

Climate Litigation as a Social Driver Towards Deep Decarbonisation II: Zooming in on Two Cases

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A rising number of climate cases is brought against governments, administrations, and companies in support of enhanced climate action. This is the second of two articles that aim to scrutinise climate litigation as a social process and as a driver towards deep decarbonisation from the perspectives of law, social, and political sciences. Working towards more systematic research on societal embedding and dynamics of climate litigation, we further develop and test two analytical tools, the Social Plausibility Assessment Framework and the Global Opportunity Structure, at two levels.

*While the first article presented these analytical tools and analysed general developments in climate litigation in their societal context at an overarching level, this second article zooms into a case-specific level and examines two landmark decisions, *Neubauer and others v Germany* and *Milieudefensie and others v Shell*. The analytical approach generates valuable insights about the conditions and effects of climate litigation on both levels. Our results show that climate litigation is a significant driver towards deep decarbonisation that is shaped by, and continuously shapes, legal, socio-political, economic, and scientific scripts and repertoires that enable novel forms of societal agency.*

I. Introduction

Climate lawsuits have become a constitutive element of the 'contentious repertoire'¹ of the climate justice

movement.² As such, they form part of various forms of climate-related civic engagements highlighting the growing impact of societal agency.³ Lawsuits often combine *legal* objectives such as enforcing interna-

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1 Charles Tilly, 'Contentious Repertoires in Great Britain, 1758-1834' (1993) 17(2) *Social Science History* 253.
2 Kim Bouwer and Joana Setzer, 'Climate litigation as climate activism: what works?' (*The British Academy*, 2020) <<https://www.thebritishacademy.ac.uk/publications/knowledge-frontiers-cop26-briefings-climate-litigation-climate-activism-what-works/>> accessed 18 November 2023; Dana R Fisher and Sohana Nasrin,

'Climate activism and its effects' (2021) 12(1) *WIREs Climate Change* 1; Keely Boom, Julie-Anne Richards, and Stephen Leonard, 'Climate Justice: The international momentum towards climate litigation' (*Heinrich-Böll-Stiftung*, June 2016) <<https://www.boell.de/en/2016/11/15/climate-justice-international-momentum-towards-climate-litigation>> accessed 18 November 2023; David Estrin and Helena Kennedy, 'Achieving Justice and Human Rights in an Era of Climate Disruption' (*International Bar Association*, 2014) <<https://biotech.law.lsu.edu/blog/Climate-Change-Justice-and-Human-Rights-Report-FULL.pdf>> accessed 19 November 2023; David Schlosberg and Lisette B Collins, 'From environmental to climate justice: climate change and the discourse of environmental justice' (2014) 5(3) *WIREs Climate Change* 359.

3 Stefan C Aykut and Antje Wiener, 'The Global Opportunity Structure for Climate Action. Theorizing Societal Agency towards Decarbonization' (28th Academic Convention of the DVPW, panel P158 Norms Research Beyond IR, 14-16 September 2021, Berlin), abstract available at <https://www.dvpw.de/fileadmin/docs/Kongress2021/2021_Panelprogramm_2021-09-08.pdf> accessed 18 November 2023.

tional or national climate law,⁴ establishing state responsibility⁵ or corporate liability,⁶ and more explicitly *political* and *societal* objectives which involve exerting pressure on policymakers to strengthen and implement regulation,⁷ blocking the construction of fossil-fuel infrastructure,⁸ increasing media attention and producing narratives,⁹ or giving voice to marginalised concerns.¹⁰ To capture these varieties of objectives and the intimate relation between climate litigation and other forms of climate-related societal agency, our interdisciplinary approach which we develop in two related papers in this journal does not look at litigation in isolation, but connects it to its wider socio-political environment and other social processes.

The first paper presented the *Social Plausibility Assessment Framework*, which allows for situating climate litigation as one among several social drivers that develop dynamics towards or away from deep decarbonisation and applied the framework on climate litigation. Within this framework, social drivers are conceptualised as social processes, which develop a dynamic momentum of their own. At the same time, however, they also develop through interaction with other social drivers within a global context. We call this specific constellation of enabling and constraining structural and institutional environments the *Global Opportunity Structure* for climate action.¹¹ Changes in such enabling and constraining environments occur for example with the development of new climate action *scripts* and *repertoires*,¹² which circulate across national jurisdictions and con-

stitute ‘resources’ for agents willing to engage in new litigation cases.¹³

This second article tests the combined analytical framework at a more granular level, by scrutinizing conditions and effects of two recent landmark decisions before European courts, *Neubauer and others v Germany* and *Milieudefensie and others v Shell*. We proceed by first recalling key elements of the frameworks and interim findings of the prior article (I), before zooming into the two empirical cases (II). In the discussion and conclusion section, we critically assess the approach and summarise main findings of both articles and give an outlook for future research.

