



SUOMEN  
ILMASTOPANEELI  
The Finnish Climate  
Change Panel

---

## EVALUATION OF JUSTICE IN CLIMATE POLICY

Paula Kivimaa, Milja Heikkinen, Suvi Huttunen, Jouni J. K. Jaakkola, Sirkku Juhola,  
Suvi Juntunen, Minna Kaljonen, Jukka Käyhkö, Marianne Leino, Tikli Loivaranta, Piia  
Lundberg, Anu Lähteenmäki-Uutela, Klemetti Näkkäljärvi, Marja Helena Sivonen,  
Annukka Vainio

**The Finnish Climate Change Panel**  
**Report 3/2023**

© Suomen ilmastopaneeli



This work is licensed under a [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license.

The Finnish Climate Change Panel, Report 3/2023

### **Evaluation of justice in climate policy**

Authors:

Paula Kivimaa, Milja Heikkinen, Suvi Huttunen, Jouni J. K. Jaakkola, Sirkku Juhola, Suvi Juntunen, Minna Kaljonen, Jukka Käyhkö, Marianne Leino, Tikli Loivaranta, Piia Lundberg, Anu Lähteenmäki-Uutela, Klemetti Näkkäljärvi, Marja Helena Sivonen, Annukka Vainio

Translation:

Stella Thompson

ISSN: 2737-0666

ISBN: 978-952-7457-21-4

DOI: <https://doi.org/10.31885/9789527457214>

Please cite as:

Kivimaa, P., Heikkinen, M., Huttunen, S., Jaakkola, J. J. K., Juhola, S., Juntunen, S., Kaljonen, M., Käyhkö, J., Leino, M., Loivaranta T., Lundberg, P., Lähteenmäki-Uutela, A., Näkkäljärvi, K., Sivonen, M. H., Vainio, A. 2023. Evaluation of justice in climate policy. The Finnish Climate Change Panel, Report 3/2023.

The Finnish Climate Change Panel promotes climate dialogue between science and policymaking. The Panel provides climate policymaking recommendations for the Finnish Government and reinforces interdisciplinarity in the climate sciences. Reports and statements prepared by the Panel are compiled on scientific grounds.

[info@ilmastopaneeli.fi](mailto:info@ilmastopaneeli.fi)

[www.ilmastopaneeli.fi/en/](http://www.ilmastopaneeli.fi/en/)

[@Ilmastopaneeli1](https://twitter.com/Ilmastopaneeli1)

## INDEX

<b>INDEX</b> .....	<b>III</b>
<b>POLICY RECOMMENDATIONS AND KEY MESSAGES</b> .....	<b>IV</b>
<b>SUMMARY</b> .....	<b>VI</b>
<b>TIIVISTELMÄ</b> .....	<b>VII</b>
<b>SAMMANDRAG</b> .....	<b>VIII</b>
<b>ČOAHKKÁIGEASSU</b> .....	<b>IX</b>
<b>ČUÁKÁNKIÄSU</b> .....	<b>X</b>
<b>VUÄNÕS</b> .....	<b>XI</b>
<b>1. INTRODUCTION</b> .....	<b>1</b>
1.1. Stakeholder workshops, citizen survey, and other background work .....	1
<b>2. STARTING POINTS FOR EVALUATING CLIMATE POLICY JUSTICE</b> .....	<b>3</b>
2.1. Climate policy justice impact evaluations versus traditional impact assessments .....	3
2.2. Fundamental and human rights as starting points for evaluating climate policy justice .....	4
2.3. Dimensions of justice .....	7
<b>3. EVALUATION QUESTIONS FOR CLIMATE POLICY JUSTICE</b> .....	<b>8</b>
3.1. Distributive justice .....	10
3.2. Recognition justice .....	18
3.3. Procedural justice .....	24
<b>4. REFLECTION ON CLIMATE POLICY CONTRADICTIONS, AND OTHER CONSIDERATIONS</b> .....	<b>30</b>
<b>5. SUMMARY AND CONCLUSIONS</b> .....	<b>32</b>
<b>APPENDICES</b> .....	<b>34</b>
<b>REFERENCES</b> .....	<b>34</b>

## POLICY RECOMMENDATIONS AND KEY MESSAGES

### Climate policy justice evaluation must be developed

- According to Finland's new Climate Act, impacts on justice must be evaluated when planning and monitoring climate policy. This requires further developing the evaluation of justice impacts.
- Climate policy justice evaluations improve knowledge-based decision-making and create opportunities for conflict solving.
- Climate policy can help mend current injustices, for example, by decreasing the health and environmental disadvantages caused by emissions. However, the justice impacts of climate policy must be evaluated comprehensively, so as not to produce new significant injustices without compensating or reducing them.
- Climate policy alone cannot solve all questions of justice, some of which are caused by other factors than climate policy. Examining individual climate policy instruments does not provide a complete picture of justice. Evaluations of justice should therefore focus on examining the impacts of policy mixes. For example, disadvantages caused by restricting fossil fuel-based economies can be compensated or mitigated by supporting new economies and through education policies.
- Evaluating climate policy justice requires examining its impacts at various spatial scales from local to global. Temporal scales should also be considered.
- Both sector-level and cross-sector analyses are required. For example, the justice impacts of policy actions and policy mixes related to food, transport, and energy are connected to each other in people's daily lives. Evaluating wider systemic effects on the environment is also important, such as assessing impacts on biodiversity.
- Justice impacts must be monitored, and they must be communicated about in an accessible manner. Annual Climate Reports and annual municipal reports offer tools for this.

### Evaluations of climate policy justice must be based on fundamental and human rights

- The starting point for assessing climate policy justice is that climate policy is needed for ensuring global and intergenerational justice. Failure in mitigating and adapting to climate change creates injustices.
- Fundamental and human rights help in conceptualizing the minimum level of justice. However, the justice impacts of Finnish climate policy must be evaluated at a broader scale than the minimum level derived from fundamental and human rights.
- Securing the rights of indigenous peoples supports the justice and knowledge base of climate policy. Climate policy justice evaluations in Finland should assess and monitor the impacts that policy actions have on Saami culture and on how their fundamental and human rights are realized.

### Using three dimensions of justice to help evaluate climate policy

- Evaluating climate policy justice must be based on scientific and credible knowledge and on fundamental and human rights. It should utilize the three dimensions of justice: distributive, recognition, and procedural justice. Evaluation questions based on these dimensions and raised by this report can be utilized for developing the justice evaluation process of climate policy.
- When evaluating distributive justice, the distribution of benefits and disadvantages in society should be accounted for better than before. Attention must be paid to how, for example, health and environmental effects are distributed within society in addition to economic effects. Compensatory mechanisms should be considered — but in a manner that upholds the steering effect of climate policy.
- The relevance of various sociocultural backgrounds and vulnerabilities to climate policy justice must be recognized and accounted for better than previously. This requires utilizing the evaluation questions of recognition justice and examining how the viewpoints of future generations are considered in climate change policy plans.

- Procedural justice must be advanced by assessing the actual constraints affecting climate policy participation and how these constraints could be dismantled. Procedural justice should be assessed already when preparing to formulate climate change policy plans. Particularly the voices of the Saami, children, and youths must be heard in decision-making.
- In connection with recognition and procedural justice, climate policy justice evaluations must also examine how accessible communication is for groups from various sociocultural backgrounds. Well-targeted communication improves people's capabilities for change.

### **Climate Policy Justice — A project by the Finnish Climate Change Panel**

The Climate Policy Justice project (2021–2023) aims to increase our understanding of what justice refers to in connection with climate policy. Justice is construed through fundamental and human rights and through the dimensions of justice derived from research literature. These dimensions are distributive, recognition, and procedural justice. Distributive justice examines how the benefits and disadvantages created by climate policy measures are distributed within society. The project also examines questions related to restorative justice, i.e., a sub-theme of distributive justice that considers the compensation or mitigation of realized disadvantages. Recognition justice focuses on how various societal positions and sociocultural factors affect the way in which climate policy consequences fall upon various groups. Procedural justice is used to consider the fairness of various political decision-making stages.

- A report on climate policy justice evaluation (Kivimaa et al. 2023) presents evaluation questions that can be utilized in developing justice evaluations of climate policy. A series of stakeholder workshops were carried out to support the report compilation. The report appendix [in Finnish] provides more information related to these workshops.
- Lund (2023, in Finnish) examines the regional impacts of an energy transition in Finland. Energy and economic impacts are used as the viewpoint of this briefing paper, along with how potential regional economic injustices can be mended.
- A total of 16 just adaptation indicators were formed in a work package related to adaptation. These indicators were used to analyse the adaptation plans of various nations and cities. The analysis results can be found in Juhola et al. (2022). Additional information in Finnish can also be found from the Panel's blog.
- A citizen survey was used to investigate citizen opinions concerning Finnish climate policy justice. The data were gathered through an electronic survey in June 2022 from three areas: Helsinki, Northern Ostrobothnia, and Southwest Finland. Survey responses were analysed using quantitative, qualitative, and geographic information methods. Results are presented in Vainio et al. (2023, in Finnish).
- A work package prepared by the Center for Environmental and Respiratory Health Research (CERH) examines specific questions related to climate change adaptation and mitigation policies concerning the Saami. Read more from the Panel's blog. A briefing paper on this work package will be published later in the spring of 2023.

Project reports and other publications can be found on [the Finnish Climate Change Panel's website](#).

## SUMMARY

Climate policy justice aspects have become central to the societal debate regarding climate policy. Securing climate policy justice has also been identified as an objective in Finland's new Climate Act. The justice impacts of climate policy measures must therefore be evaluated when formulating climate change policy plans and when monitoring their implementation. The Finnish Climate Change Panel's Climate Policy Justice project aims to increase awareness regarding justice in climate policy. This report examines how climate policy justice can be evaluated. To develop this evaluation work, the report presents a selection of questions for evaluating justice impacts.

Fundamental and human rights present a basis on which climate policy justice evaluation is built upon. The rights to life and health of current and future generations require the mitigation of and adaptation to climate change. The starting point of this report is that justice cannot occur without climate policy. At best, climate policy can be used to mend the injustices incurred by fossil fuel economies. Climate policy justice evaluations are needed to ensure that climate policy does not create new injustices, especially without compensating them in one way or another. However, climate policy alone cannot solve all questions of justice, and broader policy mixes must therefore be considered.

The report structures climate policy justice through three justice dimensions derived from the research literature: distributive, recognition, procedural justice. Distributive justice examines how the benefits and disadvantages of climate policy measures are distributed. Questions of restorative justice are also examined as a sub-theme of distributive justice. This sub-theme relates to the compensation of realized disadvantages or to the mitigation of detrimental effects. The ways in which distributive justice impacts influence various spatial scales from local to global requires scrutiny. Recognition justice focuses on how the various societal positions of individuals and sociocultural factors affect the spread of climate policy consequences. Procedural justice is used to examine the fairness of various policymaking phases. Considering different factors that increase vulnerability and groups that are central specifically to climate policy, such as future generations and the Saami, are important aspects of recognition and procedural justice.

Based on the abovementioned justice dimensions, this report presents a selection of evaluation questions that can be used to develop the evaluation of climate policy justice impacts. These evaluation questions offer the opportunity to comprehensively construe the justice impacts of Finnish climate policy. However, the justice dimensions are overlapping, and separating them from one another is not always pertinent.

In conclusion, we note that especially recognition justice challenges those preparing and evaluating policy to deliberate on justice impacts more deeply. Existing power positions and achieved privileges, the role of minorities, and, for example, the rights of unborn generations and the Saami are all factors requiring attention. Recognition justice offers the opportunity to recognize, for instance, those phases of procedures that require improvements, for example to enable the participation of the abovementioned groups. Developing justice evaluations is an important part of constructive conflict resolution, which will inevitably be needed in the future. Cross-disciplinary research is important for advancing justice. The justice impacts of climate policy must be monitored and they should be communicated in an open and accessible manner.

## TIIVISTELMÄ

Ilmastopolitiikan oikeudenmukaisuuskysymyksistä on tullut keskeinen osa ilmastopolitiikasta käytävää yhteiskunnallista keskustelua. Ilmastotoimien oikeudenmukaisuuden varmistaminen on kirjattu myös yhdeksi uuden ilmastolain tavoitteista, minkä seurauksena ilmastotoimien oikeudenmukaisuusvaikutuksia tulee jatkossa arvioida osana ilmastosuunnitelmien laadintaa ja toimeenpanon seurantaa. Ilmastopaneelin ilmastopolitiikan oikeudenmukaisuus –hankkeessa on pyritty lisäämään ymmärrystä siitä, mitä tarkoitetaan oikeudenmukaisella ilmastopolitiikalla. Tässä raportissa tarkastellaan lähemmin, miten ilmastopolitiikan oikeudenmukaisuutta voidaan arvioida. Arviointityön kehittämiseksi raportissa esitellään joukko oikeudenmukaisuusvaikutusten arviointikysymyksiä.

Perus- ja ihmisoikeudet tarjoavat pohjan, jolle ilmastopolitiikan oikeudenmukaisuuden arviointi rakentuu. Nykyisten ja tulevien sukupolvien oikeus elämään ja terveyteen edellyttää, että ilmastomuutosta hillitään ja ilmastomuutokseen sopeutumista edistetään. Raportissa lähtökohtana on, että ilman ilmastopolitiikkaa ei voi olla oikeudenmukaisuutta. Parhaimmillaan ilmastopolitiikalla voidaan korjata fossiilitalouden epäoikeudenmukaisuuksia. Ilmastotoimien oikeudenmukaisuuden arviointia tarvitaan, ettei ilmastopolitiikalla tulla aikaansaaneeksi uusia epäoikeudenmukaisuuksia, varsinkaan ilman, että niitä hyvitetäisiin tavalla tai toisella. Ilmastopolitiikka yksin ei kuitenkaan pysty ratkaisemaan kaikkia oikeudenmukaisuuskysymyksiä, ja siksi huomioon tulee ottaa laajemmat politiikkakokonaisuudet.

Raportissa jäsenellään ilmastopolitiikan oikeudenmukaisuutta tutkimuskirjallisuudesta johdetun kolmen eri oikeudenmukaisuuden ulottuvuuden kautta; jako-oikeudenmukaisuus, tunnustava oikeudenmukaisuus ja menettelytapojen oikeudenmukaisuus. Jako-oikeudenmukaisuus tarkastelee ilmastotoimista aiheutuvien hyötyjen ja haittojen jakautumista. Osana jako-oikeudenmukaisuutta tarkastellaan myös hyvittävän oikeudenmukaisuuden kysymyksiä eli toteutuneiden haittojen kompensointia tai haittavaikutusten lievittämistä. Jako-oikeudenmukaisuudessa vaikutusten kohdentuminen eri aluetasolle, paikallisesta globaaliin, vaatii tarkastelua. Tunnustava oikeudenmukaisuus kohdistaa huomionsa siihen, miten ihmisten erilaiset asemat ja esimerkiksi sosiokulttuuriset tekijät vaikuttavat ilmastopolitiikan seurausten kohdentumiseen. Menettelytapojen oikeudenmukaisuuden avulla tarkastellaan sitä, miten reiluja erilaiset poliittisen päätöksenteon vaiheet ovat. Erilaisten haavoittuvuutta lisäävien tekijöiden sekä erityisesti ilmastopolitiikassa keskeisten ryhmien, kuten tulevien sukupolvien ja saamelaisten, huomioiminen on tärkeää osana tunnustavaa ja menettelytapojen oikeudenmukaisuutta.

Oikeudenmukaisuusulottuvuuksien tarkasteluun pohjaten raportissa esitetään joukko arviointikysymyksiä, joita voidaan hyödyntää ilmastopolitiikan oikeudenmukaisuusvaikutusten arvioinnin kehittämiseen. Arviointikysymykset tarjoavat mahdollisuuden jäsentää ilmastopolitiikan oikeudenmukaisuusvaikutuksia entistä kattavammin. Eri oikeudenmukaisuuden ulottuvuudet kuitenkin limittyvät, eikä niitä aina ole tarkoituksenmukaistakaan erotella toisistaan.

Johtopäätöksinä todetaan, että eritoten tunnustava oikeudenmukaisuus haastaa politiikan valmistelijoita ja arvioijia pohtimaan oikeudenmukaisuusvaikutuksia entistä syvällisemmin. Olemassa olevat valta-asemat ja saavutetut edut, vähemmistöjen rooli, sekä muun muassa syntymättömien sukupolvien ja saamelaisten oikeudet ovat kaikki huomiota vaativia tekijöitä. Tunnustavan oikeudenmukaisuuden kautta voidaan hahmottaa esimerkiksi menettelytavoista sellaisia vaiheita, joissa on parannettavaa, esimerkiksi juuri edellä mainittujen ryhmien osallistumisen mahdollistamiseksi. Oikeudenmukaisuusarvioinnin kehittäminen on tärkeä osa rakentavaa ristiriitojen ratkomista, jota jatkossakin joudutaan väistämättä tekemään. Tieteenalarajat ylittävä tutkimus on tärkeää oikeudenmukaisuuden edistämiseksi. Ilmastopolitiikan oikeudenmukaisuusvaikutuksia tulee seurata, ja niistä tulee viestiä avoimesti ja saavutettavasti.

## SAMMANDRAG

Diskussionen om rättvis klimatpolitik har blivit en central del av den klimatpolitiska samhällsdebatten. Ett av målen i den nya klimatlagen är att säkerställa att klimatåtgärderna är rättvisa. I fortsättningen bör klimatåtgärdernas effekter därmed också utvärderas ur rättvisehänseende när klimatplaner utarbetas och när deras verkställande följs upp. Klimatpanelens projekt Rättvisa i klimatpolitiken ska öka förståelsen för vad som avses med rättvis klimatpolitik. Den här rapporten fokuserar främst på hur man kan analysera rättvisa i klimatpolitiken. För att utveckla en sådan analys lägger rapporten fram olika utvärderingsfrågor om rättvisa i klimatpolitiken.

De grundläggande och de mänskliga rättigheterna utgör en grund för analysen. Nuvarande och kommande generationers rätt till liv och hälsa förutsätter att klimatförändringen begränsas och att man främjar klimatanpassning. Rapporten utgår från att klimatpolitik är en förutsättning för klimaträttvisa. I bästa fall kan klimatpolitiken också rätta till befintliga orättvisor i den fossila ekonomin. Analysen av rättvisa klimatåtgärder behövs för att klimatpolitiken inte ska ge upphov till nya betydande orättvisor, särskilt sådana där de mest drabbade inte skulle kompenseras på ett eller annat sätt. Alla frågor som gäller rättvisa kan dock inte enbart lösas genom klimatpolitik, och därför bör man uppmärksamma bredare politiska helheter som överskrider gränserna mellan olika sektorer och förvaltningsområden.

Rapportens klimatpolitiska utvärderingsfrågor har formulerats utifrån tre olika former av rättvisa från forskningslitteraturen: distributiv rättvisa, erkännande rättvisa och procedurell rättvisa. Distributiv rättvisa handlar om hur klimatåtgärdernas nyttor och bördor fördelas. Även kompensatorisk rättvisa ingår i distributiv rättvisa. Kompensatorisk rättvisa handlar om hur skador kompenseras eller hur skadornas konsekvenser mildras. En granskning av distributiv rättvisa kräver också att man undersöker hur effekterna fördelar sig på olika områden, från lokal till global nivå. Erkännande rättvisa handlar om hur olika samhällspositioner och till exempel sociokulturella faktorer påverkar fördelningen av klimatpolitikens effekter. Procedurell rättvisa handlar om hur rättvisa och tillgängliga de olika stegen i en politisk beslutsprocess är. En granskning av erkännande och procedurell rättvisa ska lyfta fram olika faktorer som ökar sårbarheten och även identifiera sådana grupper som särskilt bör beaktas i klimatpolitiken, såsom kommande generationer och samer.

De olika formerna av rättvisa fungerar som utgångspunkt för utvärderingsfrågorna i rapporten. Frågorna kan utnyttjas när man utvecklar analysen av rättvisa i klimatpolitiken. De olika formerna av rättvisa ger möjlighet att formulera frågorna på ett mer övergripande sätt. Traditionellt har analysen av rättvisaspekterna utgått från fördelningen mellan nyttor och bördor, medan projektet Rättvisa i klimatpolitiken lyfter fram behovet av att undersöka rättviseperspektivet på ett mer övergripande sätt. De olika formerna av rättvisa ger verktyg för att klarlägga rättviseperspektivet, men de olika formerna och utvärderingsfrågorna kan också överlappa varandra och därför är det inte alltid ändamålsenligt att skilja dem åt.

