kaljonen, M., Käyhkö, J., Lund, P., Näkkäljärvi, K., & Vainio, A. (2021). Kuinka oikeudenmukaisuus voidaan huomioida ilmastopolitiikassa? The Finnish Climate Panel. <https://doi.org/10.31885/9789527457016>
- Koskinen, M., Paananen, K., & Pirinen, M. (2023). *Likainen työ: Ilmastopolitiikan voittajat ja häviäjät*. Like.
- Kuchler, M. (2014). Sweet dreams (are made of cellulose): Sociotechnical imaginaries of second-generation bioenergy in the global debate. *Ecological Economics*, 107, 431–437. <https://doi.org/10.1016/j.ecolecon.2014.09.014>
- Kulvik, M., Lintunen, J., Kunttu, J., & Orfanidou, T. (2022). *FutureForest2040—Suomen metsäalan rakenteelliset muutokset sekä markkina- ja työllisyysnäkökymät vuoteen 2040* (115; Etna Brief, p. 6). Elinkeinoelämän tutkimuslaitos.
- Lassila, A. (2023, February 14). Metsäjätit erkanevat yhä kauemmas toisistaan – aika näyttää kuka teki parhaat valinnat. *Helsingin Sanomat*. <https://www.hs.fi/talous/art-2000009385618.html>
- Lempinen, H., & Vainio, A. (2022). “Selviääkö tästä mitenkään?": Turpeesta elantonsa saavien kokemukset suomalaisen turvepolitiikan oikeudenmukaisesta siirtymästä.
- Leppä, J. (2021, July 16). Suomen nielutavoite on haastava, mutta saavutettavissa. *Maa- Ja Metsätalousministeriön Blogi*. <https://mmm.fi/blogit/-/blogs/suomen-nielutavoite-on-haastava-mutta-saavutettavissa>
- Lintunen, J. (n.d.). *EU:n komission tiedonanto vihreän kehityksen ohjelmasta (Green deal) 11.12.2019: Eduskunnan suurelle valiokunnalle aiheesta E 61/2019*. <https://www.etla.fi/ajankohtaista/lausunnot/eduskunnan-suurelle-valiokunnalle-koskien-asiaa-e-61-2019-vp/>
- Lintunen, J., Kohl, J., Asikainen, A., Jyske, T., Maunuksela, J., & Lehto, J. (2023). *Suomi elää metsästä myös 2035 – Keskustelunavaus metsäsektorin arvonlisän kaksinkertaistamiseen* (Luonnonvara- ja Biototalouden Tutkimus 14/2023). Luonnonvarakeskus. Retrieved September 27, 2023, from <http://urn.fi/URN:ISBN:978-952-380-620-7>
- Löfmarck, E., Ugglä, Y., & Lidskog, R. (2017). Freedom with what? Interpretations of “responsibility” in Swedish forestry practice. *Forest Policy and Economics*, 75, 34–40. <https://doi.org/10.1016/j.forpol.2016.12.004>
- Longhurst, N., & Chilvers, J. (2019). Mapping diverse visions of energy transitions: Co-producing sociotechnical imaginaries. *Sustainability Science*, 14(4), 973–990. <https://doi.org/10.1007/s11625-019-00702-y>
- Lukkari, J. (2019, October 23). Nyt jo 40 suljettua paperikonetta – alasajon vuosikymmen ei ole vielä ohi. *Talouselämä*. <https://www.talouselama.fi/uutiset/nyt-jo-40-suljettua-paperikonetta-alasajon-vuosikymmen-ei-ole-viela-ohi/c2e7aaa4-80b8-4bc1-81d9-2f64f40ca3fb>
- Ministry of Agriculture and Forestry. (n.d.a). *Kansainväliset ja EU:n metsäasiat*. Retrieved April 30, 2024, from <https://mmm.fi/metsat/kv-eu>
- Ministry of Agriculture and Forestry. (n.d.b). *Maankäyttösektorin sisällyttäminen EU:n ilmastotavoitteisiin*. Retrieved September 27, 2023, from <https://mmm.fi/lulucf>
- Ministry of Agriculture and Forestry. (n.d.c) *Metsätalous*. Retrieved April 29, 2024, from <https://mmm.fi/metsat/metsatalous#:~:text=Metsäpolitiikan%20päämääränä%20on%20turvata%20kestävän,johdetaan%20maa%2D%20ja%20metsätalousministeriön%20luonnonvaraosastolla.>
- Ministry of the Environment. (n.d.). *Luonnon monimuotoisuus ja luonnon-suojelu*. Retrieved April 30, 2024, from <https://ym.fi/luonnon-monimuotoisuus-ja-luonnon-suojelu>
- Metsähallitus. (n.d.). *Metsähallitus in brief*. Retrieved April 30, 2024, from <https://www.metsa.fi/en/about-us/organisation/>
- 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>
- Finnwatch. (2023.) *Oikeudenmukainen siirtymä – nyt!* <https://oikeudenmukainensiertyma.fi>
- Orasmaa, T. (2023). *Maaseudun tulevaisuus*. Vastapaino.