II. Analytical Framework and Interim Findings

The Social Plausibility Assessment Framework has been developed in the Hamburg Climate Futures Outlook 2021 of the Excellence Cluster Climate, Climatic Change, and Society¹⁴ and refined in the 2023 Outlook.¹⁵ As a qualitative assessment framework, it constitutes a central contribution to scenario-driven research on climate futures. It has been developed as a robust approach to analyse ‘the past, present, and emergent dynamics of [...] overarching social drivers of decarbonisation’,¹⁶ and to assess whether a particular climate future can be regarded as plausible or not from a social science point of view, given available empirical evidence and analytical knowledge on

4 Esmeralda Colombo, ‘Enforcing International Climate Change Law in Domestic Courts: A New Trend of Cases for Boosting Principle 10 of the Rio Declaration’ (2017) 35(1) *UCLA Journal of Environmental Law and Policy* 98.

5 Roger HJ Cox, ‘The liability of European states for climate change’ (2014) 30(78) *Utrecht Journal for International and European Law* 125; Roda Verheyen, *Climate Change Damage and International Law. Prevention Duties and State Responsibility* (Brill 2005).

6 Andrew Gage and Michael Byers, ‘Payback Time? What the Internationalization of Climate Litigation Could Mean for Canadian Oil and Gas Companies’ (*Canadian Centre for Policy Alternatives*, October 2014) <https://policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2014/10/Payback_Time.pdf> accessed 18 November 2023.

7 Estrin and Kennedy (n 2).

8 Joana Setzer and Rebecca Byrnes, ‘Global Trends in Climate Change Litigation: 2020 Snapshot’ (Grantham Research Institute and LSE 2023).

9 Phillip Paiement, ‘Urgent agenda: How climate litigation builds transnational narratives’ (2020) 11(1-2) *Transnational Legal Theory* 121.

10 Jolene Lin, ‘Climate change and the courts’ (2012) 32(1) *Legal Studies* 35.

11 Stefan C Aykut, Antje Wiener, and others, ‘The Social Plausibility Assessment Framework. Societal Climate Futures as a Research Object. An Assessment Framework Centered on Social Processes’, in Detlef Stammer and others (eds), ‘Hamburg Climate Futures Outlook 2021. Assessing the plausibility of deep decarbonization by 2050’ (Cluster of Excellence Climate, Climatic Change, and Society (CLICCS) 2021).

12 Charles Tilly, *Regimes and Repertoires* (University of Chicago Press 2006).

13 Aykut and Wiener (n 3).

14 Aykut, Wiener, and others (n 11).

15 Cathrin Zengerling and others, ‘Social driver assessment: Climate litigation’ in Anita Engels and others (eds), ‘Hamburg Climate Futures Outlook 2023. The plausibility of a 1.5°C limit to global warming—Social drivers and physical processes’ (Cluster of Excellence Climate, Climatic Change, and Society (CLICCS) 2023).

16 Zengerling and others (n 15) 26.

social dynamics. The past Outlook editions have applied the Social Plausibility Assessment Framework in order to assess the plausibility of deep decarbonisation by 2050 and achieving the Paris Agreement temperature goals, based on the analysis of ten selected social drivers.¹⁷

The Social Plausibility Assessment Framework works with a series of key concepts that allow us to capture and describe the continuous interplay of historical dynamics and path dependencies, structural and institutional conditions for social change, and the creative work of societal agency. *Social drivers* within this framework are defined ‘as overarching social processes that generate change toward or away from a given scenario and its characteristics. As social processes, drivers mediate between societal agency and social structure’.¹⁸ To examine the plausible contribution of these processes to a global low-carbon shift, the Social Plausibility Assessment Framework comprises three analytical steps:¹⁹ Firstly, it traces *historical trajectory and current dynamics* of a social process; secondly, it scrutinises its *structural and institutional environments*; and thirdly, the more specific *enabling and constraining conditions* that will shape future driver dynamics. In a fourth analytical step we explore changes in the Global Opportunity Structure of the respective social driver, namely the production new of resources (scripts and repertoires) for societal agency.²⁰

The first article applied this framework to analyse climate litigation’s contribution to a global low-carbon shift at an overarching level.²¹ Drawing on existing databases and annual assessments on the state of cli-

mate change litigation, we found a steady rise in climate litigation since 2000, and a marked acceleration since 2015.²² The vast majority of climate cases were brought in the US, but the number of climate cases brought in Europe and the Global South is rising. We also found a rise in mostly climate-aligned strategic litigation that increasingly targets companies in addition to governments based on a diversifying set of scripts.²³ Around 55% of the decided climate cases documented in the Sabin Centre’s database have direct judicial outcomes that support decarbonisation.²⁴ Furthermore, we observed a series of major wins in recent years that are likely to serve as precedents for further climate cases and decisions. Based on these historic trajectories and legacies, we found it plausible that climate cases will further rise in numbers, geographical expansion, and pro-climate impact.