Slutsatsen är att i synnerhet principen om erkännande rättvisa utmanar den politiska beredningen och bedömningen till djupare reflektion kring klimaträttvisa. Befintliga maktpositioner och förmåner, minoriteternas roll, samt kommande generationers och samernas rättigheter är alla sådana faktorer som måste uppmärksammas. Principen om erkännande rättvisa kan till exempel användas för att identifiera sådana förfaranden som måste förbättras, till exempel för att göra det möjligt för ovannämnda grupper att medverka. För att målkonflikter även i fortsättningen ska kunna lösas på ett konstruktivt sätt är det viktigt att utveckla analysen av rättvisa i klimatpolitiken och att kunna motivera varför en klimatåtgärd är rättvis. Tvärvetenskaplig forskning har en viktig, främjande roll för klimaträttvisa. Analysen av rättvisa i klimatpolitiken bör också stödjas genom uppföljning och rapportering på ett öppet och tillgängligt sätt.



## ČOAHKKÁIGEASSU

Dálkkádatpolitiikka vuoiggalašvuoda gažaldagain lea šaddan servodatlaš ságastallama guovddášoassi, mii guoská dálkkádatpolitiikka. Dálkkádatdoaimmaid vuoiggalašvuoda sihkkarastin lea maid girjejuvnon oktan ođđa dálkkádatlága ulbmilin, man čuovvumuššan dálkkádatdoaimmaid vuoiggalašvuoda váikkuhusat galget dás duohko árvvoštallojuvvot dálkkádatplánaid ráhkadeami ja ollahuhttima čuovvuma oassin. Dálkkádatpolitiikka vuoiggalašvuodha -prošeavttas lea viggojuvnon lasihit ipmárdus das, mii dárkkuhuvvo vuoiggalaš dálkkádatpolitiikkain. Dán raporttas geahčaduvvo lagabut, mot dálkkádatpolitiikka vuoiggalašvuodha sáhtta árvvoštallojuvvot. Árvvoštallanbarggu ovdánahttima várás raporttas ovdanbuktojuvvojit vuoiggalašvuoda váikkuhusaid árvvoštallangažaldagat.

Vuođđo- ja olmmošrievttit fáallet vuođu, masa dálkkádatpolitiikka vuoiggalašvuoda árvvoštallan huksejuvvo. Dáláš ja boahhte buolvvaid riekti eallimii ja dearvašvuhtii gáibida, ahte dálkkádatrievdan gohccojuvvo ja dálkkádatrievdamii vuogáiduvvan ovddiduvvo. Raporttas vuolggasadjin lea, ahte dálkkádatpolitiikka haga ii sáhte leat vuoiggalašvuodha. Buoremus muttus dálkkádatpolitiikkain sáhttet divvojuvvot fossiilaekonomiija eahpevuoiggalašvuodhat. Dálkkádatdoaimmaid vuoiggalašvuoda árvvoštallan dárbbášuvvo, vai dálkkádatpolitiikkain eai dagahuvvo ođđa eahpevuoiggalašvuodhat, eandalit almmá dan haga, ahte dat buhtejuvvojit vugiin dehe nuppiin. Dálkkádatpolitiikka akto ii dattetge bastte čoavdit visot vuoiggalašvuoda gažaldagaid, ja danin galget váldojuvvot vuhtii viiddit politiikkaollisvuodhat.

Raporttas lađastallojuvvo dálkkádatpolitiikka vuoiggalašvuodha dutkangirjjálašvuodas boahán golmma sierra vuoiggalašvuoda dimenšuvnna bakte, mat leat juohkinvuoiggalašvuodha, dovddasteaddji vuoiggalašvuodha ja meannudanvugiid vuoiggalašvuodha. Juohkinvuoiggalašvuodha geahčada ávkkiid ja áruid juohkáseami, mat čuožžilit dálkkádatdoaimmain. Juohkinvuoiggalašvuoda oassin geahčaduvvojit maid buhtejeaddji vuoiggalašvuoda gažaldagat dehege ollahuvvan áruid kompenseren dehe árovváikkuhusaid geahpideami. Juohkinvuoiggalašvuoda váikkuhusaid čuohtin sierra guovlludásiide, báikkálaččas globálie, gáibida geahčadeami. Dovddasteaddji vuoiggalašvuodha čuoziha fuomášumis dasa, mot olbmuid sierralágán sajádagat ja ovdamearkka dihte sosiokultuvrralaš dagaldagat váikkuhit dálkkádatpolitiikka čuovvumušaid čuohtimii. Meannudanvugiid vuoiggalašvuoda mielde geahčaduvvo dat, man árvosat sierralágán politiikkalaš mearrádusdahkama muttut leat. Sierralágán dagaldagaid, mat lasihit raššivuođaid, sihke earenoamážit dálkkádatpolitiikkas guovddášjoavkkuid, dego boahhte buolvvaid ja sápmelaččaid, vuhtii váldin lea dovddasteaddji ja meannudanvugiid vuoiggalašvuoda dehálaš oassi.

Vuoiggalašvuoda dimenšuvnnaid geahčadeapmái vuođđudettiin raporttas ovdanbuktojuvvojit árvvoštallangažaldagat, mat sáhttet adnojuvvot ávkin dálkkádatpolitiikka vuoiggalašvuoda váikkuhusaid árvvoštallama ovdánahttimii. Árvvoštallangažaldagat fáallet vejolašvuoda lađastallat dálkkádatpolitiikka vuoiggalašvuoda váikkuhusaid ovdalačča gokčevaččabut. Sierra vuoiggalašvuoda dimenšuvnna goitge šaddet latnjalassii, iige daid leat álohii oba vuogálašge sirret nuppiineaset.

Jurddaboáđusin gávnnavuvvo, ahte áinnas dovddasteaddji vuoiggalašvuodha hástala politiikka válmastalliid ja árvvoštalliid suokkardit vuoiggalašvuoda váikkuhusaid ovdalačča čiekŋaleappot. Gustojeaddji váldesajádagat ja asttahuvvon ovdamunit, vehádagaid rolla, sihke earret eará šattakeahtes buolvvaid ja sápmelaččaid rievttit leat visot fuomášumi gáibideaddji dagaldagat. Dovddasteaddji vuoiggalašvuoda bakte sáhttet hábmejuvvot ovdamearkka dihte meannudanvugiin dakkár muttut, main lea buorideamoš, ovdamearkka dihte aiddo ovdal namuhuvvon joavkkuid searvama vejolažžan dahkama dihte. Vuoiggalašvuoda árvvoštallama ovdánahttin lea konstruktiivvaš russolasvuodaid čoavdima dehálaš oassi, mii dás duohkonai šaddá veagal bargujuvvot. Dieđasurorgerájiid rasttildeaddji dutkamuš lea dehálaš vuoiggalašvuoda ovdáneami várás. Dálkkádatpolitiikka vuoiggalašvuoda váikkuhusat galget čuvvojuvvot ja dain galgá dieđihuvvot rahpasit ja dat galget olahit álbmoga.

## ČUÁKÁNKIÄSU

Šonĵadahpoliitk vuoigâlâšvuodâkoččâmušâid lii puáttám kuávdâšlâš uási savâstállám šonĵadahpoliitk pirrá. Vuoigâlâšvuodâ visâsmittem šonĵadahtooimâi pirrá lii kirjettám meiddei oovtâ uđđâ šonĵadahlaavâ uulmán, mon puátusin šonĵadahtooimâi vuoigâlâšvuodâváikuttâsâid kalga puátteevuonâst árvuštállâđ šonĵadahvuáváámij ráhtim já olâšuttem čuávum. Šonĵadahpaaneel šonĵadahpoliitk vuoigâlâšvuodâ - haavâst lii viggâm lasettiđ viätu tast, maid uáivild vuoigâlâš šonĵadahpoliitk. Taan čielgiittâsâst suogârdálloo târhibeht, maht šonĵadahpoliitk vuoigâlâšvuodâ puáhtá árvustállâđ. Árvustállâmpaargo oovdedmân čielgiittâsâst oovdânpuáhtoo juávhu vuoigâlâšvuotâváikuttâsâi árvustállâmkoččâmušâid.

Vuáđu- já olmoošvuoigâđvuodah fáälih vuáđu, moos šonĵadahpoliitk vuoigâlâšvuodâ árvustállám šaddoo. Tááláá já puáttee suhâpoolvâi vuoigâđvuotâ elimân já tiervâsvuotân váátá, ete šonĵadahnubâstus iästojuh já šonĵadahnubâstus vuáhádum ovdedeh. Čielgiittâs vuolgâsaijeen lii, ete politiiktáá ij puáhtá leđe vuoigâlâšvuotâ. Pyeremussân šonĵadahpoliitkâin puáhtá tivvoođ fossiilekonomia epivuoigâlâšvuodâid. Šonĵadahtooimâi vuoigâlâšvuodâ árvustállám tarbâšuvvojeh, nuuvt ete šonĵadahpoliitkâin ij puáhtá selgânid uđđâ epivuoigâlâšvuodâid, aainâškin ete toid ij pyereet mahtnii. Šonĵadahpoliitk ij kuittâg ohtuu pyevti čuávdiđ puoh vuoigâlâšvuotâkoččâmušâid já tondiet kalga puáttee väldiđ vuotân vijđâsuboh politiikubâlâšvuodâid.

Čielgiittâsâst čovdâččeh šonĵadahpoliitk vuoigâlâšvuodâ tutkâmuškirjâlâšvuodâst jođettem kuulmâ vuoigâlâšvuodâ ooláádmudo mielđ; jyehim -vuoigâlâšvuotâ, tubdâsteijee vuoigâlâšvuotâ já vuovij vuoigâlâšvuotâ. Jyehimvuoigâlâšvuotâ tárkkoo šonĵadahtooimâin puáttee hiäđui já hááitui juáhâsem. Uáassin jyehim-vuoigâlâšvuotâ tárkkoo meiddei sajanmâksee koččâmušâid ađai olâšum hááitui sajanmâksim teikâ háittuvaikuttâsâi kepidem. Jyehim-vuoigâlâšvuodâst váikuttâsâi čuosâtem eres kuovdâtaasijn, páiháliist gloobaalân, váátá tárkkum. Tubdâsteijee vuoigâlâšvuotâ čuosât huámmâšume toos, maht ulmui ereslágáneh sajattuvah já ovdâmerkkân sosiokulttuurilâš tahheeh vaigutteh šonĵadahpoliitk čuávumušâi čuosâtem. Vuovij vuoigâlâšvuodâin tárkkojeh tom, maht vuoigâlâš ereslágáneh politiiklâš miäradâšráhtim mudoh láá. Sierâlágán havvumvuodâ lasetteijee tahhei sehe eromâšávt šonĵadahpoliitkâst tehâlâš juávhu, nuuvt-uv puáttee suhâpoolvâi já sâmmilij, vuotânväldim lii tehâlâš uáassin tubdâsteijee vuoigâlâšvuotâ já vuovij vuoigâlâšvuotâ.

Vuoigâlâšvuotâooláádmudoi kiedâvušmân vuáđuđ čielgiittâsâst iävtut juávku árvuštállâmkoččâmusâid, maid puáhtá ávhâstállâđ šonĵadahpoliitk vuoigâlâšvuodâ árvustállám oovdedmân. Árvustállâmkoččâmušah fáällih máhđuľâšvuodâ čovdâččid šonĵadahpoliitk vuoigâlâšvuotâváiguttâsâid luávdebeht ko ovdil. Eres vuoigâlâšvuodâ ooláádmudoh kuittâg maneh uásild pajaluvâi, ige taid lii ain taarbâšlâšgin sierrid nuubijn.

Juurdâpuáđusin páhuduvvoo, ete eromâšávt tubdâsteijee vuoigâlâšvuotâ hástá poltiik valmâstelleid já árvuštállâjeid suogârdiđ vuoigâlâšvuotâváiguttâsâid jienĵâlisávtub ko ovdil. Tááláá vâldisajattah já juksâm ovdâdâsah, ucceeblovo roolâ sehe eres lasseen puáttee suhâpoolvâi já sâmmilij vuoigâđvuodah láá puoh tahheeh moh vááteh huámmâšume. Tubdâsteijee vuoigâlâšvuodâ peht puáhtá kavnađ taggaar muddoid kost lii puáradállám, ovdâmerkkân eidu oovdeeld mainâšum juávhuin uásálistem máhđuľâžžân toohâm.

Vuoigâlâšvuodâ árvuštállám ovdedem lii tehâlâš uási konstruktiiVLâš sierâmielâlâšvuodâi čuávdim, maid puátteevuodâst-uv ferttee jyehi tááhust porgâđ. Tiettuusyergiraajid tastáldittee tutkâmuš lii tehâlâš vuoigâđvuodâ oovdedmân. Šonĵadahpoliitk vuoigâlâšvuotâváiguttâsâid kalga čuávnuđ já tain kalga arvâlâđđâđ ávusávt já juksâmnávt.

## VUÄNÖS

Äimmöspoliitik vuöiggvuödmäaldlažvuöttkööčmöözz lie šöddäm kösksaž vue'ssen ko öhttsažkää'ddest sagstöölät äimmöspoliitik pirr. Äimmöstääimai vuöiggvuödmäaldlažvuöd näänümüš lij kee'rrjövum še öhttän ödđ äimmöslää'jj täävtoözzin, möön seu'rrjössän äimmöstääimai vuöiggvuödmäaldlažvuödvaikktoözzid älgg pue'ttiääi'jest ärvvtöölläd vue'ssen äimmösplaani raajjmööžž da tiu'ddepiijmööžž seu'rrjummuž. Äimmöspaneel äimmöspoliitik vuöiggvuödmäaldlažvuött –ha'ñkööžžâst leä't pörggâm lââ'zzted fi'ttjööžž tö'st, što mäid miärkkšöövât ko mainstet vuöiggvuödmäaldlaž äimmöspoliitikâst. Tän rapoortâst tä'rkstöölät täärkben, mä'htt äimmöspoliitik vuöiggvuödmäaldlažvuöd vuei'tet ärvvtöölläd. Ärvvtööllämtuäj ouu'deem väaras rapoortâst čuä'jtet joukk vuöiggvuödmäaldlažvuöttvaikktoözzi ärvvtööllämkööčmöözzid.

Vuäđđ- da ouumažvuöiggädvuöđ ta'rjee vuäđ, koon ööl äimmöspoliitik vuöiggvuödmäaldlažvuöd ärvvtööllmöss šädd. Änn'jööžži da pue'tti puölvvöoggi vuöiggädvuött jie'llma da tiörväsvuö'tte öölgat, što äimmösmuttâž tuö'll'jet da äimmösmuttsa šiotlöövmmööžž ouu'deet. Rapoortâst vue'lğgämsäâ'jjen lij, što äimmöspoliitiktää ij vuei't lee'd vuöiggvuödmäaldlažvuött. Pue'rmös säâ'jest äimmöspoliitikkin vuei'tet teevvad fossiiltääl pannvuöiggvuödmäaldlažvuöđid. Äimmöstääimai vuöiggvuödmäaldlažvuöd ärvvtööllmööžž taarbšet, što äimmöspoliitikkin jeä't šödde'če ödđ pannvuöiggvuödmäaldlažvuöđid, samai notta, što töid jeä't suävte'če koon-ne naalin. Äimmöspolitikk öhttu ij kuuitäg vääj čäu'dded pukid vuöiggvuödmäaldlažvuöttkööčmöözzid, da tönt lokku ä'lğge vä'ldded veiddsab politikobbvuöđ.

Rapoortâst analysää'stet äimmöspoliitik vuöiggvuödmäaldlažvuöd tu'tkkümüškeerjäžvuöđâst valddum kolmm jee'res vuöiggvuödmäaldlažvuöd vuälvuöđ pääi'k; distributiivlaž vuöiggvuödmäaldlažvuött, sosiokulttuurlaž vuöiggvuödmäaldlažvuött da mööntööllämnaa'li vuöiggvuödmäaldlažvuött. Distributiivlaž vuöiggvuödmäaldlažvuött tä'rkstääll äimmöstääimain šöddum aau'ki da häätai juäkkööttmööžž. Vue'ssen distributiivlaž vuöiggvuödmäaldlažvuöd tä'rkstöölät še suävteei vuöiggvuödmäaldlažvuöd kööčmööžžid le'be šöddum häätai kompensä'sttmööžž le'be häittvaikktoözzi kie'ppümüž. Distributiivlaž vuöiggvuödmäaldlažvuöđâst vaikktoözzi šöddmöss jee'res vu'vddtaa'zzid ärra, pääiklaž tää'zzest globaal tässa, kai'bbai tä'rkstööllmööžž. Sosiokulttuurlaž vuöiggvuödmäaldlažvuött tä'rkstääll tön, mä'htt oummui jee'resnällsem statuuzz da ouddmiärkkän sosiokulttuurlaž tuejjei vaikkte äimmöspoliitik seu'rrjöözzi tiil'löövmmössse. Mööntööllämnaa'li vuöiggvuödmäaldlažvuöd vie'kken tä'rkstöölät tön, mä'htt kudd jee'resnällsem poliittlaž tu'mmjemtuäj poodd lie. Jee'resnällsem ränn'jemvuöđ lââ'zzteei tuejjei'ji da jeärben äimmöspoliitikâst kösksaž joouki, mä'te pue'tti puölvvöoggi da sä'mmlai, lokku välddmöss lij vääžnai vue'ssen tobdstei da mööntööllämnaa'li vuöiggvuödmäaldlažvuöđ.

Vuöiggvuödmäaldlažvuöttvuälvuöđi tä'rkstööllmööžž vuäivva rapoortâst čuä'jtet joukk ärvvtööllämkööčmööžžid, koid vuei'tet äu'kkeeđ äimmöspoliitik vuöiggvuödmäaldlažvuöttvaikktoözzi ärvvtööllmööžž ouu'dummša. Ärvvtööllämkööčmööžž ta'rjee vuei'ttemvuöđ analysä'stet äimmöspoliitik vuöiggvuödmäaldlažvuöttvaikktoözzid veiddsubun ko ouddâl. Jee'res vuöiggvuödmäaldlažvuöd vuälvuöđ kuuitäg lie luämmööžži, jie-ga töin päi leäkku ni tarbb jeär'ded kuei'mstes.

Juurpuättmössän tuöđât, što jeärben sosiokulttuurlaž vuöiggvuödmäaldlažvuött káčč poliitik valmstööll'jid da ärvvtööll'jid tu'mmjed vuöiggvuödmäaldlažvuöttvaikktoözzid täärkben ko ouddâl. Leä'mmen le'ddi vä'lddstatuuzz da vuäžžum ouddööžž, minoritee'tti rool, da jeärbi mie'ldd šöödde'tmes puölvvöoggi da sä'mmlai vuöiggädvuöđ lie puk vuämmšem kai'bbjeei tuejjei. Sosiokulttuurlaž vuöiggvuödmäaldlažvuöđ pääi'k vuei'tet äblkâ'stetted ouddmiärkkän mööntööllämnaa'lin näkkam pooddid, koin lie mäid-ne pue'reemnalla, ouddmiärkkän što samai ouddpeä'lnn peäggum joouk vuäitöe vuässööttäd. Vuöiggvuödmäaldlažvuöttärvvtööllmööžž ouu'dümüš lij vääžnai vue'ss raaji ristreeidai čauddmööžž, koon juä'tkest še šööddät tuejjeed. Tiöttisue'rğgraajid rästldeei tu'tkkümüš lij vääžnai vuöiggvuödmäaldlažvuöđ ouu'deem diött. Äimmöspoliitik vuöiggvuödmäaldlažvuöttvaikktoözzid älgg seu'rrjed da töin saaggtümüš älgg lee'd äävai da vuällamlaggan.

## 1. INTRODUCTION

What does just climate policy mean and how can it be evaluated? The Finnish Climate Change Panel has sought answers to these questions through the Climate Policy Justice project. Evaluating climate policy justice became particularly relevant for Finnish policymakers when the objective of ensuring justice of climate policy measures was added as an objective to the new Climate Act (423/2022). A set of evaluation questions are introduced in this report to aid in developing the assessment procedure. The questions are specifically aimed to help Finnish climate policy planners and evaluators. The questions can be used to develop systematic climate policy justice evaluations and to perceive justice in a broader manner.

A focal starting point when evaluating climate policy justice is the necessity of climate change mitigation and adaptation from the viewpoints of global and intergenerational justice (Kivimaa et al. 2021). Failing to mitigate and adapt to climate change creates injustices. Climate policy measures must concurrently be ensured to not increase inequality or incur unreasonable expenses to those most vulnerable. Acknowledging current injustices is also a part of just climate policy evaluation, as a system based on fossil fuel usage causes abundant injustices. At best, climate policy can decrease these injustices. However, climate policy alone cannot solve all questions of injustice, and broader policy mixes must therefore be considered.