- Österberg, M., Karjalainen, M., Lintunen, J., Tammelinn, T., Asikainen, A., Vakkilainen, E., Toivonen, R., Virta, P., Henn, A., Nuutinen, E.-M., Kohl, J., & Hassinen, J. (2024). *Lankusta lääkkeisiin: Tuoteportfolion arvonnoususta uutta arvonlisää metsäsektorille* (1/2024; Metsäbiotalouden Tiedepaneelin Raportti, p. 36). Metsäbiotalouden tiedepaneeli. <https://metsatiedepaneeli.fi/wp->

- [content/uploads/2024/04/Lankusta-laakkeisiin-Tuoteportfolion-arvonnoususta-uutta-arvonlisaa-metsasektorille.pdf](#)
- Pauli, A., Kalliokoski, T., Joukio, R., & Kulovesi, K. (2021). Ilmastonmuutos ajurina metsäsektorin muutokselle. *Tieteessä Tapahtuu*, 39(3). <https://journal.fi/tt/article/view/109236>
- Pepermans, Y., & Maesele, P. (2016). The politicization of climate change: Problem or solution? *WIREs Climate Change*, 7(4), 478–485. <https://doi.org/10.1002/wcc.405>
- Pichler, M., Brand, U., & Görg, C. (2020). The double materiality of democracy in capitalist societies: Challenges for social-ecological transformations. *Environmental Politics*, 29(2), 193–213. <https://doi.org/10.1080/09644016.2018.1547260>
- Pietarinen, N., Harrinkari, T., Brockhaus, M., & Yakusheva, N. (2023). Discourses in Finnish forest policy: Cherry-picking or sustainability? *Forest Policy and Economics*, 147, 102897. <https://doi.org/10.1016/j.forpol.2022.102897>
- Pirtonen, Heidi. (2022, August 26). Suomi kuluttaa luonnonmateriaalejaan huomattavasti enemmän kuin muut EU-maat – materiaalitilinpito kuvaa luonnon hyödyntämistä. *Tieto & Trendit, Tilastokeskuksen Asiantuntija- Ja Ajankohtaisblogit*. <https://www2.stat.fi/tietotrendit/artikkelit/2022/suomi-kuluttaa-luonnonmateriaalejaan-huomattavasti-enemman-kuin-muut-eu-maat-materiaalitilinpito-kuvaa-luonnon-hyodyntamista/>
- Sarkki, S., & Heikkinen, H. (2010). Social Movements' Pressure Strategies during Forest Disputes in Finland. *Journal of Natural Resources Policy Research*, 2010(2), 281–296. <https://doi.org/10.1080/19390459.2010.487991>
- Smith, J. M., & Tidwell, A. S. (2016). The everyday lives of energy transitions: Contested sociotechnical imaginaries in the American West. *Social Studies of Science*, 46(3), 327–350. <https://doi.org/10.1177/0306312716644534>
- Snellman, O. (2023). Mitä on dialogipesu? Viherpesun uusi kuosi UPM:n ja Metsä Groupin sisältömarkkinoinnissa. *Elonkehä*, 2023(3). <https://www.elonkeha.com/2023/09/04/mita-on-dialogipesu-viherpesun-uusi-kuosi-upm-n-ja-metsa-groupin-sisaltomarkkinoinnissa/>
- Soimakallio, S., Kalliokoski, T., Lehtonen, A., & Salminen, O. (2021). On the trade-offs and synergies between forest carbon sequestration and substitution. *Mitigation and Adaptation Strategies for Global Change*, 26(1), 4. <https://doi.org/10.1007/s11027-021-09942-9>
- Soimakallio, S., Saikku, L., Valsta, L., & Pingoud, K. (2016). Climate Change Mitigation Challenge for Wood Utilization The Case of Finland. *Environmental Science & Technology*, 50(10), 5127–5134. <https://doi.org/10.1021/acs.est.6b00122>
- Sweeney, S., & Treat, J. (2018). *TRADE UNIONS AND JUST TRANSITION: The Search for a Transformative Politics* (Working Paper 11). Trade Unions for Energy Democracy. https://rosalux.nyc/wp-content/uploads/2021/09/tuedworkingpaper11_web.pdf
- Toivainen, T. (2021). A Player Bigger Than Its Size: Finnish Bioeconomy and Forest Policy in the Era of Global Climate Politics. In M. Backhouse, R. Lehmann, K. Lorenzen, M. Lühmann, J. Puder, F. Rodriguez, & A. Tittor, *Bioeconomy and Global Inequalities* (2021st ed.). Springer International Publishing AG.