We then analysed the structural and institutional context of climate litigation, in search for early signs for path departure or critical junctures in process dynamics.²⁵ We did so first with regards to fundamental normative and political rules of engagements, such as access to justice, basic legal norms, dominant judicial institutions and practice, scientific evidence, and societal and institutional support. Most of these fundamental features of the structural and institutional environment of climate litigation appeared to be supportive of climate-aligned driver dynamics.²⁶ However, increased risks to judicial independence in many countries and the large conservative majority in the US Supreme Court were identified as obstacles to the global movement of climate litigation. Furthermore, the wars in Ukraine and the Middle East

17 Detlef Stammer and others (eds), ‘Hamburg Climate Futures Outlook 2021. Assessing the plausibility of deep decarbonization by 2050’ (Cluster of Excellence Climate, Climatic Change, and Society (CLICCS) 2021); Anita Engels and others (eds), ‘Hamburg Climate Futures Outlook 2023. The plausibility of a 1.5°C limit to global warming—Social drivers and physical processes’ (Cluster of Excellence Climate, Climatic Change, and Society (CLICCS) 2023).

18 Aykut, Wiener, and others (n 11).

19 For a more detailed introduction of the analytical frameworks see Aykut, Wiener, Zengerling and others, ‘Climate Litigation as a Social Driver Towards Deep Decarbonisation I: A Framework and a General Assessment’ (2023) 17(3) *Climate & Carbon Law Review* 181.

20 Ibid.

21 Ibid.

22 Ibid 185; Sabin Center for Climate Law, ‘Global Climate Change Litigation’ <<http://climatecasechart.com/non-us-climate-change-litigation/>> accessed 18 November 2023; Sabin Center for Climate Change Law / Arnold & Porter Kaye Scholer LLP Database,

‘U.S. Climate Change Litigation’ <<http://climatecasechart.com/us-climate-change-litigation/>> accessed 18 November 2023; Grantham Research Institute on Climate Change and the Environment and Sabin Center for Climate Change Law, ‘Climate Change Laws of the World Database,’ <<https://climate-laws.org/>> accessed 18 November 2023; see also Maryam Golnaraghi and others, ‘Climate Change Litigation – Insights into the evolving global landscape’ (*The Geneva Association*, 2021) <https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/climate_litigation_04-07-2021.pdf> accessed 18 November 2023, 27ff; Joana Setzer and Catherine Higham, ‘Global trends in climate change litigation: 2022 Snapshot’ (Grantham Research Institute and LSE 2022), 15; Joana Setzer and Catherine Higham, ‘Global Trends in Climate Change Litigation: 2023 Snapshot’ (Grantham Research Institute and LSE 2023).

23 Aykut, Wiener, Zengerling and others (n 19) 185; see also Setzer and Higham, 2023 Snapshot (n 22) 3, 22, 23.

24 Sabin Center for Climate Law (n 22).

25 Aykut, Wiener, Zengerling and others (n 19), *supra* note 20, 183.

26 Ibid 186-187; see also Aykut, Wiener, and others (n 11); Zengerling and others (n 15).

are shifting geopolitical attention away from climate change. The analysis of more specific enabling and constraining conditions yielded similar results.²⁷ A growing body of climate law, advances in attribution science, high-profile court successes that inspire similar cases in other jurisdictions, transnational litigation networks providing support to new claimants, a growing body of literature and legal know-how, social movements, and societal norms all work towards supporting future cases. However, we also identified signs of a conservative backlash against climate litigation, including attempts to discourage litigants through SLAPP suits and anti-ESG cases.

Overall, we found that climate litigation is, and in the nearer future will plausibly be expected to remain, an important driver towards deep decarbonisation. Its dynamic highly depends on developments of other social drivers of deep decarbonisation such as, for example, climate-related regulation, climate protests, and knowledge production. It is therefore unlikely that current and prospective driver dynamics will by themselves suffice to drive deep decarbonisation at the scale and pace needed to keep global warming within the Paris temperature goals.

To better understand interactions between climate litigation and other social processes and forms of climate action, we examined the global ‘repertoire of resources’ generated by social drivers, used and influenced by climate litigation, ie the Global Opportunity Structure for climate action. We identified a broad range of positive effects of climate litigation on legal, socio-political, and economic resources of the Global Opportunity Structure but also several potentially negative effects.²⁸ Overall, five resources produced by climate litigation cases stand out with regard to their dynamically evolving global quality: legal precedents providing argumentative blueprints and support for new cases; network capacities constituted by transnational litigation networks; expert knowledge on causality, attribution, and responsibility; climate-related frames and narratives; and agenda-setting in media and policy processes.