The evaluation questions for climate policy justice were formed based on the project's work packages. The questions lean on scientific literature and on three dimensions of justice, used especially in environmental and energy justice research. These dimensions have been presented previously in a discussion paper by the Finnish Climate Change Panel in 2/2021 (Kivimaa et al. 2021). The evaluation questions have been developed further using results from stakeholder workshops, hearings of the Saami Parliament and Skolt Saami Village Assembly, and a citizen survey. The justice evaluation questions formulated by the Finnish Climate Change Panel help broaden the concept of justice beyond the traditional question of wealth distribution, for example by considering sociocultural impacts, existing injustices, and factors influencing decision-making justice.

This report first introduces the central starting points for evaluation questions concerning climate policy justice, including the viewpoints of fundamental and human rights and the three justice dimensions derived from the research literature (Chapter 2). Chapter 3 introduces the evaluation questions for climate policy justice formed in the project. Conflicts arising during climate policy justice evaluations are discussed in Chapter 4, and conclusions are given in Chapter 5.

### 1.1. Stakeholder workshops, citizen survey, and other background work

This report is based not only on an examination of the existing research literature and fundamental and human rights (Chapter 2.2), but it also utilizes a set of stakeholder workshops conducted in 2019–2022, a citizen survey carried out in 2022 regarding perceptions of justice, consultations of the Saami people, and an indicator-based analysis of the justice related to adaptation planning. These processes are described in more detail below.

Stakeholder workshops were used to gain concrete viewpoints of climate policy justice in the transport, energy, and food sectors and to outline the most central justice-related concepts at the time of report compilation. The workshops aimed to engage a wide range of stakeholders from Finnish public administration, various organizations, regional councils, the research community, and the private sector.

Climate policy justice in the transport sector was discussed in a workshop in June 2021. The workshop focused on justice in decision-making and the justice dimensions of various policy measures. A workshop on climate policy justice in the energy sector was arranged in March 2022, immediately after the Russian invasion of

Ukraine. The events of early 2022 were therefore reflected in these workshops, and they added elements of uncertainty to the discussions. The contemporary workshop themes were heating transformation, wind energy, and novel technologies in energy production (hydrogen and small modular reactors). The energy workshop did not highlight any new justice issues that had not already been recognized in an earlier report by the Finnish Climate Change Panel (Lipsanen et al. 2021). Climate policy justice in the food sector was examined through the Just Food project, funded by the Strategic Research Council, which executed an extensive stakeholder process in 2019–2021 (Paloviita et al. 2021; Kaljonen et al. 2022). The project organized three policy dialogue events and 13 focus group discussions for food system operators. Unlike the transport and energy workshops, the Just Food project workshops utilized transition pathway thinking, where a food system transformation was directed at the future visions regarding land use, diets, and technological transformation (Kaljonen et al. 2022). The workshops deliberated just policy measures for each of these transformations. A more in-depth analysis of the workshops is found in Appendix 1 [in Finnish].

The citizen survey was used to clarify Finns' opinions on climate policy justice. This was conducted from both a regional viewpoint and a viewpoint examining factors influencing vulnerability. Responses were collected electronically in June 2022 from three regions in Finland: Helsinki, Northern Ostrobothnia, and Southwest Finland. Responses were obtained from 1487 persons, and the data are representative of the adult population living in these areas in terms of residential area type, gender, and age. Both open and closed questions were included in the survey, and responses were analysed using quantitative, qualitative, and geographic information methods. Results are presented in Vainio et al. (2023).

The Climate Policy Justice project also separately investigated the justice of climate change adaptation planning. Adapting has become a necessity as climate change progresses, but adaptation solutions are not automatically just. Justice is therefore a growing theme in the adaptation literature. However, for now, only scarce information has been available on how justice is accounted for when planning adaptation measures (Mohtat & Khirfan 2021). The justice dimensions presented in Chapter 2.3 were used to form 16 indicators for just adaptation. The adaptation plans of various nations and cities were used to assess how these indicators are realized. The indicators and analysis results are presented in Juhola et al. 2022.

The Saami Parliament and the Skolt Saami Village Assembly were also heard towards the end of the project regarding the draft evaluation questions for climate policy justice. The negative joint impact of competing land uses (e.g., tourism, mining), biodiversity loss, and climate change on the Saami traditional livelihoods Saami on their food security was a question that emerged from the consultation. Wind energy construction and potential green transition investments in the Saami home region were also acknowledged as concerns. The consultation noted that Finnish climate policy should ensure the Saami climate change adaptation opportunities in accordance with their cultural traditions and should acknowledge the societal processes and biodiversity changes that have already caused weakening of the Saami culture. It was suggested that the evaluation questions should be specified with respect to the cumulative effects.

The evaluation questions presented in Chapter 3 were also tested using Finland's Medium-term Climate Change Policy Plan (KAISU) (2020). This helped in understanding how well the drafted climate policy evaluation questions work in describing the justice impacts of the climate plan. As the actual Medium-term Climate Change Policy Plan only presents a limited number of impacts, other tools were used in the evaluation: the National Climate and Energy strategy, a strategic environmental assessment (SEA), carried out in support of the Medium-term Climate Change Policy Plan (Soimakallio et al. 2021), and an assessment of gender effects (Paavola et al. 2021). The assessment questions were further refined with the help of the exercise.

## 2. STARTING POINTS FOR EVALUATING CLIMATE POLICY JUSTICE

Chapter 2.1 begins with an examination of the starting points connected to climate policy justice evaluations in relation to traditional impact assessments. Chapter 2.2. examines fundamental and human rights as bases for assessing climate policy justice. The theory base and justice dimensions presented by the research literature are described in Chapter 2.3.

### 2.1. Climate policy justice impact evaluations versus traditional impact assessments

Impact assessments are an integral part of policy planning and legislative work in Finland. Impact assessment guidelines issued by the Finnish Government (Valtioneuvosto 2022a) have been compiled to aid the legislative work, but they can also be utilized when preparing policy programmes. Impact assessment guidelines categorize all impacts into economic, environmental, and other impacts on people and society. These main categories are divided into numerous subcategories, each of which has its own in-depth guidelines. For example, the Ministry of the Environment has published guidelines for the impact assessment of legislative proposals (Piironen et al. 2021). Additionally, the Act on the Assessment of the Effects of Certain Plans and Programmes on the Environment (SEA Act) (200/2005) requires authorities to conduct environmental impact assessments for such plans and programmes that are estimated to cause substantial environmental effects. The most recent climate change policy plans have also utilized environmental impact assessment in accordance with the SEA Act. Handbooks by the Ministry of the Environment (Ympäristöministeriö 2017) and on climate impact assessments (Hildén et al. 2021) present more specific guidelines for environmental impact assessments (EIA) and SEA. A handbook for assessing the impacts of fundamental and human rights has recently been published by the Ministry of Justice (Rönty 2022).

Justice impacts are not distinguished as a separate impact type in the abovementioned guidelines, despite fundamental and human rights being referred to as justice-securing values in the fundamental and human rights impact assessment handbook (Rönty 2022). On the other hand, impact assessment handbooks recognize numerous justice effects mentioned in this report — although they do not necessarily use the term ‘justice’. The new Finnish Climate Act requires future policymakers to be more systematic when assessing the justice impacts of climate change policy plans. The evaluation questions presented in Chapter 3 can help in examining the justice impacts of climate policy in a more comprehensive manner than currently is being done. The evaluation questions are aimed to aid in assessing the justice impacts of the policy plans and policy mixes in Finland’s climate policy. However, they can also be used when preparing individual laws and policy measures. The questions can be applied at the national, regional, and municipal levels.

As such, justice impacts are not specifically connected to climate policy; rather, justice impacts are formed in all policy areas. However, questions of justice have become focal in climate policy dialogue in accordance with just transition claims. Just transition is mentioned in the Paris Climate Agreement, where it is mainly used to refer to just climate policy in relation to workforce. A just transition is also mentioned in the European Green Deal (European Commission 2019). Its central idea is to “leave no one behind”. This means participating and focusing attention not only on the workforce, but also on sectors and fields of business that are most affected by the transition. This report evaluates justice impacts from a broader viewpoint than the traditional perspective of a just transition, and considers impacts on people and groups of people, drawing from the latest research literature.

The justice impact evaluation questions presented in this report have been formed particularly for climate policy evaluations, although they can justifiably also be used in other contexts. On the other hand, climate policy justice often requires accounting for other policy fields. The impacts of public steering are born through the joint impacts

of several policy measures and fields, allowing justice to be furthered through consistent and supportive policy mixes, such as through collaboration between climate, social, education, and employment policies. Instead of assessing individual policy measures when conducting justice evaluations, it may rather be beneficial to assess policy packages or mixes, where one policy measure complements others. For example, a policy measure causing injustices can be made more just by implementing a transitional period or various compensatory and supportive measures.

Assessing impact significance is an integral part of all impact evaluations. The quality and quantity of impacts are essential factors when assessing climate policy justice, for example when evaluating the need for compensatory measures. Cumulative impacts are also imperative to impact significance. However, evaluating the significance of justice impacts was left outside the scope of this report. Existing impact assessment guidelines help in evaluating significance (see Valtioneuvosto 2022a).

## 2.2. Fundamental and human rights as starting points for evaluating climate policy justice

Finland's new Climate Act (423/2022) contains a justice objective: according to 2 §, the objective of the Act, and of the climate policy planning systems based on it, is to "contribute to ensuring sustainable development and justice of the climate measures". The Act also aims to "contribute to ensuring the prerequisites for the Saami people to maintain and develop their own language and culture". Justice evaluations must therefore be carried out when drafting national climate plans and other climate policy measures. The Annual Climate Report, delivered yearly to the Finnish Parliament, must also evaluate justice impacts. The government-issued legislative proposal (HE 27/2022) states that legislation or international agreements do not define climate policy measure justice in an established manner. The justice objective is seen to contain procedural and contextual viewpoints. These refer to the basic pillars of democracy and to fundamental and human rights. These rights define an adequate standard of living and the prerequisites for a good life. They offer a starting point for the justice evaluation of climate policy because their actualization falls on public authority. Fundamental and human rights form the background of the evaluation questions in Chapter 3. However, this report considers climate policy justice evaluation to require a broader evaluation of justice impacts than just the minimum level attained from fundamental and human rights.

According to 22 § of the Finnish Constitution, public authority must secure the actualization of fundamental and human rights. This obligation guides both the contents and procedure of legislative formulation and of other policy measures planned by the state and municipalities. Without due cause, public authority shall not constrain the fundamental rights of citizens and residents. Public authority shall prevent people from interfering with the fundamental rights of others. Public authority must concurrently actively create prerequisites for the actualization of fundamental rights. Fundamental and human rights belong to everyone. Equality and the prohibition of discrimination (PL 6.2§) are unconditional: they cannot be derogated from.

The government's legislative proposal for the new Climate Act clarifies the meaning of climate justice, mentioned in 2 §. The contextual justice of climate policy measures refers to fundamental and human rights, which are defined in international human rights agreements, the Finnish Constitution, the legal practices of national and international courts of law, and in the decision-making practices of bodies supervising the implementation of human rights agreements. Ensuring that the rights of future generations are actualized is a key aspect from the justice viewpoint. This means that climate policy measures must be effective in relation to climate targets, i.e., Finland must ensure a transition to a carbon-neutral society and later to a carbon-negative society. The legislative proposal refers to a 'just transition', which is considered to mean that unreasonable burden should not be inflicted upon individuals, workforce, population segments, economic life, or trade and industry. Impact assessments are central to understanding such burdens. The legislative proposal mentions transparent

preparations, consultations and hearings, communication, and impact assessments as measures for procedural justice. The Finnish Constitution and the Aarhus Convention decree on access to information, participation, and appeals. Participation is a founding pillar of democracy. According to Constitution 2.2 §: “Democracy entails the right of the individual to participate in and influence the development of society and his or her living conditions”.

Responsibility for the environment (PL 20 §) in the Finnish Constitution includes the rights related to the climate and environment: “Nature and its biodiversity, the environment and the national heritage are the responsibility of everyone. The public authorities shall endeavour to guarantee for everyone the right to a healthy environment and for everyone the possibility to influence the decisions that concern their own living environment”. Concurrently, other environmental targets, such as ecosystem and biodiversity conservation and water quality improvements, should be enforced in addition to climate goals. Current and future generations have the right to life and health, which includes the right to a safe, healthy, and sustainable environment.

Human rights agreements have been established to protect various population groups. The Convention of the Rights of the Child offers an important viewpoint to climate policy justice. Agreements exist for both women’s rights and for prohibiting gender-based discrimination. Human rights agreements and constitutional entries also exist for disabled persons and persons with chronic diseases. The Saami as an indigenous people have the right to their own language and culture and the right to self-government in their home region (PL 17 § and 121 §). The Saami have been recognized as a group vulnerable to the adverse effects of climate change (HE 27/2022). The rights of indigenous peoples to participate in and influence decision-making concerning them, as well as in plans and programmes concerning the environment, are highlighted in the UN Declaration on Indigenous Peoples (United Nations 2007). Finland is committed to implement the declaration. Realizing the rights of specific population groups may require positive measures for protection, as stated by recommendations of international human rights bodies.

With respect to climate policy measures, “everyone has the right to an adequate standard of living that ensures an individual’s and their family’s health and well-being. This includes food, clothing, housing, medical care, and necessary social services” (UN Declaration of Human Rights, Article 25.1). Climate policy measures promote human health and well-being, especially in the long term. However, if climate policy measures lead to price increases of staple commodities in the short term, for example, social security (or aid to developing countries) must correspond to cost-of-living increases. According to 19 § of the Finnish Constitution: “Those who cannot obtain the means necessary for a life of dignity have the right to receive indispensable subsistence and care”. Human rights do not require the state to reimburse any costs incurred through price increases to luxury commodities or annoyances caused when decreasing over-consumption.

Individuals can experience several concurrent factors that cause vulnerability to climate change and/or to climate policy measures. These factors may be related to population group and culture, work and livelihood, and individual characteristics. For simplicity, this report and the proposed evaluation questions use the term ‘vulnerable group’. However, defining vulnerability is always situation-dependent and cannot necessarily be associated with a particular group. Nonetheless, just climate policy should recognize the individuals that require support when transitioning to a low-carbon lifestyle, and/or to a new job or livelihood, and when securing their cultural fundamental rights.

Equality and non-discrimination are recognized in the Finnish Constitution, according to which “everyone is equal before the law” (PL 6.1 §). “No one shall, without an acceptable reason, be treated differently from other persons on the grounds of sex, age, origin, language, religion, conviction, opinion, health, disability, or any reason that concerns his or her person” (6.2 §). “Children shall be treated equally and as individuals and they shall be allowed to influence matters pertaining to themselves to a degree corresponding to their level of development” (6.3 §). The Act on Equality between Women and Men (609/1986) decrees on gender equality. The Non-Discrimination Act (1325/2014) prohibits discrimination on any grounds.



Human rights belong to everyone, and so they should be realized even in international supply chains. The most vulnerable segments or groups in energy, transport, and food systems may be outside of Finland. For example, miners and food producers must have proper working conditions and wages, and products imported to Finland should not cause water shortages or destroy biodiversity. Upcoming EU regulations (European Commission 2022) concerning corporate liability for human rights are meant to improve global human rights and the environmental footprints of products consumed also in Finland, such as internal-combustion engines and electric cars.

The protection of property (PL 15 §) and the right to work and the freedom to engage in commercial activity (PL 18 §) in the Finnish Constitution create the most controversy in relation to climate targets. Everyone's property is protected, and everyone has the right "to earn his or her livelihood by the employment, occupation, or commercial activity of his or her choice". Legal protection of property has previously been the most central aspect of the fundamental rights system. Nowadays, environmental fundamental rights hold a great deal of weight. The ban on coal as an energy source is a practical example. This climate policy instrument was decided upon in 2019 and will become effective in 2029. The Constitutional Committee viewed the ban as acceptable in terms of property protection and the freedom to engage in commercial activity, as production plants can burn other products than coal, they are mainly listed companies, and the transitional period is long (PeVL 55/2018 vp.). From the property protection viewpoint, regulating the use of privately owned forest- and agricultural land is a difficult question with regards to carbon sinks in Finland (e.g., Lähteenmäki-Uutela et al. 2021; Huan-Niemi et al. 2023). Landed property usage can also be regulated through economic policy instruments.

Fundamental rights do not have reciprocal hierarchies in Finland. When adjusting various rights together, the minimum level of each right must be secured and the preconditions for restrictions of fundamental rights must be adhered to. These include exigency for legislation enactment, legislation accuracy and precise circumscription, the acceptability and proportionality of restrictions, inviolability of the core areas of fundamental rights, rule of law arrangement, and for adhering to human rights obligations (PeVM 25/1994 vp.). Securing one fundamental right may increase the acceptability of restricting another.

The following could be considered the minimum levels of Finland's climate policy justice, inferred from fundamental and human rights:

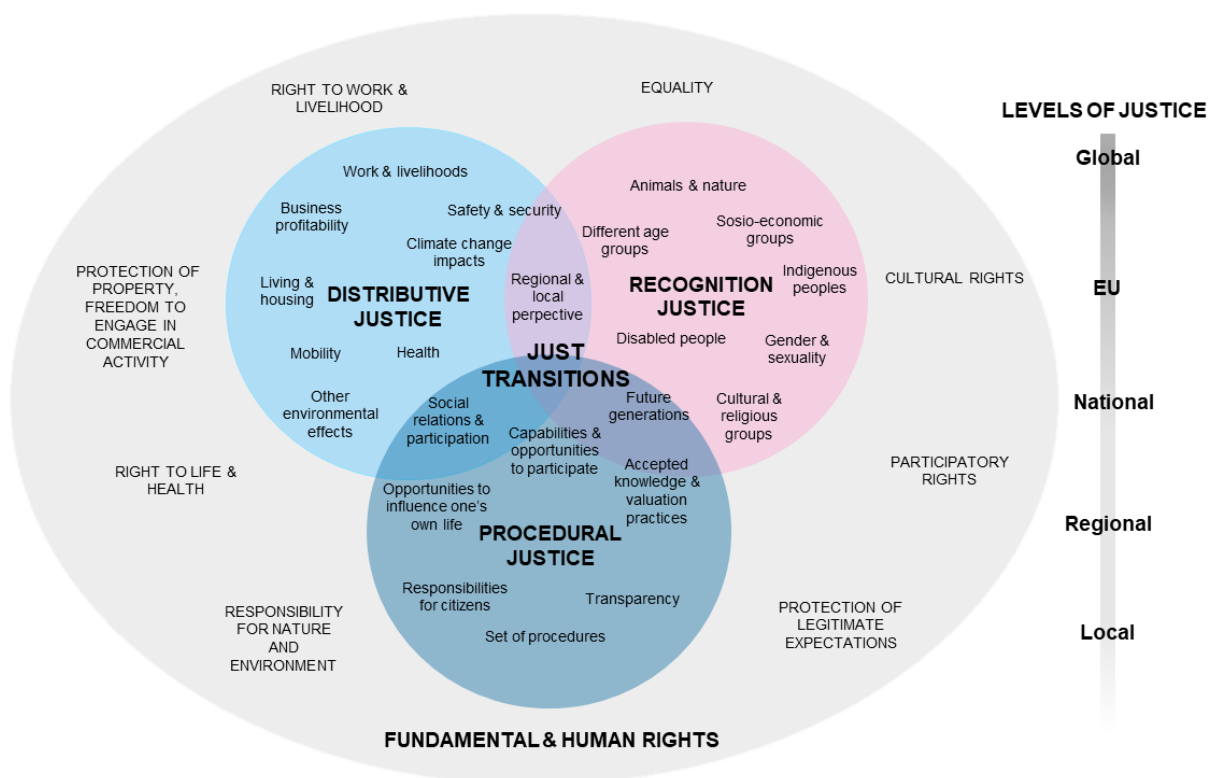
- Ensuring Finland's climate policy measures are sufficient for securing life and health.
- Ensuring that climate policy measures consider other environmental targets, especially biodiversity and water conservation.
- Ensuring sufficient living standards (food, warm housing, mobility) in Finland also during a transformation period, during which fossil fuel -based product prices increase, and the products eventually disappear.
- Ensuring that human rights, including workforce rights and environmental rights, are realized in supply chains that link with climate policy.
- Ensuring that property usage and livelihood practising remains possible in all regions of Finland or that any bans and restrictions preventing normal property usage or livelihood practising are compensated.
- Ensuring that the Saami, as an indigenous peoples, have the prerequisites for practicing and maintaining their culture and for passing it down to future generations. Ensuring that international climate policy also secures indigenous rights.
- Ensuring that climate actions place no one, without due cause, in different positions based on gender, age, origin, language, religion, conviction, opinion, health, disability, or any other factor related to person.