- Tribaldos, T., & Kortetmäki, T. (2022). Just transition principles and criteria for food systems and beyond. *Environmental Innovation and Societal Transitions*, 43, 244–256. <https://doi.org/10.1016/j.eist.2022.04.005>
- Tuomainen, T., & Silfver, T. (2022). *Kasvihuonekaasuinventaarion ennakkotiedot vahvistavat: Maankäyttösektori päästölähde vuonna 2021, metsät pysyivät edelleen nettonieluna*. Natural Resources Institute Finland. <https://www.luke.fi/fi/seurannat/maatalous-ja-lulucsektorin-kasvihuonekaasuinventaarion-kasvihuonekaasuinventaarion-ennakkotiedot-vahvistavat-maankayttosektori-paastolahde-vuonna-2021-metsat-pysyivat-edelleen-nettonieluna>
- Vadén, T., Lähde, V., Majava, A., Toivanen, T., Eronen, J. T., & Järvensivu, P. (2019). Onnistunut irtikytkentä Suomessa? *Alue Ja Ympäristö*, 48(1), 3–13. <https://doi.org/10.30663/ay.76338>
- Van Wonterghem, A. (2024, March 28). Nieluja ja teknistä hiilensidontaa – Ovatko 2035 ilmastotavoitteet karkaamassa Orpon hallituksen käsistä? *Verde*. <https://www.verdelehti.fi/2024/03/28/nieluja-ja-teknista-hiilensidontaa-ovatko-2035-ilmastotavoitteet-karkaamassa-orpon-hallituksen-kasista/>
- 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>
- Viitanen, J., Mutanen, A., & Karvinen, S. (2023). *Metsäsektorin suhdannekatsaus 2023-2024* (93/2023; Luonnonvara- Ja Biotalouden Tutkimus). Luonnonvarakeskus (Luke). https://jukuri.luke.fi/bitstream/handle/10024/553908/luke-uo bio_93_2023.pdf?sequence=1&isAllowed=y
- Walk, P., Braunger, I., Semb, J., Brodtmann, C., Oei, P.-Y., & Kempfert, C. (2021). Strengthening Gender Justice in a Just Transition: A Research Agenda Based on a Systematic Map of Gender in Coal Transitions. *Energies (Basel)*, 14(18), 5985. <https://doi.org/10.3390/en14185985>
- 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>
- Weller, S. A. (2019). Just transition? Strategic framing and the challenges facing coal dependent communities. *Environment and Planning C: Politics and Space*, 37(2), 298–316. <https://doi.org/10.1177/2399654418784304>

Appendix: Materials selected in the analysis

Administrative coalition	
Ministry of Agriculture and Forestry Finland	<p>Ministry of Agriculture and Forestry Finland. (2022). <i>Government Report on the Climate Change Plan for the Land Use Sector</i> (Maa- ja metsätalousministeriön julkaisuja 2022:15). http://urn.fi/URN:ISBN:978-952-366-388-6</p> <p>Ministry of Agriculture and Forestry Finland. (2023). <i>The National Forest Strategy 2035</i> (Publications of the Ministry of Agriculture and Forestry 2023:22). Ministry of Agriculture and Forestry. http://urn.fi/URN:ISBN:978-952-366-740-2</p>
Valtioneuvosto	<p>Finnish Government. (2022). <i>The Finnish Bioeconomy Strategy. Sustainably towards higher value added</i> (Publications of the Finnish Government 2022:3). http://urn.fi/URN:ISBN:978-952-383-547-4</p>