III. Zooming in: Conditions and Effects of Two European Climate Cases

In order to test the analytical framework constituted by the *Social Plausibility Assessment Framework* and *Global Opportunity Structure* with a more fine-

grained view, we scrutinise two prominent cases of climate litigation in Europe with the same lenses. We have chosen two landmark decisions issued in 2021 to trace social dynamics in both a private and a public law setting: the *Shell case (Milieudefensie and others v Royal Dutch Shell PLC)*²⁹ decided at the first instance in the District Court in The Hague, Netherlands and the German climate case targeting the German Federal Climate Protection Act (*Neubauer and others v Germany*)³⁰ decided by the German Federal Constitutional Court. For each case, we start with a brief presentation of core case data followed by an analysis of what made this case possible and what determined its success. The analysis will follow steps two and three of the Social Plausibility Assessment Framework, and thus carve out the structural and institutional environments as well as the enabling and constraining conditions of both cases (sections 1 and 2). Data will be mainly drawn from the rulings as well as from information on the background of the cases as published by the plaintiffs. Based on this contextual embedding of the cases, we discuss potential effects of both decisions on resources in the Global Opportunity Structure (section 3).

1. *Milieudefensie and others v Royal Dutch Shell PLC* – Social Plausibility Conditions

In April 2019, the environmental NGO Milieudefensie, the Dutch branch of Friends of the Earth, six other NGOs, and more than 17000 citizens filed a lawsuit against Royal Dutch Shell PLC (RDS) at The Hague District Court.³¹ They argued that RDS was

27 Aykut, Wiener, Zengerling and others (n 19); see also Aykut, Wiener, and others (n 11); Zengerling and others (n 15).

28 Aykut, Wiener, Zengerling and others (n 19); see also Aykut, Wiener, and others (n 11); Zengerling and others (n 15).

29 *Milieudefensie and others v Royal Dutch Shell PLC*, The Hague District Court decision of 26 May 2021, File No. C/09/571932/HA ZA 19-379.

30 *Neubauer and others v Germany*, German Federal Constitutional Court (BVerfG) Order of the First Senate (24 March 2021) 1 BvR 2656/18, 1 BvR 288/20, 1 BvR 96/20, and 1 BvR 78/20.

31 *Milieudefensie and others v Royal Dutch Shell PLC* (n 29). For a discussion of the case see Chiara Macchi and Josephine van Zeben, ‘Business and human rights implications of climate change litigation: Milieudefensie et al. v Royal Dutch Shell’ (2021) 30(3) RECIEL 409; with a focus on success factors see Jacqueline Peel and Rebekkah Markey-Towler, ‘Recipe for success?: Lessons for strategic climate litigation from the Sharma, Neubauer, and Shell cases’ (2021) 22(8) German Law Journal 1484.

breaching its duty of care under Dutch law through its annual aggregate CO₂ emissions into the atmosphere along the value chain. Consistent with the plaintiff's claim, in its decision in May 2021 the District Court ordered RDS and the Shell group to reduce its aggregate annual volume of all CO₂ emissions into the atmosphere along the value chain by at least net 45% by the end of 2030 based on 2019 emission levels. Shell appealed the decision in March 2022.³²

Three components of the structural and institutional environment in which the case was brought were crucial for its success: access to justice, fundamental legal norms, and scientific evidence. Firstly, access to justice was granted to Milieudefensie and five other NGOs under Book 3 section 305a of the Dutch Civil Code. This right for environmental NGOs to bring civil law cases in the public interest was codified in 1994 enshrining prior case law of the Dutch Supreme Court.³³ It is important to note, however, that the District Court also highlighted several limits of standing: The claim could not be brought in the interest of current and future generations of the world's population but only in the interest of Dutch residents and the inhabitants of the Wadden Sea area.³⁴ Furthermore, the NGO ActionAid did not fulfil the standing criteria since its objective is not fo-

cused on Dutch interests, but mainly on supporting developing countries, especially in Africa.³⁵ Finally, the court did not grant standing to the more than 17000 individual plaintiffs because they did not show a sufficiently concrete individual interest beyond the public interest already represented by the NGOs.³⁶

Secondly, several fundamental legal norms significantly shaped the ruling. Article 7 Rome II³⁷ in conjunction with Article 191 of the Treaty on the Functioning of the European Union (TFEU)³⁸ lead to the applicability of Dutch law given the global context of the claim.³⁹ At the heart of the ruling is the unwritten standard of care of Book 6 section 162 of the Dutch Civil Code, which can also be considered as a fundamental legal norm in the Dutch jurisdiction. It implies that acting against what is generally accepted according to unwritten law is unlawful.⁴⁰ Due to the broad meaning of this unwritten standard of care, its interpretation was in itself another cornerstone of the judgement. In interpreting the standard of care the court referred, among others, to Articles 2 and 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms as well as to Articles 6 and 17 of the International Covenant on Civil and Political Rights (ICCPR).⁴¹ Thus, the fundamental legal norms of human rights also played a decisive role for the success of the case.