Fundamental and human rights are universal criteria for a good life, or they are the highest aspirations of humanity. However, their interpretations can contradict each other, as can broader questions of justice. Society

has varying ways for emphasizing the rights and benefits of various actors. The choices of which justice dimensions and questions to emphasize are value judgements, which are part of policymaking. Democratic decision-making is needed when deciding on the just division of benefits and costs between socioeconomic groups and various region, for example.

### 2.3. Dimensions of justice

The Finnish Climate Change Panel’s Climate Policy Justice project uses three dimensions, introduced in environmental and energy justice research literature, to outline the concept of justice (Schlosberg 2007; Tribaldos & Kortetmäki 2022; Williams & Doyon 2019, see more Kivimaa et al. 2021). This division examines justice through distributive, recognition, and procedural justice. Distributive justice focuses on the societal distribution of benefits and disadvantages. Restorative justice is considered alongside and separately from distributive justice, and it focuses on compensating realized disadvantages or mitigating their impacts through mechanisms that level out distributive effects. Recognition justice acknowledges the sociocultural differences of people and groups, their various societal positions, and their special needs and vulnerabilities formed through their differences. These should be acknowledged when examining distributive and procedural justice. Procedural justice focuses on the fairness of decision-making processes. This requires examining the equitability of participatory opportunities, the transparency and impartiality of decision-making, and the accountability of decision-makers to citizens and residents.



**Figure 1.** Climate policy justice can be examined through three partially overlapping dimensions. These dimensions are encompassed by fundamental and human rights. Their relationships with justice assessments are discussed in Chapter 2.2. Justice evaluations can also consider impact levels ranging from local to global. (Edited from Kivimaa et al. 2021).

The evaluation questions developed for assessing climate policy justice are based on the abovementioned three dimensions and on the fundamental and human rights. The evaluation questions and justice dimensions are presented in more detail in Chapter 3. The dimensions are meant to aid in outlining justice. However, it should be noted that the dimensions of justice intertwine, and separating them from one another is not always easy or even practical. The connections between the dimensions are presented in Chapter 3.

### 3. EVALUATION QUESTIONS FOR CLIMATE POLICY JUSTICE

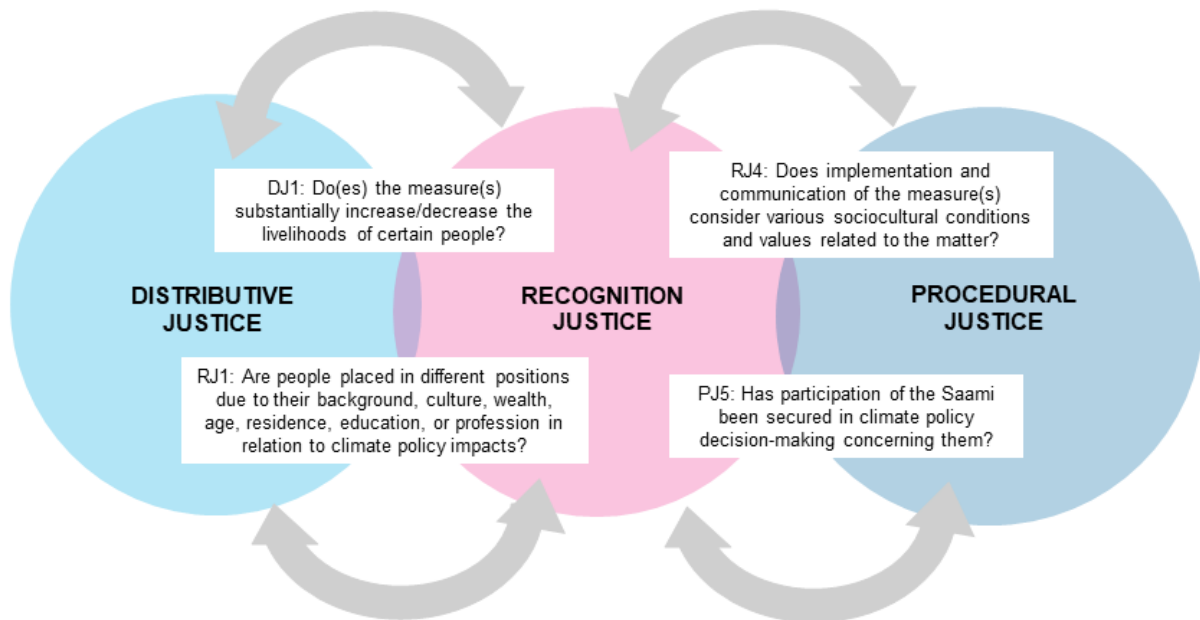
This chapter presents evaluation questions to support and develop climate policy justice evaluation (Table 1). The questions are based on the three-dimensional understanding of justice presented in Chapter 2. Distributive justice evaluation questions are introduced in Chapter 3.1., recognition justice questions in Chapter 3.2., and Chapter 3.3. compiles the questions related to procedural justice. Each chapter first briefly describes the background for the dimension in question based on literature and practice. Next, the evaluation questions, along with additional aiding questions, are presented in tabular form. The reasoning behind each question is elaborated beneath each table. The aiding questions presented in the tables are not separately dealt with in this report, but they may help in conceptualizing essential factors by way of example. Table 2, dealing with distributive justice, additionally presents questions related to identifying restorative justice mechanisms.

**Table 1.** Evaluation questions for climate policy justice.

Distributive justice	Recognition justice	Procedural justice
DJ1: Do(es) the measure(s) substantially increase/decrease the livelihoods of certain people?	RJ1: Are people placed in different positions due to their background, culture, wealth, age, residence, education, or profession in relation to climate policy impacts?	PJ1: Do citizens have equal opportunities to participate in policy formulation?
DJ2: Do(es) the measure(s) increase/decrease opportunities for employment or for practicing own livelihood?	RJ2: Do(es) the measure(s) increase/decrease vulnerability?	PJ2: Is decision-making formulated in a fact-based manner?
DJ3: Do(es) the measure(s) increase/decrease health benefits or disadvantages caused to certain people?	RJ3: Do(es) the measure(s) improve/weaken the realization of the fundamental and human rights of the Saami? Do(es) the measure(s) improve/weaken their possibilities for maintaining and developing their culture?	PJ3: Are citizens able to hold decision-makers accountable for formed decisions?
DJ4: Do(es) the measure(s) increase/decrease the environmental effects caused to certain regions or people?	RJ4: Does implementation and communication of the measure(s) consider various sociocultural conditions and values related to the matter?	PJ4: Does policy formulation account for the differences between sociocultural values and positions of people and groups, and their specific needs and vulnerabilities?
DJ5: Do(es) the measure(s) increase/decrease other effects caused to people, groups, or regions in Finland?	RJ5: Is/are the measure(s) ensured to be non-discriminatory based on e.g., nationality, age, gender, disability, or illness?	PJ5: Has participation of the Saami been secured in climate policy decision-making concerning them?

<p>DJ6: Do(es) the measure(s) increase the disadvantages/benefits incurred over national borders and globally?</p>		<p>PJ6: How have the viewpoints of youths and future generations (youths, children, unborn generations) been considered in the formulation?</p>
--	--	---

As with the dimensions presented in Chapter 2.3., the justice evaluation questions are also intertwined. When the justice impacts of climate policy are evaluated, their relations with each other must be examined. Therefore, the relations between the evaluation questions can be considered supportive of one another. For example, recognizing a group vulnerable to a certain policy measure or mix of policies may require evaluating the measures' distributive justice impacts. On the other hand, restorative justice mechanisms can be used to alleviate the vulnerability of this same group. Recognizing the group's vulnerability is key to realizing procedural justice. Correspondingly, recognition justice can be furthered by ensuring that this group is heard and acknowledged.



**Figure 2.** Intertwining justice dimensions, and examples of evaluation questions that relate to more than one dimension.

### 3.1. Distributive justice

Distributive justice examines the distribution of benefits and disadvantages within society. In this report, distributive justice specifically refers to the distribution of benefits and disadvantages caused by climate policy measures. The term does not refer solely to monetary benefits and disadvantages, such as business operations or work and livelihoods, but also, for example, to the distribution of benefits and disadvantages to health, well-being, the environment, and living environment. Impacts can focus on nutrition, living, mobility, safety, or social relations, for instance (Carley & Konisky 2020, Järvelä et al. 2020, Kaljonen et al. 2020, Kivimaa et al. 2021, Mullen & Marsden 2016). Distributive justice typically deals with material aspects, while recognition justice (Chapter 3.2.) is used to acknowledge the sociocultural starting points and readiness of vulnerable groups. Justice impacts can be realized immediately or over longer periods of time, and they can be either direct or indirect by nature. Recognizing intergenerational effects is also important (McCauley et al. 2019). Considering multidimensional impact chains is essential when evaluating distributive justice impacts, even if these chains cannot always be assessed in detail. An assessment can utilize various approaches used in policy impact assessments. These include indicators (e.g., Carbajo & Cabeza 2019, Rinne et al. 2013, Lyytimäki et al. 2018) or approaches founded on intervention theory or side-effect evaluations that are based on evaluation research (e.g., Crabb & Leroy 2012, Kautto & Similä 2005, Mickwitz 2003, Vedung 1997). An evaluation can examine the magnitude, duration, permanence, and probability of direct and indirect disadvantages and benefits, along with the distribution evenness or unevenness of disadvantages and their possible synergies (Kivimaa et al. 2021).

Restorative justice is considered alongside and separately from distributive justice, and it focuses on compensating realized disadvantages or mitigating their effects through various instruments that balance the distributive impacts (Williams & Doyon 2019). Restorative justice in climate policy means mitigating acknowledged justice impacts (McCauley & Heffron 2018; Hazrati & Heffron 2021). For example, in Finland, Ahonen et al. (2020) have examined the allocation of carbon payments in the transport sector to households and how these impacts could be compensated for to those whose incomes are disproportionately affected (Ahonen et al. 2020).

Restorative justice can be thought to be based on compensating significant or unacceptable disadvantages or impacts that are observed through distributive or recognition justice. In practice, restorative justice can mean a transitional period set for a policy measure, for example. However, implementing restorative justice is often very difficult within the limits of the policy measure in question. Therefore, it is more prudent to think of restorative justice in connection with policy mixes. In this case, the restrictions placed on a certain livelihood can be made more just through other policy measures, for example by supporting the retraining and re-employment of the affected people (Kaljonen et al. 2022; Huttunen et al. 2022). Restorative justice connected to historic injustices means acknowledging present conditions and the injustices in their backgrounds and mitigating them. Therefore, restorative justice allows for realizing injustice-causing policy measures in a more just manner. However, it is not always possible to solve justice questions through compensation.

Table 2 presents the central questions related to evaluating distributive justice. The Table also presents potential questions that should be acknowledged in terms of restorative justice. It is important to recognize who benefits and suffers from policy measures, how the benefits and disadvantages are distributed now and in the future, and how significant they are. Examining unevenly distributed impacts, along with their spatial dimensions ranging from local to global, is essential. During an evaluation, it is also important to perceive the temporal changes to the impacts: a disadvantage can become a benefit, or vice versa, or the magnitude of an impact can change even if its direction remains unchanged. The outlined questions steer towards examining the impact direction by asking whether a climate policy increases or decreases the mentioned benefits or disadvantages. It must be noted, however, that an unchanged situation may also have a significant effect.

**Table 2.** Evaluation questions for evaluating distribute justice in climate policy.

Evaluation questions	Aiding questions	What restorative methods are available?
<p><b>DJ1: Do(es) the measure(s) substantially increase/decrease the livelihoods of certain people?</b></p>	<p>Do(es) the measure(s) weaken opportunities for fulfilling the basic needs of life?</p> <p>Do(es) the measure(s) increase or decrease the opportunities of future generations for fulfilling their basic needs of life or livelihoods?</p> <p>Do livelihood impacts have clear regional differences in Finland?</p>	<p>Is it possible to avoid or mitigate harmful livelihood impacts?</p>
<p><b>DJ2: Do(es) the measure(s) increase/decrease opportunities for employment or for practicing own livelihood?</b></p>	<p>Is a certain livelihood at risk of disappearing completely?</p> <p>Are jobs increasing/decreasing particularly in certain regions?</p>	<p>What alternative employment or livelihood sources are available?</p> <p>Are opportunities for reskilling or retraining available? Is it possible to increase the opportunities for reskilling and retraining or for finding new employment?</p>
<p><b>DJ3: Do(es) the measure(s) increase/decrease health benefits or disadvantages caused to certain people?</b></p>	<p>Do(es) the measure(s) cause health disadvantages?</p> <p>Do(es) the measure(s) weaken or improve health?</p> <p>Do(es) the measure(s) increase or weaken the opportunities of future generations to lead healthy lives?</p>	<p>Are alternatives available for avoiding or mitigating health disadvantages?</p>
<p><b>DJ4: Do(es) the measure(s) increase/decrease the environmental effects caused to certain regions or people?</b></p>	<p>Do(es) the measure(s) improve/weaken the living environment of certain individuals?</p> <p>Do(es) the measure(s) increase or weaken the opportunities of future generations for a healthy and safe living environment?</p> <p>Do(es) the measure(s) weaken/improve the condition of nature or biodiversity in certain regions?</p>	<p>Are alternatives available for avoiding or mitigating environmental disadvantages?</p> <p>How can e.g., environmental disadvantages or the weakening of natural environments through land use be compensated?</p>

<p><b>DJ5: Do(es) the measure(s) increase/decrease other effects caused to people, groups, or regions in Finland?</b></p>	<p>How are benefits and disadvantages distributed across Finland/in sparsely populated regions/rural areas/cities?</p> <p>Do(es) the measure(s) weaken/improve the mobility opportunities of certain individuals?</p> <p>Do(es) the measure(s) weaken/improve the security of certain individuals?</p>	<p>Is it possible to avoid or mitigate caused disadvantages?</p> <p>How does a policy mix mitigate potential disadvantages?</p>
<p><b>DJ6: Do(es) the measure(s) increase the disadvantages/benefits incurred over national borders and globally?</b></p>	<p>How are benefits and disadvantages distributed outside of Finland?</p> <p>What impacts are caused in other countries regarding the security of income/supply and security/human rights/ environmental problems/ health, or conflicts connected to the abovementioned?</p>	<p>Is it possible to avoid or mitigate the harms or disadvantages caused?</p> <p>What national legislative or other steering mechanisms are in place that can be used to oversee and constrain impacts that increase global injustices?</p>

Nearly all the listed distributive justice evaluation questions can be evaluated using impact assessment guidelines published in Finland. For example, the SEA Act requires Finnish officials to assess the environmental impacts of certain plans. Environmental impact assessments complying with the SEA Act are also mandatory when preparing climate change policy plans according to the new Climate Act. In the SEA Act, environmental impacts are considered to mean the direct or indirect effects of a plan or programme, either in Finland or outside of the country, on the health, living conditions, and well-being of individuals (see evaluation question DJ3); on the soil, waters, air, climate, flora, fauna, and biodiversity (see evaluation question DJ4); on community structure, the built environment, landscape, cityscape, and cultural heritage; on the utilization of natural resources; and on the relationships between the abovementioned factors. Impacts to Saami culture are assessed as part of the SEA process with all plans that address the Saami.

However, the evaluation of distributive justice may require more in-depth impacts examination than conventional impact assessment. The distribution of impacts between people, groups, and regions is of particular interest. If impacts are observed to be unevenly distributed, restorative justice mechanisms must be weighed: can the effects be mitigated/evened out and is this necessary? How ready are individuals to adapt? Certain impact categories may be accentuated in the climate policy context. For example, work-related impacts may be large in a sustainability transition, as transitioning from a fossil fuel -based economy to a more sustainable model alters the sources of employment and livelihoods. Considering future generations is a particularly important viewpoint in the evaluation questions, although this topic can also be considered as a part of recognition justice assessment.

*DJ1: Do(es) the measure(s) substantially increase/decrease the livelihoods of certain people?*

Climate policy measures can impact the financial situation of individuals and households in multiple ways. In such cases, the measure must be ensured to not substantially decrease the opportunities of satisfying basic needs. For example, price control methods may increase household living costs, particularly in situations where options are unavailable. The income effects of mitigation measures may also be unevenly distributed between regions (see evaluation question DJ5). For example, the survey conducted by the Finnish Climate Change Panel's Climate Policy Justice project (Vainio et al. 2023) showed that mitigation measures are considered to weaken mobility alternatives particularly in rural Finland, where distances are great and owning a car may be necessary. Mobility-related costs may also influence individuals' opportunities for employment (see evaluation question DJ2).

Finland has been shown to experience small-scale energy poverty when it is defined as a household's inability to pay necessary heating and electricity costs (Oja et al. 2013). The 2021 report by the Climate Change Panel (Lipsanen, Kivimaa & Leino 2021) emphasizes that energy poverty and opportunities to intervene with it in advance should be discussed. Energy poverty as a part of the just transition is underlined due to the energy crisis and increase in living costs that began in 2022.

If mitigation or adaptation measures cause substantial disadvantages to individuals, groups, or regions, restorative justice measures can be used to alleviate the disadvantages, thus allowing for mitigation measures to be perceived as just. In a case where living costs are to increase substantially due to a policy instrument, economic compensation could be considered in a way that upholds the steering effect while concurrently alleviating the experience of injustice and securing basic needs. Tax deductible commuting expenses and various economic support measures for low-income individuals are examples of existing socio-political instruments that could also be used in connection with climate policy. The citizen survey conducted during the Climate Change Panel's Climate Policy Justice project (Vainio et al. 2023) investigated respondent attitudes towards compensation measures in situations where climate measures increase fuel prices. Respondents considered public transport support measures to be the most just compensation measure. Restorative justice measures also link to recognition justice and to the question of who requires compensation (see Chapter 3.2).

*DJ2: Do(es) the measure(s) increase/decrease opportunities for employment or for practicing own livelihood?*

Employment is inevitably changing with the transition towards a carbon-neutral society. Mitigation measures may threaten livelihoods or decrease the number of job opportunities in fields that are fossil fuel -dependent or that produce substantial land use-related emissions. As jobs can be concentrated in certain regions and employment fields may either be male or female dominated, we must consider how the impacts of mitigation measures link not only with economic non-discrimination but also with regional non-discrimination and gender equality (Paavola et al. 2021). In addition to considering singular livelihoods and jobs, the multiplicative effects directed at regions and production chains must also be considered. The most significant employment impacts caused by climate measures in Finland are estimated to be indirect and to be directed, for example, at commerce, industrial services, and other forms of industry (Kuusi et al. 2021). A sustainability transition may require redefining the context of property protection and freedom of occupation. Fossil fuel economy sectors and functions are transforming, and some may even disappear completely.

On the other hand, fields linking to a green transition or fields that are otherwise less harmful to the climate can benefit from mitigation measures, leading to the creation of new jobs with new production chains and regional impacts. However, it must be noted that these new jobs are not necessarily located in the same regions as previous jobs (see question DJ5, Lund 2023) or, for other reasons, they are not necessarily attainable by individuals employed in dwindling employment fields. However, fields traditionally leaning on fossil fuels can develop their business activities in directions that are less detrimental to the climate. The justice evaluation of



climate policy planning should therefore examine how policy mixes consider changes in skills. Employment perspectives are also influenced through policy coherence. If climate policy ambitions are suddenly weakened, this creates employment uncertainty in so-called green employment (Moilanen & Alasoini 2023).

The assessment of employment impacts is approached through legislative impact assessment guidelines by evaluating where work is created and where it disappears from. The sustainability transition at hand may require considering the impacts of, for example, personal identities and cumulating vulnerabilities, which link with the question of recognition justice (see Chapter 3.2.). The impacts caused by foregoing a livelihood should potentially be assessed in a more comprehensive manner. For example, the Just Food project found that the question of peat field emissions reductions is not solely linked to distributive justice but rather requires acknowledging the various positions of farmers through recognition justice (Kaljonen et al. 2022).

Supporting actors' abilities to change under situations caused by new climate policy measures is central to restorative justice. This can be done not only with economic support measures or by strengthening socio-political benefits, but also through many forms of enabling policies such as education or employment policies. Transitional periods and reskilling, training, and education are methods used to streamline a transition and to increase its fairness. As restorative measures, landowners, entrepreneurs, and workforce may have the right to training and societal support for finding new modes of action, livelihoods, and professions (Lähteenmäki-Uutela et al. 2021a). Employees in Finland have particularly supported education policy measures and increasing competence as solutions to the employment impacts of climate policy measures (Huttunen et al. 2022). Policies related to restorative justice have been carried out in Finland in regions experiencing structural change, for example in cases where a regionally significant employment-offering industrial plant has been shut down.