Forestry Development Centre TAPIO	<p>Saaristo, L. (2020, October 14). Parempaa luonnonhoitoa talousmetsiin tarvitaan nyt. <i>Tapio</i>. https://tapio.fi/blogit/parempaa-luonnonhoitoa-talousmetsiin-tarvitaan-nyt-blogi-lauri-saaristo/</p> <p>Saaristo, L. (2023, November 29). Luonnonhoito metsätaloudessa – tulonmenetyksen, panostuksen kestävyys- vai terveinen tulevaisuuteen? <i>Tapio</i>. https://tapio.fi/blogit/luonnonhoito-metsataloudessa-tulonmenetyksen-panostus-kestavyyteen-vai-terveinen-tulevaisuuteen/</p> <p>Tapio. (2021, April 27). Matkailu ja virkistäytyminen lisääntyvät talousmetsissä. <i>Tapio</i>. https://tapio.fi/blogit/matkailu-ja-virkistaytyminen-lisaantyyvat-talousmetsissa/</p> <p>Tapio. (2022, June 30). Pidennetty kiertoaika—Uhka vai mahdollisuus? <i>Tapio</i>. https://tapio.fi/blogit/pidennetty-kiertoaika-uhka-vai-mahdollisuus/</p> <p>Tapio. (2023, February 15). Hyvästä paremmaksi – monimuotoisuutta tositaroituksella. <i>Tapio</i>. https://tapio.fi/blogit/hyvasta-paremmaksi-monimuotoisuutta-tositarkoituksella/</p> <p>Turunen, S. (2024, February 29). Nuoria askarruttaa metsätalouden kestävyys. <i>Tapio</i>. https://tapio.fi/blogit/nuoria-askarruttaa-metsatalouden-kestavyys/</p>
Natural Resources Institute Finland	<p>Lintunen, J., Kohl, J., Buchert, J., Asikainen, A., Jyske, T., Maunuksela, J., & Lehto, J. (2023). <i>Suomi elää metsästä myös 2035 – Keskusteluunavaus metsäsektorin arvonalisän kaksinkertaistamiseen</i> (Luonnonvara- ja biotalouden tutkimus 14/2023). Natural Resources Institute Finland. http://urn.fi/URN:ISBN:978-952-380-620-7</p>
Forestry coalition	
Finnish Forest Industries Federation (Metsäteollisuus ry)	<p>Finnish Forest Industries. (2020). <i>Vihreä ja vireä talous: Metsäteollisuuden ilmastotiekartta 2035</i>. https://global-uploads.webflow.com/5f44f62ce4d302179b465b3a/5fae9c3de86a240e06b76565_Metsa_Esite_Email.pdf</p>
UPM Kymmene-Oyj	<p>Bhushan, C. (2021, February 25). Yrityksiä tarvitaan ilmastotavoitteiden saavuttamisessa. <i>UPM</i>. https://www.upm.com/fi/artikkelit/Ilmasto/21/yrityksia-tarvitaan-ilmastotavoitteiden-saavuttamisessa/</p> <p>Kara, T. (2023, September 12). Luonnon monimuotoisuus mahdollistaa toimintamme. <i>UPM</i>. https://www.upm.com/fi/artikkelit/biodiversiteetti/23/luonnon-monimuotoisuus-mahdollistaa-toimintamme/</p> <p>Kuitupohjaiset pakkausmateriaalit osa ratkaisua. (2020, June 24). <i>UPM</i>.</p>

	<p>https://www.upm.com/fi/artikkelit/vastuullisuus/20/kuitupohjaiset-pakkausmateriaalit-osa-ratkaisua/</p> <p>Lehesvirta, K. (2020, June 5). Biodiversiteetti on biotalousvakuutus. <i>UPM</i>. https://www.upm.com/fi/artikkelit/vastuullisuus/20/biodiversiteetti-on-biotalousvakuutus/</p> <p>Mikkola, M. (2022, November 15). Mahdollistamme vastuullisemmat valinnat. <i>UPM</i>. https://www.upm.com/fi/artikkelit/beyond-fossils/22/mahdollistamme-vastuullisemmat-valinnat/</p> <p>Oksa, S. (2022, March 1). Käänteentekevä 2020-luku—Näkökulmia ja konkreettisia toimia metsien hyväksi. <i>UPM</i>. https://www.upm.com/fi/artikkelit/vastuullisuus/22/kaanteentekeva-2020-luku-nakokulmia-ja-konkreettisia-toimia-metsien-hyvaksi/</p> <p>Pietarinen, S. (2022, January 14). Metsät ovat Suomen tulevaisuus. <i>UPM</i>. https://www.upm.com/fi/artikkelit/beyond-fossils/22/metsat-ovat-suomen-tulevaisuus/</p> <p>Rider, D. (2023, April 27). UPM valmistautuu myymään sellua enemmän ja uusille markkinoille. <i>UPM</i>. https://www.upmpulp.com/fi/artikkelit/sellu/23/upm-valmistautuu-myymaan-sellua-enemman-ja-uusille-markkinoille/</p> <p>Räman, K. (2022, January 20). Vihreät joukkovelka-kirjalainat