Thirdly, scientific evidence on the Shell group's CO₂ emissions, its consequences for the Netherlands and the Wadden region, as well as on emission reduction requirements to prevent dangerous climate change and possible emission reduction pathways was another key component of the institutional environment.⁴² The court explicitly referred to work of the IPCC, the International Energy Agency (IEA), and the United Nations Environment Programme (UNEP). Although no specific journal articles of attribution science or the Carbon Majors Report were cited in the ruling, scientific evidence brought forward by both parties was the basis for the courts finding that the Shell group 'is a major player on the worldwide market of fossil fuels' and 'responsible for significant CO₂ emissions all over the world'.⁴³ Finally, the climate justice movement was a key social institutional component to bring the case considering that it was supported by seven NGOs and more than 17000 individual plaintiffs.

In addition to these structural and institutional environments, several specific legal, network, and further societal conditions such as media coverage and

32 Shell Global Media Relations, 'Shell confirms decision to appeal court ruling in Netherlands climate case', (Shell, 20 July 2021) <<https://www.shell.com/media/news-and-media-releases/2021/shell-confirms-decision-to-appeal-court-ruling-in-netherlands-climate-case.html>> accessed 21 November 2023.

33 Hanna Tolsma, Kars de Graaf, and Jan Jans, 'The Rise and Fall of Access to Justice in The Netherlands' (2009) 21(2) Journal of Environmental Law 309, 313.

34 *Milieudefensie and others v Royal Dutch Shell PLC*, The Hague District Court (Netherlands) Decision of 26 May 2021, File No. C/09/571932 / HA ZA 19-379 (Unofficial English version) [4.2.4].

35 *Ibid* [4.2.5].

36 *Ibid* [4.2.7].

37 Council Regulation 864/2007 on the law applicable to non-contractual obligations (Rome II) [2007] OJ L 199.

38 Consolidated version of the Treaty on European Union and the Treaty on the Functioning of the European Union (TFEU) [2016], OJ C 202.

39 *Milieudefensie and others v Royal Dutch Shell PLC* (Unofficial English version) (n 34) [4.3.1ff].

40 *Ibid* [4.4.1].

41 *Ibid* [4.4.9]; International Covenant on Civil and Political Rights (1966) Treaty Series, 999, 171.

42 *Ibid* [4.4.5ff], [4.4.26 ff]; see also Peel and Markey-Towler (n 31) 1492ff.

43 *Ibid* [4.4.5].

campaigning enabled the initiative and success of the case. With regard to the legal conditions, the Paris Agreement⁴⁴ and the *Urgenda* ruling⁴⁵ were key for the line of argument of the decision. Although the Paris Agreement is not directly applicable to the case because it does not address private companies, it played a crucial role in setting the overall emission reduction target linked to climate science and thus framing ‘what is needed to prevent dangerous climate change’.⁴⁶ The court took the ‘well below 2°C’ and ‘1.5°C targets’ of the Paris Agreement as representing the ‘best available scientific findings in climate science [...] supported by widespread international consensus ... that protect the common interest of preventing dangerous climate change’.⁴⁷ Based on those targets, it assumed that global concentrations of greenhouse gases need to be limited to 450 ppm or 430 ppm, respectively. The court also established that due to the very limited carbon budget remaining, immediate action is needed and – citing the IEA and UNEP⁴⁸ – argued that the next ten years will be crucially important to prevent dangerous climate change.⁴⁹ In the next step it focuses on reduction pathways, again drawing on IPCC and other scientific evidence, and includes the 1.5°C reduction pathway – which requires net 45% reductions in 2030 (relative to 2010) and net 100% in 2050 – in its interpretation of the unwritten standard of care due to the wide scientific consensus it is based upon.⁵⁰ It further argued that it is clear that this target cannot be reached by state action alone but requires efforts from all societal actors. Drawing again on widespread scientific consensus and the Oxford report,⁵¹ it established that ‘each company must independently work towards achieving net zero emissions by 2050’ and defined a net 45% CO₂ emission reduction by 2030 based on 2019 emission levels and encompassing scope 1, 2, and 3 emissions as the appropriate standard of care for the Shell group.⁵² In addition to the Paris Agreement and its scientifically founded targets and consequences, the *Urgenda* ruling, several decisions of the UN Human Rights Committee, and sources of soft law such as the UN Guiding Principles, the UN Global Compact, and the OECD Guidelines for Multinational Enterprises were crucial for reasoning the human rights dimension of the case.⁵³