*DJ3: Do(es) the measure(s) increase/decrease health benefits or disadvantages caused to certain people?*

Protecting health is the basis of Finnish environmental legislation. This means that the environment and work environment cannot cause harm to health. However, climate policy can have substantial impacts on health. Mitigating climate change can cause health benefits, for example when transferring from fossil fuel-based mobility to walking and bicycling, which decreases the health hazards caused by traffic air pollutants and helps attain health benefits through physical exercise, for instance by decreasing cardiopulmonary risks.

Transitioning from animal-based diets to plant- and fish-based diets is another example of the co-benefits between climate mitigation and health benefits (Friel et al. 2009; Kaljonen et al. 2022). From the justice viewpoint, the most problematic questions are related to energy conservation measures focused on housing, which may increase health disadvantages, particularly in children, the elderly, and individuals with chronic illnesses. For example, excessive reductions in building ventilation increase indoor pollution caused by material emissions and by peoples' metabolic products. These have both short- and long-term health effects. Excessively low and high indoor temperatures can additionally have adverse health effects, especially in more sensitive individuals.

Climate policy should always compile comprehensive short- and long-term health impact assessments. These assessments should weigh the attained health benefits and incurred health disadvantages in various population segments and in sensitive individuals. Central questions are sensitivity related to individual state of health, sensitivity due to socioeconomic circumstances, and spatial and cultural factors that influence the health effects of climate change, its mitigation, and adapting to it.

*DJ4: Do(es) the measure(s) increase/decrease the environmental effects caused to certain regions or people?*

Mitigating and adapting to climate change, and a green transition may require measures that impact people's living environments. The impacts of these measures are place-dependent, but they may also extend over wide

areas or be distributed spatially unevenly. For example, building wind power, establishing new mines, or preparing for flood events change local living environments. Such changes can weaken the opportunities of enjoying a healthy living environment now and in the future. We must also consider assessing the need for restorative justice measures, for example, in the form of ecological compensations (see more in Pekkonen et al. 2020). This evaluation question is founded on environmental fundamental rights in the Finnish Constitution (PL 20 §). On the other hand, climate change mitigation measures can also enhance living environments both locally and globally. In addition to decreasing climate change disadvantages (e.g., floods, droughts, heat waves), increasing carbon sinks or refraining from building large combustion plants, for example, can improve the condition of the environment.

According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC) (Pörtner et al. 2021), the interactions between biodiversity loss and climate change must be understood and they must be jointly combatted. The impacts of climate policy measures must also be evaluated in terms of biodiversity and halting biodiversity loss. Environmental impact assessments are part of climate change policy plan assessments in accordance with the Finnish Climate Act, and ample guidance is available for performing them.

*DJ5: Do(es) the measure(s) increase/decrease other effects caused to people, groups, or regions in Finland?*

In addition to the abovementioned evaluation questions, climate policy may also need to examine the distribution of other benefits and disadvantages along with how these impacts are distributed between regions. These can include benefits and disadvantages related to mobility and safety. The abovementioned questions related to income, job opportunities, and health and the environment all have clear connections with the fundamental rights of the Finnish Constitution, and these other impacts can also be based on fundamental rights, for example on the freedom of movement (PL 9 §).

Justice has been regionally examined, for example with respect to energy transitions at various spatial scales (Sovacool et al. 2019): local, regional, national, and international. This same spatial categorization can also be used in broader justice evaluations. The underlying demographic and socioeconomic factors of individuals, groups, and communities are emphasized at the local level, and these can cause vulnerability to policy measures. At the regional level, the location of resources and livelihoods, the urban–rural dimension, and how distance affects service access, for instance, may be key features when examining justice between regions. Justice questions may emerge at the national level, such as fiscal or employment questions. Regionally uneven impacts can also be recognized in connection with the previous evaluation questions (DJ1–DJ4).

Spatial examination of the benefits and disadvantages of climate policy measures is important in Finland to account for regional distinctive features. Most of the Finnish population resides in southern Finland and in cities, and sparsely populated areas are emphasized in northern and eastern parts of the country. Regions are therefore unequal in terms of mobility opportunities and the costs incurred from mobility, for example. Climate policy measures can additionally have unevenly distributed impacts on various livelihoods (e.g., Lund 2023) and types of residence. It may therefore be useful to examine the impacts of food, energy, and transport sector climate policy measures concurrently in different regions. Potential cumulative effects caused by these impacts can be mitigated through restorative justice measures or through procedural justice by accounting for regional equality in decision-making processes.

Unevenly distributed benefits gained through various economic support measures may also need examination. For example, a SEA assessment (Soimakallio et al. 2021), conducted for Finland's Medium-term climate change policy plan and the National Climate and Energy Strategy, notes that purchase support for low-carbon vehicles and scrapping premiums benefit middle-income wage earners but not low-income wage earners. The gender

assessment of the National Climate and Energy Strategy (Paavola et al. 2021) noted that males own more electric cars than females do, and income disparity was given as the most likely reason.

*DJ6: Do(es) the measure(s) increase the disadvantages/benefits incurred over national borders and globally?*

Global justice raises attention from the national to the global level and emphasizes the non-discrimination of all people, their equal rights, and their equal responsibilities for the well-being of others. Global justice is central to climate policy, for example when acknowledging the historical benefits gained by certain countries when producing cumulative emissions, especially when the worst affected countries have often contributed relatively little to the creation of the problem (Helm 2009, Robinson & Shine 2018). In terms of mitigation, global questions are related to the impacts of measures in other countries through global commerce, resource flows, and emissions calculations. For example, due to Finland's international trade and consumption, our consumption-based emissions are nearly 50 per cent higher than our production-based net emissions, which are reported as Finland's emissions accordingly with international reporting rules (Friedlingstein et al. 2021). The ethical questions related to rare minerals utilized in a sustainable energy transition, such as the local environmental effects of mining and its effects on health and well-being (Martin & Iles 2020), are another example of the justice impacts caused by Finnish consumption outside national borders. The relationship between global and local justice is not always straightforward. Locally and nationally just policy can be globally unjust and vice versa (Stevis & Felli 2020). (Kivimaa et al. 2021).

Finland's national climate policy and measures, along with the country's participation in EU climate policy (e.g., through climate funding, support for civic organizations, and development aid) impact the position and rights of indigenous peoples. So do the country's actions in international climate policy work in the UN, the Arctic, and the Barents region. Technologies created to mitigate climate change and the natural resources required for these technologies may be produced in regions and nations that violate the rights of indigenous peoples or utilize the natural resources found on the lands of indigenous peoples without their free, prior and informed consent. This is highly problematic from the viewpoint of just burden sharing and for the actualization of fundamental and human rights. It integrally connects to recognition justice by linking to the cultures and livelihoods of indigenous peoples (see RJ5, Chapter 3.2). Restorative justice is especially relevant for indigenous peoples, as they are globally one of the most vulnerable groups due to climate change and concurrently one of the most threatened groups whose adaptation possibilities are substantially influenced by historical legacies, colonialism, and experienced injustices. Restorative justice is a principal factor in the decision-making practices of the UN Human Rights Committee. On September 22, 2022, the Committee ruled on the individual communication issued by representatives of the indigenous Torres Strait Islanders against the state of Australia concerning the sufficiency of the State's climate policy measures. According to the Committee, Australia has not protected the indigenous Torres Strait Islanders against the harmful effects of climate change, thereby violating the International Covenant on Civil and Political Rights. Australia was obligated to pay compensations (Human Rights Committee 2022). In this case, the compensations were mandated due to climate change impacts, not climate policy impacts. Nevertheless, the ruling creates an avenue for new global climate trials and legal proceedings that also focus on compensating climate policy measures to indigenous peoples.

The global justice of food systems often gains little attention in Finnish discourse, despite the global nature of the food market. Questions of global inequalities have gained great attention in the food justice literature, pertaining to issues such as the rights to nourishing food and decent working conditions for all (Tribaldos & Kortetmäki 2022). In practice, forced labour and child labour are common in the food system, working conditions can be hazardous, and the environment is spoiled (Maluf et al. 2022; Goodman & Watts 1997). Action should be taken so that Finnish climate policy accounts for the global impacts of transitions, and assessment protocols are required for this process. Finland's sustainability transformation to a climate-neutral society cannot be based on violating human rights in the global south. On the other hand, sustainability transformation decreases

injustices related to fossil fuel production, for instance. Supply chain regulation, i.e., due diligence regulations concerning human rights and environmental questions placed on enterprises, is necessary in a just society (Lähteenmäki-Uutela et al. 2021b).

#### Observations from the citizen survey: distributive justice

Most respondents to the Finnish Climate Change Panel's citizen survey felt that it is fair to strive to decrease the economic and regional inequalities created by climate change mitigation measures. Progress where mitigation measures increase household costs was generally perceived as unjust. Mitigation measures that increase household costs were the least popular, although over 50 per cent of the respondents considered reasonable cost increases to be fair. The majority believed that ensuring justice for future generations requires Finland to implement more prompt mitigation measures. The vast majority felt that compensating increased costs to low-income households or residents of sparsely populated areas would be fair actions for lessening inequalities. (Vainio et al. 2023.)

#### Observations of stakeholder workshops: distributive justice

The stakeholder workshop focusing on climate policy justice in the transport sector viewed community structure planning and public transport planning as important for supporting sustainable mobility in Finland. The discussions emphasized the just distribution of benefits and costs between generations and the mobility opportunities of all population groups. In relation to sustainable mobility, the discussions brought up the manner in which economic support is distributed through support to low-income groups. Public transport opportunities were also highlighted, such as upholding reasonable ticket prices in both urban and rural regions. Purchase subsidies for electric vehicles were mentioned, as were the human rights questions related to the global production chains of natural resources.

The impacts on regional economy, regional viability, and land use questions concerning the distribution of benefits and disadvantages were significant topics raised during the energy sector workshop. The differing levels of knowledge and skills of individual citizens when applying for and accessing economic support measures was seen as problematic, for example for achieving transformation in heating buildings.

The food sector workshop highlighted the security of supply and the availability of nutritious food at all times. Livelihood realization and even income distribution in the food chain were also considered important factors, especially from the food producer viewpoint. (Appendix 1.)

### 3.2. Recognition justice

Recognition justice accounts for the sociocultural differences of people and groups, their various positions in societies, and the specific needs and vulnerabilities caused by these differences (Williams & Doyon 2019). It deepens our understanding of distributive (Chapter 3.1.) and procedural (Chapter 3.3.) justice and functions as a base for their realization (Schlosberg 2007). For example, when planning climate change adaptation policies, it is important to recognize the differences between sociocultural groups in terms of their adaptation needs and abilities. This allows for assessing whether distributive and procedural justice are realized or whether restorative justice measures are required (Juhola et al. 2022).

Recognition justice aspires to avoid situations where certain sociocultural groups dominate and aspires to advance the rights realization of the most vulnerable groups (Fraser 2000). It acknowledges existing injustices and helps us understand how climate policy measures can challenge current ways of life and cultural models (Kaljonen et al. 2021). Recognition justice is also important when climate policy contributes to creating new cultural models and actions for more sustainable ways of life. Considering recognition justice helps in planning policy measures and mixes that can be used to support various groups in transition (Kaljonen et al. 2022; Tribaldos & Kortetmäki 2022). Table 3 presents the central recognition justice evaluation questions for climate policy.

Attention to recognition justice requires sensitivity and vigilance from policy formulators and evaluators. Existing Finnish impact assessment guidelines offer some tools for the recognition justice dimension. The Guidelines for Impact Assessment in Law Drafting (Valtioneuvosto 2022a) acknowledges that legislation can impact people in various ways and provides examples of groups that must be considered specifically. Obligations are directed at certain groups, and the impacts on these groups must be assessed in light of these obligations. This includes impacts on gender, on children and youths, on the Saami, and on the disabled. The demands for equality and non-discrimination, as per the Finnish Constitution, define the minimum assessment level for recognition justice (see Chapter 2.2). However, based on the literature, the context of the recognition justice dimension goes beyond fundamental and human rights. It also challenges policy planners to assess their own positions in relation to the focal groups of the policy. In-depth qualitative policy assessments and studies investigating sociocultural differences should be used in support of recognition justice.

**Table 3.** Evaluation questions for recognition justice in climate policy.

Evaluation question	Aiding questions
<p><b>RJ1: Are people placed in different positions due to their background, culture, wealth, age, residence, education, or profession in relation to climate policy impacts?</b></p>	<p>How does nationality, age, gender, disability, or illness influence the experienced benefits or disadvantages?</p> <p>How do differences between people in terms of wealth, know-how, education, residence, way of life, or sociocultural background influence experienced benefits or disadvantages?</p> <p>How to increase or decrease the know-how and adaptation ability of different sociocultural groups?</p> <p>How has the sociocultural background of the policy planner or evaluator influenced the formatting and assessment of the measure(s)?</p>
<p><b>RJ2: Do(es) the measure(s) increase/decrease vulnerability?</b></p> <p>This question also relates to evaluation question PJ4</p>	<p>Are new vulnerabilities being created?</p> <p>Are certain groups incurring cumulative vulnerabilities?</p> <p>Can policy mixes be used to decrease existing or anticipated vulnerabilities?</p>
<p><b>RJ3: Do(es) the measure(s) improve/weaken the realization of the fundamental and human rights of the Saami? Do(es) the measure(s) improve/weaken their possibilities for maintaining and developing their culture?</b></p> <p>This question also relates to evaluation question PJ4</p>	<p>Has the current status of Saami culture and the factors affecting it been considered?</p> <p>Have the impacts on the possibilities of the Saami to maintain their culture in the future been considered?</p> <p>Do(es) measure(s) consider international human rights practices from the indigenous viewpoint?</p> <p>How can potential disadvantages be minimized or compensated?</p>
<p><b>RJ4: Does implementation and communication of the measure(s) consider various sociocultural conditions and values related to the matter?</b></p>	<p>Does implementation recognize and respect various backgrounds and sociocultural values?</p> <p>Is communication wide-ranging and does it recognize and respect various backgrounds and sociocultural values?</p> <p>Is the right to one's language recognized in communication?</p> <p>Is guidance and support available for people from various backgrounds?</p>
<p><b>RJ5: Is/are the measure(s) ensured to be non-discriminatory based on e.g., nationality, age, gender, disability, or illness?</b></p>	<p>How have the impacts of the measures been assessed regarding age, nationality, gender, various disability groups or individuals with illnesses? What has been done to reduce these impacts?</p>

*RJ1: Are people placed in different positions due to their background, culture, wealth, age, residence, education, or profession in relation to climate policy impacts?*

Recognition justice deepens the examination of distributive justice and helps to understand people from different sociocultural backgrounds, their readiness, and their specific needs resulting from dissimilarities. Acknowledging existing injustices and the various positions of people in relation to policy measures is important for sociocultural recognition. Recognition justice helps in understanding how climate policy measures can challenge existing ways of life and cultural models. It concurrently helps in searching for solutions to these challenges. Recognition justice considers how various groups within society can have different know-how and readiness to meet the requirements set by climate policy. Policy measure impact evaluations must examine whether a measure promotes or weakens the intellectual readiness of people. Which people or groups require possible additional knowledge or education must also be determined, along with how these people can be contacted. Previous research has shown that increasing technological needs, for example, are a challenge particularly to low-income households and the elderly (Xu & Chen 2019).

Climate policy justice evaluation is not equivalent to people's perceptions of climate policy. However, considering recognition justice most likely increases people's perceptions of justice and the acceptability of climate policy. Recognizing various sociocultural backgrounds helps in tailoring better climate policy measures.

*RJ2: Do(es) the measure(s) increase/decrease vulnerability?*

Defining and identifying vulnerability is central to recognition justice. Vulnerability in climate policy can manifest as cumulative climate policy impacts, as unequal opportunities to react to climate policy measures, or as unequal opportunities to be heard during decision-making. Vulnerability is the joint effect of exposure, sensitivity, and adaptation capacity (Adger et al. 2006). Factors affecting individual vulnerability have generally been defined based on personal characteristics or socioeconomic position (Otto et al. 2017; Swim & Bloodhart 2018; Markkanen & Anger-Kraavi 2019; Kortetmäki & Järvelä 2021). However, a singular factor increasing vulnerability does not necessarily make a person vulnerable to climate policy measures. Rather, vulnerability-causing factors have complicated interrelationships, and each person may perceive vulnerability differently (Kortetmäki & Järvelä 2021; Juhola et al. 2022). Personal characteristics and societal positions affect an individual's opportunities of reacting (Otto et al. 2017). As vulnerability is situation dependent, it is impossible to define all vulnerability factors related to climate policy. However, vulnerability matrices can be used during vulnerability assessments. These are used to recognize processes that increase vulnerability and vulnerability factors that are born from individual societal positions (e.g., Kortetmäki & Järvelä 2021).

When assessing policy measures, it is important to evaluate whether policy measure impacts accumulate onto certain groups with specific needs and how these impacts can be mitigated by acknowledging these needs. Recognition justice deepens distributive justice assessments when assessing vulnerabilities. For example, if concurrent price increases in energy and food render certain socioeconomic groups more vulnerable, recognizing their specific positions may help in targeting climate policy measures, as part of policy mixes, that are suitable for their life situations. Strengthening recognition justice as part of policy formulation and evaluation requires participatory opportunities aimed specifically at vulnerable groups (see more Chapter 3.3., question PJ4).

Existing vulnerabilities can also be actively reduced through climate policy. This is the case in situations where lifestyle changes justifiable due to climate change also help to increase individual's quality of life, well-being, and health (Rekola et al. 2019), thereby decreasing vulnerability. Several climate policy measures affecting mobility and food consumption, in particular, have positive effects on health (Kaljonen et al. 2022; Lyytimäki et al. 2022).

*RJ3: Do(es) the measure(s) improve/weaken the realization of the fundamental and human rights of the Saami? Do(es) the measure(s) improve/weaken their possibilities for maintaining and developing their culture?*

Indigenous people Saami are a specific group requiring recognition in terms of the negative impacts caused by climate change and climate measures in Finland (Jaakkola et al. 2018; Näkkäläjärvi et al. 2020). The Saami cultural form and Saami languages are endangered (Jaakkola et al. 2018; Näkkäläjärvi et al. 2020). The Saami cultural form include traditional Saami livelihoods: reindeer herding, fishing, hunting, gathering, and the Saami handicraft tradition known as duodji (HE 303/1994 vp). The impacts on these traditional livelihoods must be evaluated while concurrently considering the impacts to language. When implementing climate policy measures, it is important to note the current status of the Saami culture and the factors that have and are affecting it, such as competing land use, the small population size of the Saami people, emigration from the home region, biodiversity loss, and societal transformation processes. When assessing the cultural impacts of climate policy measures, we must also be able to assess the adaptation boundaries of Saami culture in relation to climate policy, i.e., how much the culture can adapt without it disappearing or assimilating. Climate policy and adaptation measures may lead to a cultural change process and to the disappearance of the culture and traditions (Näkkäläjärvi et al. 2022). International human rights practices have brought forth central criteria that can be used to evaluate the impacts on the fundamental and human rights of the Saami. The UN Human Rights Committee has outlined that the Saami culture remain viable only by upkeeping the profitability of their traditional livelihoods (*Ilmari Länsman et al. v. Finland*, 1992). Additionally, when assessing the impacts of a pending project on the opportunities of practicing Saami culture, the impacts of preceding actions must also be cumulatively considered (*Äärelä et al. v. Finland*, 1997). The criteria formulated by the UN Human Rights Committee can be used when evaluating the justice of climate policy on the Saami.

Saami communities are concerned about the broadscale environmental and cultural impacts caused by proposed or implemented climate change mitigation and adaptation measures. These impacts link with other developments that are already weakening the Saami culture (e.g., tourism and construction), which is resulting in cumulative vulnerability of Saami livelihoods and culture. Wind energy production has increased substantially in the Saami home regions in Sweden and Norway in particular. Saami communities have brought forth the concept of green colonialism, which equates to utilizing the natural resources and environment of the Saami with the objective of mitigating climate change (e.g., Normann 2019). Several mines are located within the Sápmi region which crosses several national borders, and corporations are searching for more minable minerals within this area. These minerals are needed for progressing climate change mitigation measures, such as for the batteries of electrical vehicles and other high-energy devices, along with other digital devices such as computers and consumer electronics. On the other hand, the alternative locations of mines are often based in impoverished and conflict-sensitive areas (see DJ6), which is why justice evaluations require balanced consideration of various factors.

Currently, the financial support provided to the Saami culture in Finland focuses on supporting institutions, education, arts, and services (Näkkäläjärvi & Jaakkola 2017). The rights of indigenous peoples in Finland must be considered through various levels when assessing climate policy measures: 1) the joint impacts of Finland's national climate policy measures and the climate policy measures in Lapland region and of the municipalities in the Saami home region, 2) collaboration in the Arctic and in the Barents region and the impacts of climate policy on this collaboration, 3) assessing the impacts of climate policy measures reaching across national borders, 4) funding for international climate policy measures and Finland's foreign policy, and the impacts of these on the Saami on other indigenous peoples, 5) the impacts of EU climate policy, and 6) the UN.