apuna ilmaston-muutoksen hillitsemisessä. <i>UPM</i>. https://www.upm.com/fi/artikkelit/beyond-fossils/22/vihreat-joukkovelkakirjalainat-apuna-ilmastonmuutoksen-hillitsemisessa/</p> <p>Sundman, S. (2020, June 4). Kestävän biotalouden kautta kohti vihreää kehitystä. <i>UPM</i>. https://www.upm.com/fi/artikkelit/kiertotalous/20/kestavan-biotalouden-kautta-kohti-vihreaa-kehitysta/</p> <p>Suuriniemi, S. (2023, March 27). Pidetään huolta metsistä. <i>UPM</i>. https://www.upm.com/fi/artikkelit/metsa/23/pidetaan-huolta-metsista/</p> <p>UPM. (2022). <i>UPM FOREST ACTION: Growing responsibility in climate, biodiversity, water, soil, and social contribution</i>. https://www.upm.com/siteassets/responsibility/forests/documents/upm_forest_action_report_091222.pdf</p> <p>Warsta, E. (2023a, January 25). Metsien kasvun vahvistaminen vai hakkuista luopuminen? <i>UPM</i>. https://www.upm.com/fi/artikkelit/metsa/23/metsien-kasvun-vahvistaminen-vai-hakkuista-luopuminen/#:~:text=Tavoitteena%20tulee%20olla%20metsien%20kasvun,heikommen%20seurannan%20ja%20kestävyyssstandardien%20maihin.</p> <p>Warsta, E. (2023b, September 18). Niin metsä vastaa kuin sinne huutaa – vai vastaako? <i>UPM</i>. https://www.upm.com/fi/artikkelit/metsa/23/niin-metsa-vastaa-kuin-sinne-huutaa-vai-vastaako/</p>
The Central Union of Agricultural Producers and Forest Owners	<p>The Central Union of Agricultural Producers and Forest Owners. (No date). <i>MTK:n Luonnon monimuotoisuusohjelma: Tavoitteena luonnon monimuotoisuuden turvaaminen ja edistäminen</i>. https://www.mtk.fi/documents/20143/173095/MTK_luonnonmonimuotoisuusohjelma_A5_1603_WEB.pdf/ce7a7d9e-a4f8-5c2f-f2d6-c1f44539bba6?t=1584343590289</p>
The Central Union of Agricultural Producers and Forest Owners, Finnish forest industries, Paper Workers' Union, Finnish Sawmills Association, Industrial Union	<p>Lehtomäki, P., Vanhala, P., Aalto, T., & Aalto, R. (2023, December 19). <i>Metsäsektorin kasvuohjelma – pitkäjänteistä ja johdonmukaista työtä kestävän kasvun puolesta</i>. https://www.mtk.fi/documents/d/mtk/metsasektorin_kasvuohjelma_fi_nal_logoilla_nimet</p>
Finnish forest industries, Sawmills Association	<p>Finnish forest industries and Sawmills Association. (2023). <i>Puuta jalostavan teollisuuden monimuotoisuus-tiekartta</i>. https://assets-global.website-files.com/5f44f62ce4d302179b465b3a/65423dc7c7654ce49227a74e_Puuta%20jalostavan%20teollisuuden%20monimuotoisuustiekartta%202023.pdf</p>

Environmental coalition	
Ministry of the Environment Finland	<p>Ministry of the Environment Finland. (2022). <i>Kansallinen luonnon monimuotoisuusstrategia 2035: LUONNOS 14.12.2022</i>. https://www.lausuntopalvelu.fi/FI/Proposal/DownloadProposalAttachment?proposalId=ef02b76f-1dc3-46f4-883a-3b3e2f526eff&attachmentId=19957</p>
WWF Finland	<p>WWF Finland. (n.d.). <i>Suomen metsät</i>. Retrieved April 28, 2024, from https://wwf.fi/elinymparistot/suomen-metsat/</p>