Beyond these legal enabling conditions, a key enabling network condition of the *Shell* case was the joint effort of seven environmental NGOs who could mobilise more than 17000 individuals to join as plain-

tiffs. Although one NGO and all individual plaintiffs were not granted standing in court, the broad participation was important for fundraising, campaigning, and media coverage around the case. According to Milieudefensie, they needed about €300,000 to take the case to court, including financing the attorney and his team, obtaining further expertise to investigate evidence, substantiating the case, providing for translators, and organising media campaigns.⁵⁴ They actively engaged in crowd funding to cover these expenses.⁵⁵ Funding opportunities in these kinds of cases are usually strongly asymmetric, since large private companies have a lot more funding available to finance legal teams of international law firms and other supporting staff. Roger Cox, the attorney who represented Milieudefensie, also initiated the *Urgenda* case and thus brought key legal expertise for successfully arguing the case.⁵⁶ NGOs and attorney teams exchange experiences in transnational networks and partly also explicitly engage in strategic litigation networks such as the Climate Litigation Network founded by the Urgenda Foundation, the Climate Justice Programme, or Green Legal Impact. Involved NGOs, but also initiatives of research institutions such as the Sabin Center for Climate Change Law and the Grantham Institute for Climate Change

44 Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

45 *Urgenda Foundation v the Netherlands*, Dutch Supreme Court Judgment of 20 December 2019, No. 19/00135, File No. ECLI:NL:HR:2019:2006.

46 Ibid [4.4.26ff].

47 Ibid [4.4.27].

48 IEA, ‘World Energy Outlook’ (IEA, November 2019) <<https://www.iea.org/reports/world-energy-outlook-2019>> accessed 21 November 2023; United Nations Environment Programme, ‘UN Environment 2017 Annual Report’ (2018).

49 *Milieudefensie and others v Royal Dutch Shell PLC* (Unofficial English version) (n 34) [4.4.28].

50 Ibid [4.4.29].

51 ‘Mapping of current practices around net zero targets’ (Oxford University Net Zero Network, May 2020) <<https://netzeroclimate.org/wp-content/uploads/2020/12/Net-Zero-Target-Map.pdf>> accessed 21 November 2023.

52 *Milieudefensie and others v Royal Dutch Shell PLC* (Unofficial English version) (n 34) [4.4.39].

53 Ibid [4.4.9ff].

54 ‘Frequently Asked Questions about the climate lawsuit against Shell, No. 16’ (Milieudefensie) <<https://en.milieudefensie.nl/climate-case-shell/frequently-asked-questions-about-the-climate-lawsuit-against-shell>> accessed 21 November 2023.

55 Ibid.

56 See also Peel and Markey-Towler (n 31) 1489ff.

compile case law on climate change and thus provide a knowledge base and inspire further climate litigation.⁵⁷

Applying steps two and three of the Social Plausibility Assessment at a case-specific level gives insights into the concrete structural and institutional environments as well as more specific context conditions that were decisive for the success of the case. It shows that not only legal context matters but also highlights the importance of, for example, scientific evidence, and the build-up of support networks. It thus also underlines the relevance of an interdisciplinary analysis of climate litigation as a social process and allows for a differentiated assessment.

2. *Neubauer and others v Germany* – Social Plausibility Conditions

In April 2021, the German Federal Constitutional Court decided about four claims brought by a group of young German citizens, citizens from Bangladesh and Nepal, and several NGOs including Greenpeace and Germanwatch against the 2019 German Federal

Climate Protection Act (FCPA).⁵⁸ The court unanimously held that the FCPA is partly unconstitutional and violating fundamental rights because it does not regulate emission reduction targets beyond 2031 towards a constitutionally required climate neutrality. The decision was ground-breaking in two ways: firstly, it interpreted Article 20a of the German Basic Law as to include a state obligation to reach climate neutrality, and secondly, it established a ‘new’ intertemporal dimension of fundamental rights which requires steep emission reduction today to guarantee fundamental rights in the future.⁵⁹

Several key elements of the structural and institutional environment shaped the decision: access to justice, fundamental legal norms, scientific evidence, and arguably the expertise of the court. Standing criteria enabled access to the court for all individual complainants and thus all citizens from Germany, Bangladesh, and Nepal. Since access to the German Constitutional Court requires the possibility of a violation of individual fundamental rights, none of the NGOs was admitted to the court.⁶⁰ Narrow standing criteria in Germany and also at the Court of Justice of the European Union are still a severe hurdle to bring cases in the public interest.⁶¹ In terms of fundamental legal norms, Articles 20a and 2 of the German Basic Law were crucial for the admissibility and merits of the case. Article 20a Basic Law establishes that the state has to protect natural livelihoods for current and future generations. The German Constitution does not encompass an explicit individual right to a healthy environment as many other constitutions do. In interpreting Article 20a jointly with Article 2, the fundamental right to freedom, the court established the ‘intertemporal guarantees of freedom’ which include climate neutrality and can be invoked by individual complainants.⁶² The personal set up of the first senate of the German Constitutional Court which decided the case was arguably favourable for the decision, since at least four of its eight members have special expertise in environmental or international law.⁶³ With regard to the scientific evidence, the court – somewhat similar to the Dutch courts in the *Urgenda* and *Shell* cases – heavily relied on the targets of the Paris Agreement, the budget approach and related science, especially reports of the IPCC and, in the German case, the reports of the German Environmental Protection Agency as well as the German Advisory Council on the Environment.⁶⁴ As in the *Shell* case, the climate

57 ‘Global Climate Litigation’ (*Stichting Urgenda*) <<https://www.urgenda.nl/en/themas/climate-case/global-climate-litigation>> accessed 21 November 2023.