Acknowledging the rights of the Saami also links to procedural justice (Chapter 3.3.). Improving the position of the Saami in Finland's climate policymaking and founding a Saami Climate Council will help in planning and implementing just mitigation and adaptation measures.



*RJ4: Does implementation and communication of the measure(s) consider various sociocultural conditions and values related to the matter?*

Recognition justice requires implementation and communication that is respectful of sociocultural values. Acknowledging the different levels of information or support required by individuals, for example when applying for financial aid, is imperative to the implementation of recognition justice. For example, persons with different know-how and persons from various language and cultural backgrounds require guidance when applying for support measures or permits. Paralance, expression, and communication require special attention from the recognition viewpoint. This is especially important when dealing with vulnerable groups. Providing various sociocultural groups with a voice and the right to speak are the best ways to respect these groups. Recognition justice is therefore an important part of the realization of distributive justice (Chapter 3.3.).

*RJ5: Is/are the measure(s) ensured to be non-discriminatory based on e.g., nationality, age, gender, disability, or illness?*

Equality and non-discrimination are recognized in the Finnish Constitution, according to which “everyone is equal before the law” (6.1 §). Without due cause, no one can be placed in a separate position on grounds of their “sex, age, origin, language, religion, conviction, opinion, health, disability, or other reason that concerns his or her person” (6.2 §). “Children shall be treated equally and as individuals and they shall be allowed to influence matters pertaining to themselves to a degree corresponding to their level of development” (6.3 §). The Act on Equality between Women and Men (609/1986) decrees on gender equality. The concept of equality is connected to gender equality in the Finnish judicial system, while non-discrimination is a broader concept containing discrimination on any grounds. An impact recognition check list is attached to the guidelines for legislation impact assessments (Valtioneuvosto 2022a). The list includes a question on non-discrimination and equality: Does the proposition affect various groups in different ways, for example non-discrimination, gender equality, children and youths, the indigenous Saami, disabled persons, language rights, and other groups?

### Observations from stakeholder workshops: recognition justice

Groups requiring special consideration emerged as a topic in the transport sector workshop when discussing the climate policy measures of the Finnish transport sector. The mobility of low-income consumers, children, the elderly, and the disabled, regional differences in commuting distances and in accessing services, and future generations as beneficiaries and sufferers of climate change were mentioned specifically. The workshop was conducted before the energy crisis of 2022, and even at the time, attendants considered it important that actors requiring help are supported by society when transitioning to low-emission mobility.

Population groups that require societal support during the energy transition were also recognized in the energy workshop. Children and youths were mentioned, as they usually cannot influence the heating methods used in their homes. In this case, policy measures are the only way of influencing the situation.

The question of gender emerged in the transport sector workshop, as the energy sector is male dominant, which may lead to great changes in the working conditions of individuals identifying themselves as male. The various socioeconomic backgrounds and the opportunities of searching and applying for support services in a transition were also brought up. Regional differences, the rights of the indigenous Saami to their culture and livelihoods, and the intrinsic value of nature were seen as significant aspects that must be considered.

In addition to the abovementioned factors, the food sector workshop discussed recognizing the work of farmers as part of food production and security of supply. (Appendix 1.)

### Observations of the adaptation plan assessments: recognition justice

Recognition justice was hardly mentioned in the adaptation plans of various countries and cities (Juhola et al. 2022). Existing climate change adaptation plan processes should be examined more thoroughly from the recognition justice viewpoint. More in-depth consideration of this viewpoint may require changes to planning processes. For example, Canada's adaptation plan could be an interesting example to study further, according to the analysis. A broader survey of existing adaptation plans could bring out other interesting examples that better account for justice during planning process development.

### 3.3. Procedural justice

Procedural justice handles the fairness of decision-making processes. It is an important part of all public decision-making. Integral aspects include the equitability of participation opportunities, acknowledging those in vulnerable or marginal positions, and the transparency and impartiality of decision-making and decision-maker accountability to citizens and residents. Fair policy includes the right to appeal decisions. (Kivimaa et al. 2021.) Procedural justice also requires supporting participant capabilities and capacities as part of participatory actions (McCauley & Heffron 2018; Goddard & Farrelly 2018). Procedural justice can be furthered during various phases of climate policy preparation, implementation, and follow-up. Hearings are traditionally used in Finland to enable citizen participation. However, hearings are typically arranged only after policy alternatives have already been chosen, their justifications have been prepared through official duties, and impact assessments have been prepared or are in the process of preparation. Procedural justice should nevertheless be evaluated throughout the entire decision-making process. This can be done by evaluating which actual restrictions are in place for participation at various decision-making levels and phases and how these restrictions could be dismantled. Table 4 sums the central procedural justice evaluation questions for examining climate policy.

Procedural justice derives from human and fundamental rights, which were presented in more detail in Chapter 2.2. The Aarhus Convention and the Finnish Constitution decree on access to information, participation, and appealing. According to legislative proposal HE 27/2022 vp for Finland's new Climate Act, the procedural aspects of climate policy justice require preparing plans and measures in a fair and transparent manner and realizing fair procedures through consultations and hearings. Broad impact assessments that acknowledge various population segments can also be used to promote climate policy measure justice according to legislation.

Existing impact assessment guidelines focus on the impacts of planned policy measures, while procedural impacts are not commonly evaluated. However, due to the obligations formed by the new Climate Act, it may also be important for policy formulators to evaluate the justice of chosen policy procedures more broadly than before. The evaluation questions listed below are integral for public decision-making justice. Viewpoints related particularly to climate policy are visible in, for example, the need to acknowledge certain vulnerable groups. The viewpoint of future generations is highlighted due to the intergenerational nature of climate change. It is important to recognize the rights of the Saami and the rights of individuals that are traditionally outside of decision-making. The academic literature on sustainability transitions and just transitions emphasizes the importance of novel marginal actors and actors that further so-called niche solutions (e.g., Ghosh et al. 2021a,b).

**Table 4.** Evaluation questions for procedural justice in climate policy.

Evaluation question	Aiding questions
<p><b>PJ1: Do citizens have equal opportunities to participate in policy formulation?</b></p>	<p>Are participatory opportunities and policy options communicated in an open, accessible, and understandable manner?</p> <p>Is the process for selecting policy alternatives transparent? Do citizens have opportunities to bring policy alternatives into the discussions?</p> <p>Is it possible to react to policy suggestions/consultation requests/hearings within the given time frames and resources?</p> <p>Has the impact assessment heard both people that will be affected directly and people that will be affected indirectly? How will these groups be heard during further policy formulation and decision-making? Will raised concerns be addressed?</p> <p>Are there constraints on participation? How do existing resources, e.g., education or residence, affect participation opportunities? Has the removal of constraints been attempted and have equal participation opportunities been furthered?</p> <p>Are climate policy and decisions communicated through various value systems?</p>
<p><b>PJ2: Is decision-making formulated in a fact-based manner?</b></p>	<p>What kind of information has been used, and how? How has scientific knowledge been utilized? Who has produced the knowledge? Is it readily available, and has the knowledge base been compiled openly and according to good scientific protocol?</p> <p>Are impact assessments comprehensive and transparent? Have impact assessments affected the proposed measure(s)?</p> <p>Is there communication concerning the value choices in the background of decisions/alternatives?</p>
<p><b>PJ3: Are citizens able to hold decision-makers accountable for formed decisions?</b></p>	<p>Is information on policy measure(s)' implementation and impacts available for everyone in an open and accessible manner?</p> <p>Is information available on the conflicting or cumulative impacts of various measures? What about information concerning policy inconsistencies?</p>

	Are opportunities for appeals communicated sufficiently and accessibly? Is appealing guaranteed?
<p><b>PJ4: Does policy formulation account for the differences between sociocultural values and positions of people and groups, and their specific needs and vulnerabilities?</b></p> <p>This question also relates to questions RJ2 and RJ3.</p>	<p>How have vulnerable people or language groups been acknowledged during the procedures?</p> <p>Do residents of different municipalities and regional councils have equal opportunities of being represented and heard?</p> <p>When and how have various population groups been heard/participated? Who has represented these groups?</p> <p>How have the needs and concerns that emerged during the hearings/participation been considered?</p> <p>Have obstacles hindering participation been dismantled? Has citizen participation been actively furthered, and also the participation of groups that are usually marginal in policy formulation?</p>
<p><b>PJ5: Has participation of the Saami been secured in climate policy decision-making concerning them?</b></p> <p>This question also relates to questions RJ2 and RJ3</p>	<p>Has free, prior and informed consent been attempted to obtain in advance?</p> <p>How have the Saami people's proposals been considered in climate policy measures?</p> <p>Have climate policy measures considered the scientific knowledge base concerning climate change impacts on Saami culture?</p>
<p><b>PJ6: How have the viewpoints of youths and future generations (youths, children, unborn generations) been considered in the formulation?</b></p>	<p>How and at what stage have youths and children been participated? Who represents future generations?</p> <p>What importance has been granted to children, youths, and future generations?</p>

*PJ1: Do citizens have equal opportunities to participate in formulation?*

Citizen opportunities for formulating actual policy alternatives and solutions is usually limited to influence through representative democracy. On the other hand, these opportunities are guaranteed to citizens through legislative rights connected to official preparation. The principle of openness is in use in Finland, according to which all official documents are public, unless otherwise decreed. All citizens have the right to obtain information provided in public documents. Open access to impartial information is a key factor in furthering procedural justice (Williams & Doyon 2019). However, decision-making may base on knowledge that is not in public documents and is therefore not conveyed to citizens. For example, it is not customary in Finland for legislative proposals to explain how the policy alternatives that will be furthered have been chosen or who has had the opportunity to impact their selection. Procedural justice could be furthered by strengthening the opportunities of a civil society to create solutions and procedures for mitigating and adapting to climate change (Temper et al. 2018).

Once a policy proposal has been given by the administration, it is followed by administrative phases during which procedural justice can be evaluated. Hearings are used to further the procedural justice of legislative

processes in Finland. However, a hearing does not guarantee the realization of procedural justice. Rather, it is important to examine how the hearing has been carried out, at what phase of the policy process, and what actual limitations are in place restricting who is heard. It is central to examine how the views gathered during the hearings and consultation procedures are considered and how openly the process is communicated. It is also imperative to transparently analyse the viewpoints of various parties and to assess the weights of these viewpoints in relation to each other (Li & Wagenaar 2019).

Impact assessment is an element of climate policymaking in Finland. Evaluating the procedural justice of impact assessments may, for example, relate to who carries out the assessment and who are asked to provide opinions of the impacts. Impact assessments are often outsourced to consultancies or research institutions. Therefore, the practices of these actors outside of the administration also define how procedural justice is realized during an impact assessment.

*PJ2: Is decision-making formulated in a fact-based manner?*

According to the Finnish Constitution “Democracy entails the right of the individual to participate in and influence the development of society and his or her living conditions” (2 §). The Futures Review of the Ministries 2022 (Valtioneuvosto 2022) states that the openness of legislative drafting is a basis for citizen trust. Open, participatory, and interactive legislative drafting, which promotes the principles of democracy, together with a strong knowledge base used in legislative formulation strengthen citizen trust in democracy and the judicial system. Participation opportunities in decision-making must therefore be guaranteed to everyone, and the use of scientific knowledge based on the principles of responsible conduct in research must be ensured as the base for decision-making. A report by the Finnish Innovation Fund Sitra states that one of the most challenging questions of our times is connected to the balance between knowledge-based policy and value-based policy (Leppänen et al. 2020). From the justice viewpoint, it is notable that these two differing, yet complementary viewpoints are made visible while conducting climate policy. Finland’s Climate Act requires that both the Finnish Climate Change Panel and the Saami Climate Council are asked to provide statements for climate policy plans. This aims to strengthen the knowledge base of climate policy. The Strategic Research Council is another measure for strengthening this knowledge base, as it is used to fund multidisciplinary high-quality research that can be utilized in concrete policymaking. However, development needs have been recognized concerning how the knowledge obtained through the Strategic Research Council is utilized (Kivistö et al. 2022).

*PJ3: Are citizens able to hold decision-makers accountable for formed decisions?*

Procedural justice evaluation does not end with policy preparation and decision-making. After decision-making, procedural justice can be evaluated by examining the opportunities available for monitoring implemented policies and their impacts and the opportunities for appealing decisions. Who can appeal and on what grounds are central questions concerning the appeal process. Procedural justice can also be furthered by ensuring the openness of policy monitoring and the accessibility of follow-up information. Knowledge producers play a great role in ensuring that monitoring enables the truthful assessment of policy impacts, success, and cross effects. A report by the Finnish Parliament’s Audit Committee (Keinänen & Pajuoja 2020) recognized that the systematic monitoring of post-legislative impacts is missing in Finland.

*PJ4: Does formulation account for the differences between sociocultural values and positions of people and groups, and their specific needs and vulnerabilities?*

Considering the uneven societal distribution of opportunities for influencing decision-making is important when evaluating procedural justice. Special attention must be given to considering viewpoints that do not dominate in society (Shi et al. 2016). For example, the Saami and future generations are such groups in Finland, especially

at the core of climate policy, but also other actors that do not traditionally wield power belong to this group. Recognizing that a socioeconomically relatively homogenous group often performs policy preparations is important during official preparation and evaluations. To ensure that procedural and recognition justice are realized in climate policy preparation, measures are needed that guarantee the consideration of alternative viewpoints. For example, research literature shows that the viewpoints of those belonging to the so-called power elite and of those furthering significant forms of industry are typically heard during energy policy preparations (Ruostetsaari 2010, 2017). However, energy justice requires lifting citizens into more active roles in climate and energy policy preparation (Szulecki 2018). Additionally, the literature on sustainability transformation has shown that a sustainability transformation requires the inclusion and better consideration of novel actors during public policy preparation (e.g., Ghosh et al. 2021a,b).

The public's opportunities for presenting opinions on draft plans is not limited to written format by Finland's new Climate Act. According to legislative proposal HE 27/2022, this provides more non-discriminatory opportunities for children and disabled persons, for example, to present their opinions on draft plans. The participation opportunities of the elderly are also improved. The Local Government Act of Finland has separate regulations for youth councils, senior citizens councils, and disability councils. These councils aim to include the voices of their representative groups to municipal-level decision-making.

*PJ5: Has participation of the Saami been secured in climate policy decision-making concerning them?*

The Finnish Act on the Saami Parliament requires that authorities must hear and negotiate with the Saami parliament on significant measures that influence the status of Saami and Saami home region, (Act on the Sámi Parliament 9 §, 974/1995). The Ministry of Justice has prepared guidelines for hearing the Sámi Parliament (2/551/2017). Guideline criteria can be used to determine how a hearing is being realized. The Skolt Act requires that the Skolt Saami Village Assembly to be heard in matters that specifically impact the living conditions of the Skolt Saami (Kolttalaki 253/1995, in Finnish). Legislation creates the prerequisites for procedures used to solve potential conflict situations created by climate policy. In addition to hearing the Skolt Saami Village Assembly and the Saami Parliament, the Reindeer Husbandry Act mandates that the reindeer herding cooperatives must be heard especially in land use -related schemes on state-owned land and water areas. The Akwé: Kon guidelines of the Convention on Biological Diversity (Ympäristöhallinnon ohjeita 1/2011) are intended to be used in the Saami home region in the assessment of the cultural, environmental and social impacts of projects and plans that may affect Saami culture, livelihoods and cultural heritage, and the procedure is also applicable for assessing the impact of climate change adaptation and mitigation activities on Saami culture. Legislation create prerequisites for hearings and participation, but the following challenges have emerged: 1) the juxtaposition between Saami interests and other economic interests, 2) lack of actual participation because of available resources and governance time frames, and 3) hearings being limited to mere formalities. The UN Declaration on the Rights of Indigenous Peoples provides guidelines for hearing indigenous peoples in international climate measures. In Finland, for cross-border projects, the obligations of the Espoo Convention on environmental impact assessment must also be taken into account. Effective participation of indigenous communities must be secured during climate policy preparation and implementation follow-up, to ensure that climate policy objectives are realized and that they can be elaborated if significant injustices emerge. A report by the Finnish Government on a national adaptation plan reaching to 2030 (Valtioneuvosto 2022) proposes establishing a climate change adaptation plan for the Saami, which would support the participation of Saami people and just climate policy. The Saami language Act obligates that authorities must inform and provide services in Saami language. The Saami language denotes the languages of Inari Saami, Skolt Saami, and North Saami (1086/2003).

The objective of Finland's Climate Act is to "contribute to ensuring the prerequisites for the Saami people to maintain and develop their own language and culture" (2.3 §). Sami Parliament and Skolt Saami Village Assembly must be requested to submit their opinions on the draft climate policy plans prepared under the Climate Act. Authorities must also negotiate with the Saami parliament regarding climate policy measures that

impact Saami culture (SL § 9). Under the Climate Change Act, an independent Saami Climate Council is established, whose mission is, among other things, to raise awareness of the impacts of climate change and related actions on Saami culture for the planning of climate measures. The Council include representatives from the scientific community and holders of Saami traditional knowledge. The Saami Climate Council will develop participation of both the scientific community and the Saami community in planning of climate policy. This will improve the justice of climate policy measures and create prerequisites for research and funding of research projects that can respond to the challenges posed by climate change in Saami culture and create ways for culturally sustainable adaptation.

*PJ6: How have the viewpoints of youths and future generations (youths, children, unborn generations) been considered in the policy formulation?*

A key objective of climate policy is to mitigate climate change and adapt to it in a manner that sustains the opportunities for life of future generations (e.g., the Paris Agreement). Considering the realization of youths', children's, and future generations' rights is therefore important (McCauley & Heffron 2018). For example, the legal action taken by Portuguese youths in the European Court of Human Rights (*Duarte Agostinho and Others v. Portugal and 32 Other States* (39371/20)) demands that the states must secure, among others, the right to life. The citizen survey conducted by the Finnish Climate Change Panel (Vainio et al. 2023) also shows that 60 per cent of respondents believe that justice towards future generations will require more rapid and effective climate change mitigation measures than currently in place. This means hearing and participating children and youths during climate plan preparations. A spokesperson is also needed to represent currently unborn generations in climate policy preparations.

#### Observations of stakeholder workshops and the citizen survey: procedural justice

Procedural justice was seen as a significant means to increase the justice of climate policy in the stakeholder workshops of the Climate Policy Justice project. All stakeholder segments wanted to accentuate knowledge-based decision-making in connection with procedural justice. The need to understand the broader impacts of policy measures was highlighted in addition to knowledge being used comprehensively and justly in decision-making. Citizen hearings using various means was considered useful for bringing forth different viewpoints, despite this being a laborious measure. Participation of children and youths was considered especially important, and utilizing the schooling system was considered an option for this. (Appendix 1)

Citizen survey respondents had polarized perceptions concerning the realization of procedural justice in Finnish climate policy. At most, half of the respondents believed in its current actualization. The educational background of respondents was connected to experienced participation opportunities: more highly educated respondents ranked their participation opportunities to be better compared with how other respondents ranked their opportunities. Finns participate rather poorly in climate policy: nearly 40 per cent of respondents had not participated at all. Citizen participation is decreased by weak understanding of climate policy. According to a knowledge indicator carried out as part of the survey, this understanding appears to be comparatively low. Climate policy-related measures and concepts were also understood relatively poorly. Half of the citizen survey respondents believed that participation through electronic and traditional means and through opinion-mapping surveys increase non-discrimination. One-third of respondents considered citizen panels to be a measure that increases non-discrimination. (Vainio et al. 2023.)



#### 4. REFLECTION ON CLIMATE POLICY CONTRADICTIONS, AND OTHER CONSIDERATIONS

Contradictions can be recognized between the justice impacts. Finding climate policy mixes that do not produce any injustices may be difficult. On the other hand, many other public policies also produce justice impacts, so this is not a distinctive feature of climate policy. Evaluating and examining policy mixes is therefore important: what kind of climate policy is the most just when considering the justice dimensions (distributive, recognition, and procedural justice), spatial levels from local to global, the temporal dimension, and other societal, historical, and political contexts.

Understanding that justice is not only a question of money or compensation is also essential. Rather, both climate change impacts and climate policy fall on the established ways of life and habits of people. Climate change mitigation and adaptation and a broader sustainability transformation influence society in a broader manner than economic impacts, producing both benefits and disadvantages. People have different adaptation capabilities for change, which emphasizes the importance of schools and education in furthering a just transition. Both climate change and climate policy can induce fears, uncertainties, and misunderstandings, and these can be prevented through correctly directed education and communication. The novel opportunities created by climate policy should also be emphasized to as wide a range of people as possible. A recent example of a misunderstanding emerging in Finnish public debate is the assumed role of climate policy as a cause of high energy prices. In reality, these price increases are the outcome of the Russian invasion of Ukraine.