The Finnish Association for Nature Conservation	<p>The Finnish Association for Nature Conservation. (n.d.). <i>Metsätavoitteemme</i>. Retrieved April 28, 2024, from https://www.sll.fi/mita-me-teemme/metsat/metsatavoitteemme/</p> <p>The Finnish Association for Nature Conservation. (2020, September 24). <i>LAUSUNTO VUOTEEN 2030 ULOTTUVASTA BIO-DI-VER-SI-TEET-TI-STRA-TE-GIAS-TA – METSÄT</i>. https://www.sll.fi/2020/09/24/lausunto-vuoteen-2030-ulottuvasta-biodiversiteettistrategiasta-metsat/</p> <p>The Finnish Association for Nature Conservation. (2021, October 27). <i>EU:N METSÄSTRATEGIA</i>. https://www.sll.fi/2021/10/27/eun-metsastrategia/</p> <p>The Finnish Association for Nature Conservation. (2022a, November 2). <i>Luonnonsuojeluliiton kommentit metsäkadosta</i>. https://www.sll.fi/2022/02/11/luonnonsuojeluliiton-komentit-metsakadosta/</p> <p>The Finnish Association for Nature Conservation. (2022b, November 14). <i>LAUSUNTO MET-SÄ-STRA-TE-GIAS-TA</i>. https://www.sll.fi/2022/11/14/lausunto-metsastrategiasta/</p> <p>The Finnish Association for Nature Conservation. (2024, February 16). <i>Vanhoiden ja luonnontilaisten metsien suojelun aika on nyt</i>. https://www.sll.fi/2024/02/16/vanhoiden-ja-luonnontilaisten-metsien-suojelun-aika-on-nyt/</p>
Greenpeace Finland	<p>Aromaa, J. (2021, May 20). <i>Miksi luonnon kanssa ei voi neuvotella?</i> <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/miksi-luonnon-kanssa-ei-voi-neuvotella/</p> <p>Aromaa, J. (2022, January 11). <i>Miksi Suomi änkyroi vastoin omaa etuaan luontokadon pysäyttämässä?</i> <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/miksi-suomi-ankyroi-vastoin-omaa-etuaan-luontokadon-pysayttamisessa/</p> <p>Aromaa, J. (2023a, January 8). <i>Metsäyhtiöiden tulokset laskussa – pelastuvatko metsä ja ilmasto?</i> <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/metsayhtioiden-tulokset-laskussa-pelastuvatko-metsa-ja-ilmasto/</p> <p>Aromaa, J. (2023b, March 30). <i>Kenen hiilinielut pelastavat Euroopan ilmastotoimet?</i> <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/ilmastonmuutos/kenen-hiilinielut-pelastavat-euroopan/</p> <p>Aromaa, J. (2023c, November 13). <i>Luonnonmetsän määrittely on luonnontiedettä – se ei saa olla metsäyhtiöiden edunvalvontaa</i>. <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/luonnonmetsan-maarittely-on-luonnontiedetta-se-ei-saa-olla-metsayhtioiden-edunvalvontaa/</p> <p>Greenpeace Finland. (n.d.-a). <i>Luontovaalit 2023</i>. Retrieved April 28, 2024, from https://www.greenpeace.org/static/planet4-finland-stateless/2023/02/5fe2e7f3-greenpeacen-vaalitavoitteet.pdf</p> <p>Greenpeace Finland. (n.d.-b). <i>Metsäyhtiöt vastuuseen! Suomen luonto ei ole kertakäyttötuote</i>. Retrieved April 28, 2024, from https://www.greenpeace.org/finland/toimi/metsayhtiot-vastuuseen/</p> <p>Greenpeace Finland. (2021, September 6). <i>Viisi myyttiä Suomen metsistä – kumottu</i>. https://www.greenpeace.org/finland/blogit/metsat/viisi-</p>

	<p>myyttia-suomen-metsista-kumottu/ Greenpeace Finland. (2022a, June 10). <i>Luontokato – mitä se on ja miksi metsät ovat sen torjunnan ytimessä?</i> https://www.greenpeace.org/finland/blogit/metsat/luontokato-mita-se-on-ja-miksi-metsat-ovat-sen-torjunnan-ytimessa/</p> <p>Greenpeace Finland. (2022b, July 6). <i>Metsien hiilinielu romahti – mitä väliä?</i> https://www.greenpeace.org/finland/blogit/metsat/metsien-hiilinielut-romahtivat-mita-valia/#:~:text=Metsien%20hiilinielu%20poistaa%20hiiltä%20ilmakehästä,pienennetään%20hiilinielua%2C%20pienennetään%20hiilivara%20kasvu</p> <p>Greenpeace Finland. (2022c, August 11). <i>EU:n ennallistamisasetus on Suomen luonnon – ja suomalaisten etu.