58 *Neubauer and others v Germany* (n 30); for a discussion of the case see Felix Ekardt and Katharine Heyl, ‘The German constitutional verdict is a landmark in climate litigation’ (2022) 12(8) *Nature Climate Change* 697; Kurt Falßbender, ‘Der Klimabeschluss des BVerfG – Inhalte, Folgen und offene Fragen’ [2021] *NJW* 2085; Louis Kotzé, ‘Neubauer et al. versus Germany: Planetary Climate Litigation for the Anthropocene?’ (2021) 22(8) *German Law Journal* 1423; and for success factors see Peel and Markey-Towler (n 31).

59 *Neubauer and others v Germany* (n 30) Leitsätze 2 and 4, [1]–[270].

60 *Ibid* [116].

61 see the *Peoples’ Climate Case* (*Armando Ferrão Carvalho and others v. The European Parliament and the Council*, no. C-565/19 P, European Court of Justice Judgment of 25 March 2021): The case was brought to the CJEU by partly the same complainants as involved here, and the court did not grant access to justice based on the narrow ‘Plaumann test’ it (still) applies in interpreting Article 263 TFEU (n 38). This has already been criticised by the Compliance Committee of the Aarhus Convention for not being in line with its Article 9: Compliance Committee, ‘Findings and Recommendation of the Compliance Committee with Regard to Communication ACCC/C/2008/32 (Part I) Concerning Compliance by the European Union’ (*Economic Commission for Europe*, adopted on 14 April 2011, <https://unece.org/DAM/env/pp/compliance/CC-32/ece.mp.pp.c.1.2011.4.add.1_as_submitted.pdf> accessed 21 November 2023).

62 *Neubauer and others v Germany* (n 30) Leitsatz 4.

63 See the List of Members of the First Senate of the German Federal Constitutional Court in *Neubauer and others v Germany* (n 30) [270].

64 *Ibid* [16]–[38], [208]–[238]; Peel and Markey-Towler (n 31) 1492ff.

justice movement was a cornerstone of the litigation with Luisa Neubauer, one of the main activists of the German Fridays4Future initiative, acting as the first complainant in one of the four bundled complaints and thus giving the case a public face.

Several other legal, network, and societal conditions enabled the initiative and success of the case. From a legal perspective, the Federal Climate Protection Act (FCPA), the Paris Agreement and case law played important roles. The role of the FCPA was twofold. On the one hand, its shortcoming in not regulating a reduction pathway after 2030 gave rise to the case. On the other hand, the wording in Section 1(3) FCPA was a crucial anchor point in the legal arguing of complainants and the court since it set the targets of the Paris Agreement and the German commitment to climate neutrality by 2050 as fundamentals of the law.⁶⁵ The Paris Agreement was an important enabling condition in being the reference point of the FCPA with regard to the overall targets and in its link to climate science, especially the IPCC reports.⁶⁶

Prior case law was also supportive. For example, the Constitutional Court referred to a 2019 decision of the Berlin Administrative Court in a climate case brought by partly the same plaintiffs and the same lawyers as the *Neubauer case*. The case was declared inadmissible by the court and thus lost by the plaintiffs, but in its decision, the Berlin Administrative Court argued that the fact that a very large part of the population is affected by climate change does not a priori prevent the possibility of being sufficiently individually concerned to be granted standing in court⁶⁷ and that Article 2(2)(1) of the German Basic Law obliges the state to protect its citizens from climate change.⁶⁸ Both arguments were taken up by the Constitutional Court in reasoning the admissibility of the case.⁶⁹ This demonstrates that also ‘lost’ cases can produce supportive building blocks for future legal arguments. It is also interesting to observe that the Constitutional Court referred on several occasions to international case law. Although such references were not decisive for the result of the ruling, they still show a transnational dimension in jurisprudence which builds up ‘common denominators’ in climate law and its interpretation. For example, the Constitutional Court cited the High Court of New Zealand, the Gerechtshof Den Haag, the Hoge Raad of the Netherlands, and the United States Court of Appeals for the Ninth Circuit to support its finding that a state cannot avoid its responsibility by refer-

ring to GHG emissions in other states.⁷⁰ Additionally, in support of linking temperature targets with the budget approach, the Court referred to the rulings of the Dutch and Irish Supreme Courts.⁷¹

Initiative and success of the case were also enabled by knowledgeable, engaged, and well networked attorneys⁷² as well as by the support of Greenpeace, Germanwatch, Protect the Planet, and Fridays4Future. The NGOs supported funding, helped identifying suitable complainants, and initiated media campaigns around the case. The *Urgenda* success motivated NGOs and attorneys to bring similar cases in Germany.