A work life transformation is a significant subcategory of climate policy justice impacts. Research literature has broadly dealt with the impacts that phasing-out fossil fuel industry cause, especially in certain regions (Abraham 2017; MacNeil & Beauman 2022). More in-depth examinations are required for how old employment fields are changing and how work life in general is changing as part of the transition to a fossil-free society (e.g., Moilanen & Alasoini 2022). Climate policy has accelerated, among others, the green hydrogen economy and various services connected to mobility and energy efficiency. Climate policy impacts on work life accentuate the meaning of new skills and learning, and the importance of education and reskilling. In addition to these, climate change itself influences work life and work safety, and sets new demands on the climate change mitigation measures aimed at work life. Global justice is also part of the impacts on work life. For example, how does the transition from a fossil economy to a mineral economy influence working conditions globally and how can the injustices caused in different mining industry locations be best prevented by developing international regulation?

In the future, recognition justice will be highlighted more strongly during climate policy implementation. Climate change and climate policy are affecting all citizens at an increasing level. Recognizing those people who are in particularly vulnerable positions or who are experiencing unreasonably large negative impacts is therefore important. Allocating compensations should focus particularly on these groups. As climate policy measures are increasingly directly affecting people's livelihoods and lives, the resistance towards climate policy measures may concurrently grow. In this case, policies observing various sociocultural factors are emphasized, as is the meaning of procedural justice.

Climate change has significant impacts on public health, and these must be recognized to carry out just climate policy. Adapting to climate change can decrease the health disadvantages caused by climate change -induced environmental impacts. However, adaptation measures can also cause negative well-being impacts, for example through changes to livelihoods and culture. Climate change mitigation can bring about health advantages. Climate policy can have broad health and well-being benefits that are either beneficial or detrimental. Climate policy should therefore be preceded with comprehensive health and well-being impact assessments.

For the Saami, climate change and adapting to it are human rights questions, a process of cultural change, and, ultimately, it is a question of the future of culture. Just climate policy can create prerequisites for culturally

sustainable climate change adaptation for the Saami. This requires considering the traditions of Saami, the cumulative effects of various factors, and historical legacies. It also necessitates broad-scale impact assessments in relation to living conditions of Saami, and their health and well-being, to the state of biodiversity, and to intergenerationality. Assessing the justice of climate policy as a continuous process also requires taking into account the Saami people's conception of justice and weighing the different interests in relation to the different dimensions of justice. A central development need is to begin compiling a Saami climate change adaptation plan, which includes climate justice evaluation as a key element. Just climate policy requires an adequate knowledge base. A focal development need for just climate policy is initiating an impactful and systematic follow-up for monitoring climate change impacts and climate policy impacts on Saami culture, as collaboration between the scientific community and the Saami community.

Defining some sort of minimum criteria for justice could act as a solution in integrating various interests (Tribaldos & Kortetmäki 2022). Earlier literature recognizes compromises to be essential for reaching justice, irrespective that their recognition and/or existence is not straightforward (Sovacool et al. 2017). For example, what is the largest possible disadvantage or injustice that can still be accepted in relation to local wind power construction? Is it possible to define a limit, the crossing of which is not permissible? Fundamental and human rights offer a certain minimum level, but as previously noted (Chapter 2.2, Kivimaa et al. 2021), fundamental rights may need to be weighed against each other. On the other hand, a justice evaluation necessitates assessing impacts at a broader scale than fundamental rights.

A justice examination of actor opportunities is a key aspect in the dialogue related to a just transition (e.g., Sheller 2018; Kaljonen et al. 2022). For example, this relates to opportunities in switching to more sustainable transport, in changing the way homes are heated, or in increasing the share of vegetables in diets. On the other hand, it also relates to the opportunities that various businesses have for passing permit processes and for being able to place their products on the markets. The food discussions and transport workshops (see Appendix 1) brought up the various opportunities that people have for changing their modes of action and for utilizing new technology.

Restorative justice can be used to decrease unevenly distributed disadvantages, but even this is not always enough. Emphasizing climate policy justice in the food sector workshops on the Just Food project led to participants trying to avoid everything that appeared to be unjust. This made contemplating the policy measures difficult (see Appendix 1). Various soft policy measures, such as information steering and focusing on research and innovation, were considered just measures. On the other hand, stricter regulation or economic sanctions on polluting activities were often considered unjust. However, too weak climate policy is unjust from the intergenerational or global viewpoint. Regulation is therefore necessary in climate policy. Various restorative policy measures may be a solution to implementing necessary regulation and economic steering, as these measures can be used to mitigate the unjust impacts of climate policy (Green & Gambhir 2020). These are required for actualizing regulations and economic guidance required for climate change. One identified challenge in climate policy is related to those people and groups that do not support emission-decreasing policies because they also may not necessarily accept restorative policy measures, even if they perceive themselves to experience disadvantages from climate policy implementation (Cha 2020; Huttunen et al. 2022). The possibilities of restorative justice to function as a mediator of value conflicts may therefore be finite.

How justly people believe they are being treated in climate policy will fundamentally impact how they accept climate measures and, ultimately, how well we succeed in mitigating and adapting to climate change (Kivimaa et al. 2021). Justice perceived by individuals can differ from justice evaluated at the societal level. Perceived justice should therefore not be used as the sole indicator of realized justice (Tribaldos & Kortetmäki 2022). Nevertheless, examining the justice perceived by citizens and residents is important. Decreasing perceived injustices can create better understanding of and acceptance for climate policy.

Citizen- and resident-perceived climate policy justice can indicate various things. A citizen may perceive decision-making, decision-makers, and the values of decisions to be similar to or different from their own values (Kitt et al. 2021). This changes their perceptions of justice. Therefore, climate policy decisions should be communicated pluralistically in view of various value bases (Day et al. 2014). Perceived justice is also influenced by individual knowledge and skills and how adequate levels of time and resources individuals have for participating and influencing policymaking (procedural justice). Perceived justice is also impacted by how well people consider various aspects to have been communicated and whether they consider their participation to have been influential or not. In part, this is supported by the results of the Finnish Climate Change Panel's citizen survey results (Vainio et al. 2023). Citizen and resident perceptions are linked to their acceptance of climate policy decisions, to better compliance with these decisions, and to their perceived well-being (Clayton 2018; Siegrist et al. 2012). Perceptions of justice can also be influenced through communication and education (by developing individuals' readiness and capabilities to change), which intertwine with procedural justice. Additionally, social and employment policy measures can be used to partially mitigate perceived injustices.

## 5. SUMMARY AND CONCLUSIONS

The goal of climate policy is to mitigate climate change and adapt to climate change impacts. These measures are used to further global and intergenerational justice. Respectively, failing to mitigate or adapt to climate change causes injustices. This is a central basis when evaluating the justice impacts of climate policy.

In the best scenario, climate policy can be used to remove existing injustices, for example ones incurred through the use and production of fossil fuels. Climate measures can improve local or global justice, for example by decreasing the environmental problems caused by a polluting industry or through other actions or by increasing health through dietary and mobility changes. Climate policy can also create new livelihoods, for example in areas suffering from population drain.

Climate policy justice evaluation is difficult due to its multidimensional impacts, and value-based decisions between the justice impacts must be made in conflicting circumstances – occasionally even between global and local justice. Following ethical and open modes of operation are important when making value-based decisions. Questions steering the evaluation of justice have been formulated to support and open this debate. Knowledge-based and ethically conducted, open decision-making is key to conducting just climate policy.

Fundamental and human rights legislation offer a minimum level for the justice of Finnish climate policy. Current and future generations have the right to life and health, and these are legal justifications for implementing climate measures. The adequacy of minimum income is extensively linked to the fundamental rights guaranteed by the Finnish Constitution: nutrition, electricity, heating, and mobility are accessible for the poor living in remote regions if minimum income levels are sufficient. Therefore, climate policy alone cannot solve justice questions. Rather, policy mixes transcending other sectors and administrative branches must be considered. However, the justice impacts of climate policy in Finland must be evaluated at a wider scale than the minimum level founded by fundamental and human rights.

Impact assessment guidelines for evaluating Finnish legislation provide the opportunity to recognize certain justice impacts. However, evaluating climate policy justice may require broadening the horizon. Justice can be approached in a more systematic manner than previously when utilizing the justice dimensions and the justice evaluation questions formed from these dimensions.

The justice dimensions (distributive, recognition, and distributive justice) intertwine with each other and require acknowledging each other. When evaluating justice impacts, it may be important to return from one dimension to another as required. Along with these, it is important that an evaluation also deals with the scales of impacts

and impact chains, ranging from local to global; the time frame, from the short term to long-term impacts; and significance (for example, does a benefit or disadvantage impact a large group of people or is the impact affecting a certain group unreasonably heavily). Generally speaking, it is more sensible to examine justice impacts through the joint impacts of policy mixes, and even transcending over sectors, rather than evaluating the impacts of individual measures. Because of the intertwined nature of various sectors, furthering justice and a fair transition require coordination transcending over administrative branches and aspiring for policy coherence.

Recognition justice in particular challenges Finnish climate policy formulators and evaluators to consider justice impacts more in-depth. Current positions of power and gained benefits, the role of minorities, and, among others, the rights of unborn generations and the Saami are all aspects requiring attention. Through recognition justice, we can perceive procedural phases that can be improved, for example to enable the participation of the abovementioned groups. Recognition justice also recognizes that not everyone suffers or benefits from climate change in equal manner, and the most vulnerable groups, such as children and youths, indigenous peoples, and low-income individuals, need specific support, help, and compensation.

Climate policy justice evaluations must also assess cumulative impacts and vulnerabilities. Vulnerable groups are often the same in different sectors, for example impoverished persons, who are often affected by concurrent price increases from several directions. In the future, we need more specific analyses of what other vulnerable groups are included in recognition justice in the context of Finnish climate policy (e.g., due to illness, gender, language, ethnic background, or education background) and how to further the realization of recognition justice.

The global dimension of climate policy emphasizes the equal human rights of everyone. This dimension has been emphasized, for example, through the locality and local impacts caused by mining activities for minerals and metals needed in energy and transport transitions. In this case, it is important to note that similar justice questions relate to the acquisition of fossil fuels, and these questions should be resolved across sectors.

Solving justice questions is complex. Research transcending scientific boundaries is important for understanding and furthering climate policy justice and the justice of transitions. Climate change and climate measures will likely create conflicts also in the future. Conducting justice evaluations, justifying climate policy justice, and climate policy formulation by genuinely hearing various parties is an integral part of constructive conflict solving.

The framework of this report did not allow defining, for example, the minimum scale or criteria of justice at a more in-depth level than that offered by fundamental and human rights. We were also unable to define how significance could be quantitatively assessed when evaluating the justice impacts of climate policy. In the future, tools should be developed for justice evaluations that utilize both quantitative and qualitative measures for carrying out evaluations that combine various dimensions, levels, and time frames and that can also be used to improve the knowledge base for resolving justice conflicts.

## APPENDICES

Appendix 1. Lähteenmäki-Uutela, A., Sivonen, M. H., Huttunen, S., Kaljonen, M., ja Kivimaa, P., 2023. Työpajaraaportti. Sidosryhmien näkemyksiä ilmastopolitiikan oikeudenmukaisuudesta liikenne-, energia- ja ruokasektoreilla. Available in Finnish at: <<https://www.ilmastopaneeli.fi/wp-content/uploads/2023/03/Ilmastopaneelin-raportti-1-2023-liite-1-tyopajaraaportti.pdf>>

## REFERENCES

Judson Abraham, 2017. Just Transitions for the Miners: Labor Environmentalism in the Ruhr and Appalachian Coalfields, *New Political Science*, 39:2, 218-240, DOI: 10.1080/07393148.2017.1301313

Adger W.N., Paavola J., Huq S., Mace M.J., 2006. *Fairness in Adaptation to Climate Change*. The MIT Press, Cambridge, MA.

Ahonen, A., Liski, M., Nokso-Koivisto, O., Nurmi, E., Vehviläinen, I., 2020. AEI-raportti: Kohti hiiletöntä Liikennettä – analyysi tulonjakovaikutuksista. Empiirinen tarkastelu hiilidioksidimaksun vaikutuksista kotitalouksiin. Aalto-yliopiston taloustieteen työryhmä. Available in Finnish at: [https://www.aalto.fi/wp-content/uploads/2020/10/AEI\\_raportti.pdf](https://www.aalto.fi/wp-content/uploads/2020/10/AEI_raportti.pdf)

Carbajo, R., Cabeza, L.F., 2019. ‘Sustainability and Social Justice Dimension Indicators for Applied Renewable Energy Research: A Responsible Approach Proposal’. *Applied Energy* 252: 113429.

Carley, S., Konisky, D.M., 2020. The justice and equity implications of the clean energy transition. *Nature Energy* 5, 569–577.

Cha, J. M., 2020. A just transition for whom? Politics, contestation, and social identity in the disruption of coal in the Powder River Basin. *Energy Research & Social Science* 68, 101657. <https://doi.org/10.1016/j.erss.2020.101657>

Clayton, S., 2018. The role of perceived justice, political ideology, and individual or collective framing in support for environmental policies. *Social Justice Research*, 31, 219-237.

Crabb, A., Leroy, P., 2012. *The Handbook of Environmental Policy Evaluation*. London: Routledge.

Day, M., Fiske, S., Downing, E., & Trail, T., 2014. Shifting Liberal and Conservative Attitudes Using Moral Foundations Theory. *Personality and Social Psychology Bulletin*, 40, 1559–1573.

Euroopan komissio 2022. Ehdotus Euroopan parlamentin ja neuvoston direktiiviksiyritysten kestäväää toimintaa koskevasta huolellisuusvelvoitteesta ja direktiivin (EU) 2019/1937 muuttamisesta COM/2022/71 final. Available in Finnish at: <https://eur-lex.europa.eu/legal-content/FI/TXT/?uri=CELEX%3A52022PC0071>

Euroopan komissio 2019. Komission tiedonanto. Euroopan vihreän kehityksen ohjelma. COM (2019) 640 final. Available in Finnish at: <https://eur-lex.europa.eu/legal-content/FI/TXT/HTML/?uri=CELEX:52019DC0640&from=EN>.

Fraser, N., 2000. Rethinking recognition. *New Left Review*, 3(3), 107–118.

Friedlingstein, Pi., O'Sullivan, M., Jones, M. W., Andrew, R. M., Hauck, J., Olsen, A., Peters, G. P., Peters, W., Pongratz, J., Sitch, S., Le Quéré, C., Canadell, J. G., Ciais, P., Jackson, R. B., Alin, S., Aragão, L. E. O. C., Arneeth, A., Arora, V., Bates, N. R., Becker, M., Benoit-Cattin, A., Bittig, H. C., Bopp, L., Bultan, S., Chandra, N., Chevallier, F., Chini, L. P., Evans, W., Florentie, L., Forster, P. M., Gasser, T., Gehlen, M., Gilfillan, D., Gkritzalis, T., Gregor, L., Gruber, N., Harris, I., Hartung, K., Haverd, V., Houghton, R. A., Ilyina, T., Jain, A. K., Joetzjer, E., Kadono, K., Kato, E., Kitidis, V., Korsbakken, J. I., Landschützer, P., Lefèvre, N., Lenton, A., Lienert, S., Liu, Z., Lombardozzi, D., Marland, G., Metz, N., Munro, D. R., Nabel, J. E. M. S., Nakaoka, S.-I., Niwa, Y., O'Brien, K., Ono, T., Palmer, P. I., Pierrot, D., Poulter, B., Resplandy, L., Robertson, E., Rödenbeck, C., Schwinger, J., Séférian, R., Skjelvan, I., Smith, A. J. P., Sutton, A. J., Tanhua, T., Tans, P. P., Tian, H., Tilbrook, B., van der Werf, G., Vuichard, N., Walker, A. P., Wanninkhof, R., Watson, A. J., Willis, D., Wiltshire, A. J., Yuan, W., Yue, X., Zaehle, S., 2020. Global Carbon Budget 2020, *Earth Syst. Sci. Data*, 12, 3269–3340, <https://doi.org/10.5194/essd-12-3269-2020>.

Friel S, Dangour AD, Garnett T, Lock K, Chalabi Z, Roberts I, Butler A, Butler CD, Waage J, McMichael AJ, Haines A., 2009. Public health benefits of strategies to reduce greenhouse-gas emissions: food and agriculture. *Lancet*. 2009 Dec 12;374(9706):2016-25. doi: 10.1016/S0140-6736(09)61753-0. PMID: 19942280.

Ghosh, B. et al., 2021a. 'Transformative Outcomes: Assessing and Reorienting Experimentation with Transformative Innovation Policy'. *Science and Public Policy* 48(5): 739–56.

Ghosh, B., Ramos-Mejía, M., Machado, R. C., Yuana, S. L., & Schiller, K. 2021b. Decolonising transitions in the Global South: Towards more epistemic diversity in transitions research. *Environmental Innovation and Societal Transitions*, 41, 106–109. <https://doi.org/10.1016/j.eist.2021.10.029>

Goddard, G., Farelly, M. A., 2018. Just transition management: Balancing just outcomes with just processes in Australian renewable energy transitions. *Applied Energy* 225, 110–123.

Goodman, D. Watts, M., 1997. *Globalising Food Agrarian Questions and Global Restructuring*. Routledge.

Green, F., Gambhir, A., 2020. Transitional assistance policies for just, equitable and smooth low-carbon transitions: who, what and how? *Climate Policy* 28, 902–921. <https://doi.org/10.1080/14693062.2019.1657379>.

Hallituksen esitys eduskunnalle ilmastolaiksi HE 27/2022. Available in Finnish at: <https://www.finlex.fi/fi/esitykset/he/2022/20220027?search%5Btype%5D=pika&search%5Bpika%5D=HE%2027%2F2022>

Hazrati, M., Heffron, R. J., 2021. Conceptualising restorative justice in the energy transition: Changing the perspectives on fossil fuels. *Energy Research & Social Sciences* 78, 102115

Helm, D., 2009. *Climate-change policy: Why has so little been achieved?* Teoksessa C. Hepburn, Helm D. (toim.), *The economics and politics of climate change*. Oxford: Oxford University Press. s. 9–35.

Hildén, M., Mela H., Saastamoinen U., 2021. Ilmastovaikutusten arviointi YVAssa ja SOVAssa -vaikutusten tunnistaminen ja johdonmukainen käsittely. Ympäristöministeriön julkaisuja 2021:18. Available in Finnish at: [https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163178/YM\\_2021\\_18.pdf](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163178/YM_2021_18.pdf)

Huan-Niemi, E., Huttunen, S., Paloviita, A., Puupponen, A., Lehtonen, H., Niemi, J., 2023. Action-oriented knowledge for sustainable management of organic soils in Finnish agriculture. *Agricultural and Food Science*. <https://doi.org/10.23986/afsci.120743>

Huttunen, S., Tuovila, S., Turunen, A., Järvelä, M., Kortetmäki, T., 2022. Ilmastopolitiikka, työelämä ja reilu siirtyminen. Työelämässä olevien suhtautuminen ilmastopolitiikan vaikutuksiin Suomessa. Suomen ympäristökeskuksen raportteja 42/2022. Available in Finnish at: <http://urn.fi/URN:ISBN:978-952-11-5526-0>  
<http://hdl.handle.net/10138/350987>

Ihmisoikeuskomitea 2022. Daniel Billy et al vs. Australia. CCPR/C/135/D/3624/2019. [https://tbinternet.ohchr.org/\\_layouts/15/treatybodyexternal/Download.aspx?symbolno=CCPR%2FC%2F135%2FD%2F3624%2F2019&Lang=en](https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CCPR%2FC%2F135%2FD%2F3624%2F2019&Lang=en)

Ilmastolaki 423/2022. <https://www.finlex.fi/fi/laki/alkup/2022/20220423>

Jaakkola .J.K., Juntunen S, Näkkäläjärvi K. 2018. The Holistic Effects of Climate Change on the Culture, Well-Being, and Health of the Saami, the Only Indigenous People in the European Union. 5:1–17. <https://doi.org/10.1007/s40572-018-0211-2>

Juhola, S., Heikkinen, M., Pietilä, T., Groundstroem, F., Käyhkö, J. 2022. Connecting climate justice and adaptation planning: An adaptation justice index, *Environmental Science & Policy* 136: 609-619 doi:10.1016/j.envsci.2022.07.024.