</i> https://www.greenpeace.org/finland/blogit/metsat/eun-ennallistamisasetus-on-suomen-luonnon-ja-suomalaisten-etu/</p> <p>Greenpeace Finland. (2022d, September 14). <i>Valtaosa suomalaisista haluaa lisää metsien suojelua ja vähemmän hakkuita – tule mukaan metsämarssille.</i> https://www.greenpeace.org/finland/blogit/metsat/valtaosa-suomalaisista-haluaa-lisaa-metsien-suojelua-ja-vahemman-hakkuita-tule-mukaan-metsamarssille/</p> <p>Greenpeace Finland. (2022e, November 28). <i>Suomen ensimmäinen ilmasto-oikeudenkäynti – Mistä siinä on kyse?</i> https://www.greenpeace.org/finland/blogit/ilmastonmuutos/suomen-ensimmainen-ilmasto-oikeudenkaynti-mista-siina-on-kyse/</p> <p>Greenpeace Finland. (2023a, January 31). <i>Viisi syytä ryhtyä metsäaktivistiksi.</i> https://www.greenpeace.org/finland/blogit/metsat/viisi-syyta-ryhtya-metsaaktivistiksi/</p> <p>Greenpeace Finland. (2023b, September 19). <i>Rokansaaren hakkuut ovat nyt jäissä – seuraavaksi metsäyhtiöiden on kannettava vastuunsa luontokadosta.</i> https://www.greenpeace.org/finland/blogit/metsat/rokansaaren-hakkuut-ovat-nyt-jaissa-seuraavaksi-metsayhtioiden-on-kannettava-vastuunsa-luontokadosta/</p> <p>Greenpeace Finland. (2023c, October 25). <i>Näin Metsä Group perustelee luontokatoa kiihdyttävää toimintaansa – vastasimme yhtiön väitteisiin.</i> https://www.greenpeace.org/finland/blogit/metsat/nain-metsa-group-perustelee-luontokatoa-kiihdyttavaa-toimintaansa-vastasimme-yhtion-vaitteisiin/</p> <p>Greenpeace Finland. (2023d, October 31). <i>Miltä Kemin sellutehtaalla näytti 25.10.? Ja miten sen pöllön kävi? Katso kuvat!</i> https://www.greenpeace.org/finland/blogit/metsat/milta-kemin-sellutehtaalla-naytti-25-10-ja-miten-sen-pollon-kavi-katso-kuvat/</p> <p>Greenpeace Finland. (2023e, November 27). <i>Ärsyttävätkö törkyhakkuut? Tiivis ohje kansalaispalautteen antamiseen.</i> https://www.greenpeace.org/finland/blogit/metsat/arsyttavatko-torkyhakkuut-tiivis-ohje-kansalaispalautteen-antamiseen/</p> <p>Greenpeace Finland. (2024a, January 25). <i>Suomeen luonnonmetsähälytys.</i> https://www.greenpeace.org/finland/blogit/metsat/suomeen-luonnonmetsahalytys/</p> <p>Greenpeace Finland. (2024b, January 26). <i>Miksi luonnonmetsien tilanne on juuri nyt hälyttävä? Kysymyksiä ja vastauksia.</i> https://www.greenpeace.org/finland/blogit/metsat/miksi-luonnonmetsien-tilanne-on-juuri-nyt-halyttava-kysymyksia-ja-vastauksia/</p> <p>Greenpeace Finland. (2024c, October 21). <i>Kolme tärkeää pointtia luonnonmetsistä: “On hirveän suuri asia, mitä juuri tälle ryhmälle metsiä tehdään.”</i> https://www.greenpeace.org/finland/blogit/metsat/kolme-tarkeaa-pointtia-luonnonmetsista-on-hirvean-suuri-asia-mita-juuri-talle-ryhmalle-metsia-tehdaan/</p> <p>Janhunen, J. (2023, May 15). <i>Uudistuuko Suomi vai haraako se tutkittua tietoa vastaan? – Puolusta kanssamme Suomen luontoa ja ilmastotoimia.</i> <i>Greenpeace Finland.</i></p>
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	<p>https://www.greenpeace.org/finland/blogit/metsat/uudistuuko-suomi-vai-haraako-se-tutkittua-tietoa-vastaan-puolusta-kanssamme-suomen-luontoa-ja-ilmastotoimia/</p> <p>Kähkönen, N. (2023, March 5). Syvennyin suomalaiseen metsäkeskusteluun – nämä kolme asiaa yllättivät. <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/syvennyin-suomalaiseen-metsakeskusteluun-nama-kolme-asiaa-yllattivat/</p> <p>Käyhkö, O. (2023a, September 26). Onko sellu ratkaisu fossiilitaloudesta irtautumiseen? <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/onko-sellu-ratkaisu-fossiilitaloudesta-irtautumiseen/</p> <p>Käyhkö, O. (2023b, December 3). Tehometsätalous on suurin luontokatoa kiihdyttävä tekijä Suomessa. <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/tehometsatalous-on-suurin-luontokatoa-kiihdyttava-tekija-suomessa/</p> <p>Käyhkö, O. (2024, February 28). Näin metsäyhtiöt perustelevat puun ostamista luonnonmetsistä. <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/nain-metsayhtiot-perustelevat-puun-ostamista-luonnonmetsista/</p> <p>Kosonen, K. (2021, January 4). Ikimetsää palaa Inarissa – mutta miksi? <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/ikimetsa-palaa-inarissa-mutta-miksi/#:~:text=Ikimetsien%20suojelun%20on%20otettava%20vakavasti.ja%20varmistaa%20suojelun%20riittäv%20resurssointi.</p> <p>Sipiläinen, T. (2023, October 24). Suomalainen metsäteollisuus voi olla markkinointinsa veroinen – mutta ensin pitäisi häätää eräs elefanti olohuoneesta. <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/suomalainen-metsateollisuus-voi-olla-markkinointinsa-veroinen-mutta-ensin-pitaisi-haataa-eras-elefanti-olohuoneesta/#:~:text=Metsät,Suomalainen%20metsäteollisuus%20voi%20olla%20markkinointinsa%20veroinen%20-%20mutta.pitaisi%20häätää%20eräs%20elefanti%20olohuoneesta&text=Minusta%20vaikuttaa%20C%20että%20Suomessa%20ei.jonka%20metsäyhtiöt%20ovat%20itselleen%20aiheuttaneet.</p> <p>Sipiläinen, T. (2024, December 2). Greenpeacen maajohtaja: Metsähallitus heittää bussin alle sekä metsät että metsäyhtiöt. <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/greenpeacen-maajohtaja-metsahallitus-heittaa-bussin-alle-seka-metsat-etta-metsayhtiot/</p> <p>Tiainen, O. (2023, March 23). Luontomarssi vaati tekoja – eduskuntapuolueet lupasivat suojella luonnonmetsät. https://www.greenpeace.org/finland/blogit/metsat/puolueiden-erot-esiin-luontomarssilla-eduskuntapuolueet-lupasivat-suojella-luonnonmetsat/</p> <p>Vaara, M. (2023, August 15). Kolme metsäteollisuuden myyttiä – kumottu. <i>Greenpeace Finland</i>. https://www.greenpeace.org/finland/blogit/metsat/kolme-metsateollisuuden-myyttia-kumottu/</p>
Extinction Rebellion Finland and Forest Movement	Extinction Rebellion Finland. (2023, November 13). <i>Metsäteollisuuden oikeudenmukainen siirtymä-paneeli</i> . https://www.youtube.com/watch?v=aYBYeKr7ZI
Outside of coalitions	
Citizen Council of forests in	Citizen Council of forests in Lapland. (2022). <i>LAPIN METSÄRAATI: Metsäraadin kannanotto Lapin metsien ilmastoviisaaseen ja oikeudenmukaiseen käyttöön</i> . https://sites.utu.fi/factor/wp-

Lapland	content/uploads/sites/948/2022/11/Lapin-metsäraati-julkilausuma-saavutettava.pdf
European Comission	European Comission. (2021). <i>Communication: New EU Forest Strategy for 2030</i> . https://commission.europa.eu/document/cf3294e1-8358-4c93-8de4-3e1503b95201_fi