Järvelä, M., Kortetmäki, T., Huttunen, S., Turunen, A., Tossavainen, S., 2020. Ilmastotoiminen sosiaalinen hyväksyttävyyys. Suomen ilmastopaneeli. Raportti 1/2020.

Kautto, P., Similä, P., 2005. 'Recently Introduced Policy Instruments and Intervention Theories'. *Evaluation* 11(1): 55–68.

Kaljonen, M., Huttunen, S., Karttunen, K., Kortetmäki, T., Niemi, J., Saarinen, M., Salminen, J., Valsta, L., 2020. Reilu ruokamurros vaatii eri tavoitteita yhteensovittavaa politiikkaa ja laajaa osallistumista. Just food policy brief. Lokakuu 2020. Available in Finnish at: [https://issuu.com/suomenymparistokeskus/docs/justfood-policybrief\\_fi\\_10-2020\\_screen?fr=sYjlkODIxNDk4NDU](https://issuu.com/suomenymparistokeskus/docs/justfood-policybrief_fi_10-2020_screen?fr=sYjlkODIxNDk4NDU)

Kaljonen, M., Kortetmäki, T., Tribaldos, T., Huttunen, S., Karttunen, K., Maluf, R.S., Niemi, J., Saarinen, M., Salminen, J., Vaalavuo, M., Valsta, L., 2021. Justice in transitions: Widening considerations of justice in dietary transition. *Environmental Innovation and Societal Transitions* 40, 474–485. <https://doi.org/10.1016/j.eist.2021.10.007>

Kaljonen, M., Karttunen, K., Kortetmäki, T., 2022. Reilu ruokamurros. Polkuja kestävään ja oikeudenmukaiseen ruokajärjestelmään. Suomen ympäristökeskuksen raportteja 38/2022  
Suomen ympäristökeskus, Helsinki. <https://helda.helsinki.fi/handle/10138/349713>

Keinänen, A. & Pajuoja, J., 2020. Miten vaikutusten arviointia voitaisiin parantaa? Vaikutusarviointi ja sen kehittämistarpeet suomalaisessa lainvalmistelussa. Eduskunnan tarkastusvaliokunnan julkaisu 1/2020.

Kitt, S., Axsen, J., Long, Z., Rhodes, E., 2021. The role of trust in citizen acceptance of climate policy: Comparing perceptions of government competence, integrity and value similarity. *Ecological Economics*, 183, 106958.

Kivimaa, P., Huttunen, S., Lähteenmäki-Uutela, A., Heikkinen, M., Juhola, S., Kaljonen, M., Käyhkö, J., Lund, P., Näkkäläjärvi, K. ja Vainio, A., 2021. Kuinka oikeudenmukaisuus voidaan huomioida ilmastopolitiikassa? Suomen ilmastopaneelin julkaisuja 2/2021.

Kivistö, J., Kohtamäki, V., Lilja, E., Lyytinen, A., Tirronen, J., Holmberg, K., Teräsahde, S., 2022. Strategisen tutkimuksen rahoitusinstrumentin arviointi. Valtioneuvoston selvitys- ja tutkimustoiminnan julkaisusarja 2022:60.

Kolttalaki 253/1995. <https://www.finlex.fi/fi/laki/ajantasa/1995/19950253>

Kortetmäki T, Järvelä M. 2021. Social vulnerability to climate policies: Building a matrix to assess policy impacts on well-being. *Environmental Science & Policy* 123, 220-228 doi:10.1016/j.envsci.2021.05.018.

Kuusi, Tero, Pohjola, Johanna, Kaskinen, Tuuli, Kaitila, Ville, Karhinen, Santtu, Kauhanen, Antti, Lintunen, Jussi, Reinikainen, Tapio, Savolainen, Hannu, Sillanaukee, Otso, Suikkanen, Henrik., 2021. Vihreät toimet – ilmastopolitiikan vaikutuksia työllisyyteen. Valtioneuvoston selvitys- ja tutkimustoiminnan julkaisusarja 2021:22. Available in Finnish at: [https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163008/VNTEAS\\_2021\\_22.pdf?sequence=1&isAllowed=y](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/163008/VNTEAS_2021_22.pdf?sequence=1&isAllowed=y)

Laki naisten ja miesten välisestä tasa-arvosta 609/1986. <https://finlex.fi/fi/laki/ajantasa/1986/19860609>

Laki saamelaiskäräjistä 974/1995. <https://www.finlex.fi/fi/laki/ajantasa/1995/19950974>

Laki viranomaisten suunnitelmien ja ohjelmien ympäristövaikutusten arvioinnista 200/2005. <https://www.finlex.fi/fi/laki/ajantasa/2005/20050200>

Leppänen, J., Aula, V., Konttinen, L., 2020. Miten tietoa käytetään päätöksenteossa? Selvitys kansanedustajien tiedonkäytöstä lainsäädäntötyöhön liittyvässä päätöksenteossa. Sitran selvityksiä 172. Available in Finnish at: <https://www.sitra.fi/app/uploads/2020/11/miten-tietoa-kaytetaan-paatoksenteossa.pdf>

Li, Y., Wagenaar, H., 2019. Revisiting Deliberative Policy Analysis. *Policy Studies* 40, 427–436. DOI: 10.1080/01442872.2019.1618813.

Lipsanen, A., Kivimaa, P. & Leino, M., 2021. Sähköistyvän yhteiskunnan ja energiamurroksen vaikutukset sosiaaliseen oikeudenmukaisuuteen. Suomen ilmastopaneelin raportti 3/2021.

Lund P. 2023. Oikeudenmukainen energiasiirtymä aluetasolla. Suomen ilmastopaneelin julkaisuja 2/2023.

Lyytimäki, J. ym., 2018. 'Developing Key Indicators of Green Growth'. *Sustainable Development* 26(1): 51–64.

Lyytimäki, Jari – Paloniemi, Riikka – Karjalainen, Linda & Tapio, Petri., 2022. Kestävä ja terveellinen liikkuminen. Teoksessa: Laakso, Senja & Aro, Riikka (toim.) (2022) [Planeetan kokoinen arki. Askelia kestävämpään politiikkaan](#). Gaudeamus.

Lähteenmäki-Uutela, A., Lonkila, A., Huttunen, S., Grmelová, N., 2021a. Legal rights of private property owners vs. sustainability transitions? *Journal of Cleaner Production* 323, 129179. <https://doi.org/10.1016/j.jclepro.2021.129179>

Lähteenmäki-Uutela, A., Bask, A., Laari, S., Korhonen, O., 2021b. Valtion ja yritysten roolit ekohyvintivaltioon kytkeytyvien toimitusketjujen sääntelyssä. *Alue ja ympäristö* 50(2), 50-65.

MacNeil, R., Beaman, M., 2022. Understanding resistance to just transition ideas in Australian coal communities. *Environmental Innovation and Societal Transitions* 43: 118-126.



- Maluf, R., Burlandy, L., Cintrão, R. Jomalinis, E. Carvalho; T. Tribaldos, T., 2022. Sustainability, justice and equity in food systems: Ideas and proposals in dispute in Brazil, *Environmental Innovation and Societal Transitions* 45, 183-199 <https://www.sciencedirect.com/science/article/pii/S2210422422000958>
- Markkanen S & Anger-Kraavi A., 2019. Social impacts of climate change mitigation policies and their implications for inequality, *Climate Policy*, 19(7) 827-844, doi: 10.1080/14693062.2019.1596873
- Martin, A., Iles, A., 2020. The Ethics of Rare Earth Elements Over Time and Space. *HYLE – International Journal of Philosophy for Chemistry* 26, 5–30
- McCauley, D., Heffron, R. J., 2018. Just transition: integrating climate, energy and environmental justice. *Energy Policy*, 119, 1–7.
- McCauley, D., Ramasar, V., Heffron, R. J., Sovacool, B. K., Mebratu, D., & Mundaca, L., 2019. Energy justice in the transition to low carbon energy systems: Exploring key themes in interdisciplinary research. *Applied Energy*, 233–234, 916–921. <https://doi.org/10.1016/j.apenergy.2018.10.005>
- Mickwitz, P., 2003. 'A Framework for Evaluating Environmental Policy Instruments: Context and Key Concepts'. *Evaluation* 9(4): 415–36.
- Mohtat, N., Khirfan, L., 2021. The climate justice pillars vis-à-vis urban form adaptation to climate change: a review. *Urban Climate* 39, 100951.
- Moilanen, F., Alasoini, T., 2023. Workers as actors at the micro-level of sustainability transitions: A systematic literature review. *Environmental Innovation and Societal Transitions*, Volume 46. <https://doi.org/10.1016/j.eist.2022.100685>.
- Mullen, C., Marsden, G., 2016. Mobility justice in low carbon energy transitions. *Energy Research & Social Science* 18, 109–117.
- Normann, S., 2019. Green colonialism in the Nordic context: Exploring Southern Saami representations of wind energy development. *J Community Psychol.* 2021;49:77–94. DOI: 10.1002/jcop.22422.
- Näkkäljärvi, K., Juntunen, S., & Jaakkola, J.J.K., 2022. Cultural Perception and Adaptation to Climate Change among Reindeer Saami Communities in Finland. In *Climate Cultures in Europe and North America: New Formations of Environmental Knowledge and Action* (pp. 103–126). Routledge.
- Näkkäljärvi K., Juntunen S., Jaakkola J.J.K., 2020 SAAMI – Saamelaiden sopeutuminen ilmastonmuutokseen -hankkeen tieteellinen loppuraportti. Valtioneuvoston kanslia, Helsinki. <http://urn.fi/URN:ISBN:978-952-287-930-1>
- Näkkäljärvi, K. & Jaakkola, J.J.K., 2017. "Saamelaiset ja muutos." Pp. 44-67 in *Barentsin alue muuttuu – Miten Suomi sopeutuu?*, edited by M. Tennberg. Helsinki: Valtioneuvoston selvitys- ja tutkimustoiminnan julkaisusarja 31/2017.
- Oikeusministeriö 2017. OM 2/551/2017. Muistio saamelaiskäräjälain 9 §:n mukaisesta neuvotteluvollisuudesta. Available in Finnish at: [https://oikeusministerio.fi/documents/1410853/4735105/SaK%C3%A4L9%C2%A7\\_Neuvotteluvollisuus\\_Muistio.pdf/1e7c49d2-e911-4cbf-8733-112a00241b36/SaK%C3%A4L9%C2%A7\\_Neuvotteluvollisuus\\_Muistio.pdf.pdf](https://oikeusministerio.fi/documents/1410853/4735105/SaK%C3%A4L9%C2%A7_Neuvotteluvollisuus_Muistio.pdf/1e7c49d2-e911-4cbf-8733-112a00241b36/SaK%C3%A4L9%C2%A7_Neuvotteluvollisuus_Muistio.pdf.pdf)

Oja, L., Vaahtera, A., Vehviläinen, I., Ahvenharju, S., Hakala, L., 2013. 'Selvitys Energiaköyhyydestä Kotitalouksien Energiakustannukset'. 21. Ympäristöministeriön Raportteja.

Otto, I.M., Reckien, D., Reyer, C.P.O. ym., 2017. Social vulnerability to climate change: a review of concepts and evidence. *Regional Environmental Change* 17, 1651–1662. doi:10.1007/s10113-017-1105-9

Paavola, J-M., Kinnunen, A., Tanhua, I., Rautiainen, T., 2021. Ilmasto- ja energiastrategian sukupuolivaikutusten arviointi. Työ- ja elinkeinoministeriön julkaisuja 2021:52.

Paloviita, A., Puupponen, A., Kaljonen, M., Huttunen, A., Kortetmäki, T., Tykkyläinen, R., Turunen, A., Karttunen, K., 2021. Kohti reilua ruokajärjestelmää: Ruokajärjestelmän toimijoiden näkemyksiä ilmastopolitiikan keinojen oikeudenmukaisuudesta. Just Food-hankkeen raportti. Aavailable in Finnish at: <https://www.justfood.fi/download/noname/%7B8121FC34-0FB2-42C0-81D1-646DF44F18BE%7D/169195>

Pekkonen, M., Rytteri, T., Belinskij, A., Koljonen, S., Kostamo, K. & Ahlroth, P., 2020. Tietotaso ja kokemukset ekologisesta kompensatiosta Suomessa. Ympäristöministeriön julkaisuja 2020:20 <http://urn.fi/URN:ISBN:978-952-361-244-0>

PeVL 55/2018. Perustuslakivaliokunnan lausunto hallituksen esityksestä eduskunnalle laeiksi hiilen energiakäytön kieltämisestä ja oikeudenkäynnistä markkinaoikeudessa annetun lain 1 luvun 2 §:n muuttamisesta. [https://www.eduskunta.fi/FI/vaski/Lausunto/Sivut/PeVL\\_55+2018.aspx](https://www.eduskunta.fi/FI/vaski/Lausunto/Sivut/PeVL_55+2018.aspx)

PeVM 25/1994 vp. Perustuslakivaliokunnan mietintö n:o 25 hallituksen esityksestä perustuslakien perusoikeussäännösten muuttamisesta. [https://www.eduskunta.fi/FI/vaski/mietinto/Documents/pevm\\_25+1994.pdf](https://www.eduskunta.fi/FI/vaski/mietinto/Documents/pevm_25+1994.pdf)

Piironen, T., Leskinen, P., Saastamoinen, U., 2021. Säädösehdotusten ilmastovaikutusten arviointiopas. Ympäristöministeriö. Ympäristöministeriön julkaisuja 2021:15. <http://urn.fi/URN:ISBN:978-952-361-245-7>

Pörtner, H.O., Scholes, R.J., Agard, J., Archer, E., Arneth, A., Bai, X., ym., 2021. IPBES-IPCC co-sponsored workshop report on biodiversity and climate change; IPBES and IPCC. DOI:10.5281/zenodo.4782538.

Rekola, A., Kaljonen, M., Terämä, E., Aro, R., Vainio, A., Vikström, S., & Paloniemi, R., 2019. Ilmasto-oikeudenmukaisuus suomalaisessa hyvinvointi- ja terveystieteessä-Suuntaviivoja tutkimukselle. *Sosiaalilääketieteellinen Aikakauslehti*, 56(4). <https://doi.org/10.23990/sa.82621>

Rinne, J., Lyytimäki, J., Kautto, P., 2013. 'From Sustainability to Well-Being: Lessons Learned from the Use of Sustainable Development Indicators at National and EU Level'. *Ecological Indicators* 35: 35–42.

Robinson, M., Shine, T., 2018. Achieving a climate justice pathway to 1.5°C. *Nature Climate Change* 8, 564–569

Ruostetsaari, I., 2010. Changing Regulation and Governance of Finnish Energy Policy Making: New Rules but Old Elites? *REVIEW OF POLICY RESEARCH*, 27(3), 273-297. <https://doi.org/10.1111/j.1541-1338.2010.00442.x>

Ruostetsaari, I., 2017. Stealth democracy, elitism, and citizenship in Finnish energy policy. *Energy Research & Social Science*, 34, 93–103. <https://doi.org/10.1016/j.erss.2017.06.022>

- Rönty, H., 2022. Perus- ja ihmisoikeusvaikutusten arviointi lainvalmistelussa. Oikeusministeriön julkaisu, Selvityksiä ja ohjeita 2022:15. <http://urn.fi/URN:ISBN:978-952-400-302-5>
- Saamen kielilaki 1086/2003. <https://www.finlex.fi/fi/laki/alkup/2003/20031086>
- Schlosberg, D., 2007. Defining Environmental Justice: Theories, Movements and Nature. Oxford, UK: Oxford University Press.
- Sheller, M., 2018. Mobility justice. The politics of movement in an age of extremes. Verso. London.
- Shi, L., Chu, E., Anguelovskin, I., Aylett, A., Debats, J., Goh, K., Schenk, T., Seto, K. C., Dodman, D., Roberts, D., Roberts, J. T., VanDeever, S. D. 2016. Roadmap towards justice in urban climate adaptation research. *Nature Climate Change*, 6(2), 131–137.
- Siegrist, M., Connor, M., & Keller, C., 2012. Trust, confidence, procedural fairness, outcome fairness, moral conviction, and the acceptance of GM field experiments. *Risk Analysis*, 32(8), 1394-1403.
- Soimakallio, S., Tikkakoski, P., Niemistö, J., Savolahti, M., Rehunen, A., Seppälä, J., Hildén, M., 2021. Hiilineutraali Suomi 2035 – ilmasto- ja energiapolitiikan toimien ympäristövaikutusten arviointi. Valtioneuvoston selvitys- ja tutkimustoiminnan julkaisusarja 2021:64.
- Sovacool, B. K., Martiskainen, M., Hook, A., Baker, L., 2019. Decarbonization and Its Discontents: A Critical Energy Justice Perspective on Four Low Carbon Transitions. *Climatic Change* 155, 581–619.
- Sovacool, B.K., Burke, M., Baker, L., Kotikalapudi, C.K., Wlokas, H., 2017. 'New Frontiers and Conceptual Frameworks for Energy Justice'. *Energy Policy* 105 (June): 677–91. doi:10.1016/j.enpol.2017.03.005.
- Stavis, D., Felli, R. 2020. Planetary just transition? How inclusive and how just? *Earth System Governance*, 6, 100065. <https://doi.org/10.1016/j.esg.2020.100065>.
- Swim, J. K., & Bloodhart, B., 2018. The intergroup foundations of climate change justice. *Group Processes & Intergroup Relations*, 21(3), 472–496. doi: 10.1177/1368430217745366
- Szulecki, K., 2018. 'Conceptualizing Energy Democracy'. *Environmental Politics* 27(1): 21–41.
- Suomen perustuslaki 731/1999. <https://www.finlex.fi/fi/laki/ajantasa/1999/19990731>
- Temper, L., Walter, M., Rodriguez, I., Kothari, A., Turhan, E., 2018. A perspective on radical transformations to sustainability: resistances, movements and alternatives. *Sustain. Sci.*, 13, 747–764.
- 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>
- Vainio A., Käyhkö J., Loivaranta T., Lundberg P. & Honkanen O., 2023. Kansalaisten kokemukset Suomen ilmastopolitiikan oikeudenmukaisuudesta. Suomen ilmastopaneelin raportti 2/2023.
- Valtioneuvosto, 2022a. Lainvalmistelun vaikutusarviointiohje. Valtioneuvosto, Valtioneuvoston julkaisu 2022:66. <http://urn.fi/URN:ISBN:978-952-383-922-9>

Valtioneuvosto, 2022b. VNS 15/2022 vp. Valtioneuvoston selonteko kansallisesta ilmastonmuutokseen sopeutumissuunnitelmasta vuoteen 2030. Hyvinvointia ja turvallisuutta muuttuvassa ilmastossa. Available in Finnish at: <https://mmm.fi/paatokset/paatos?decisionId=0900908f807fc600>

Valtioneuvosto, 2022c. Ministeriöiden tulevaisuuskatsaus 2022. Yhteiskunnan tila ja päätöksiä vaativat kysymykset. Valtioneuvoston julkaisuja 2022:58. Available in Finnish at: <https://urn.fi/URN:ISBN:978-952-383-780-5>

Vedung, 1997. Public Policy and Program Evaluation. New Brunswick, NJ: Transaction Publishers

Williams, S., & Doyon, A. 2019. Justice in energy transitions. Environmental Innovation and Societal Transitions, 31, 144–153. <https://doi.org/10.1016/j.eist.2018.12.001>

Yhdistyneet Kansakunnat. 2007. United Nations Declaration on the Rights of Indigenous Peoples. A/RES/61/295. <<https://documents-dds-ny.un.org/doc/UNDOC/GEN/N06/512/07/PDF/N0651207.pdf?OpenElement>>

Ympäristöhallinnon ohjeita 1/2011. Akwé: -Kon-ohjeet. Ympäristöministeriö, Helsinki <https://julkaisut.valtioneuvosto.fi/handle/10138/41525>

Ympäristöministeriö, 2019. Säädosehdotusten ympäristövaikutusten arviointi. [https://ym.fi/documents/1410903/56741391/ym\\_saadosehdotusten\\_ymparistovaikutusten\\_arvioinnin\\_opas.pdf/3651c7f7-ee3a-d1b6-96d6-a6565c568f1e/ym\\_saadosehdotusten\\_ymparistovaikutusten\\_arvioinnin\\_opas.pdf?t=1611236596622](https://ym.fi/documents/1410903/56741391/ym_saadosehdotusten_ymparistovaikutusten_arvioinnin_opas.pdf/3651c7f7-ee3a-d1b6-96d6-a6565c568f1e/ym_saadosehdotusten_ymparistovaikutusten_arvioinnin_opas.pdf?t=1611236596622)

Xu, X., Chen, C., 2019. 'Energy Efficiency and Energy Justice for U.S. Low-Income Households: An Analysis of Multifaceted Challenges and Potential'. Energy Policy 128: 763–74.