Applying the Social Plausibility Assessment Framework at the case-level reveals the specific legal, socio-political, scientific, and economic environments on a structural and institutional level, as well as enabling conditions decisive for bringing and arguing the cases successfully. This fine-grained view also highlights the interplay of several national and transnational social plausibility conditions. The analytical framework thus proves itself as beneficial in disentangling crucial elements of the societal embedding and enabling of climate litigation, by which it can overcome disciplinary and jurisdictional boundaries.

3. Effects on the Global Opportunity Structure

Turning from conditions to effects of climate litigation, the following section examines how both cases affect future climate litigation and global climate action in general. By tracing if and how much those specific cases contributed to generate resources of a global quality that become visible and accessible to other societal agents, the analysis contributes to a better understanding of the dynamics leading to changes in the *Global Opportunity Structure*. Figure 1 (see

65 *Neubauer and others v Germany* (n 30) [158]–[166].

66 *Ibid* [7]–[11], [159], [214ff].

67 *Family Farmers and Greenpeace Germany v Germany*, Administrative Court of Berlin (Verwaltungsgericht Berlin) Judgment of 31 October 2019, 10 K 412.18 [77].

68 *Ibid* [74].

69 *Neubauer and others v Germany* (n 30) [110], [148].

70 *Ibid* [203].

71 *Ibid* [218].

72 See also Peel and Markey-Towler (n 31) 1489ff.

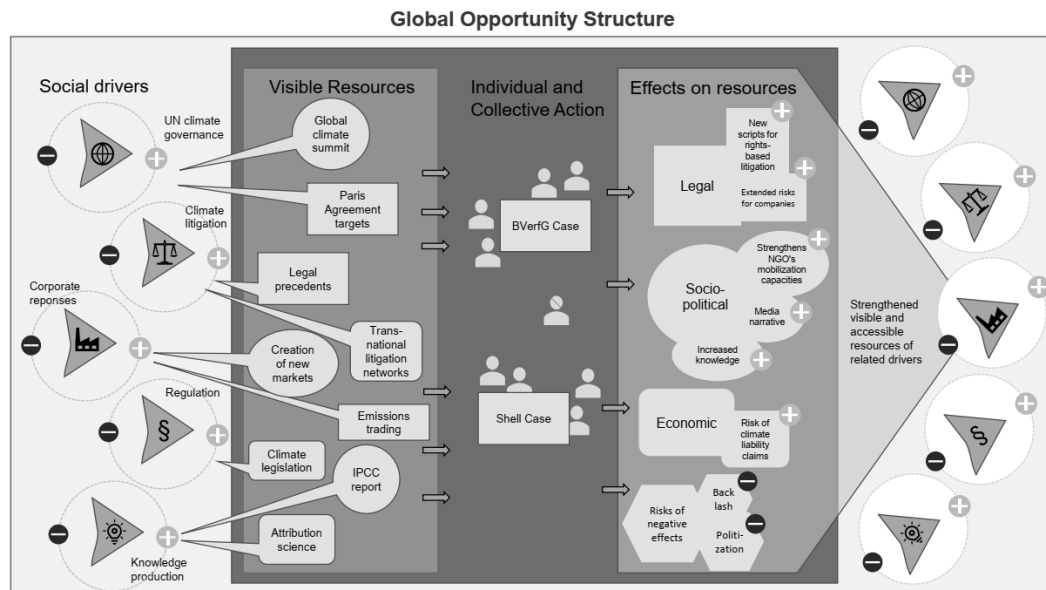


Figure 1: Global Opportunity Structure Accounting for Social Drivers and the two Analysed Cases - Authors' adaptation of Figure 1 of the first part of this article in Aykut, Wiener, Zengerling and others (n 19), based on Aykut, Wiener, and others (n 11) 36.

above) depicts our understanding of the relation between social drivers, the Global Opportunity Structure, and the two analysed cases: social drivers such as climate litigation (left column) enter or act within the Global Opportunity Structure, make use of its visible resources (second left column) via individual and collective action (ie the two presented cases, middle column), and thereby develop or enhance scripts and repertoires (second left column) that direct social drivers towards or away from deep decarbonisation (right column).

In the following, we present an in-depth assessment of the effects of these two cases on the dynamics of the Global Opportunity Structure. In doing so, we distinguish between resources partly provided by other social drivers of climate action the cases built on (left column) and effects on resources of climate action (right column). In Table 1 (see Appendix), we provide a detailed analysis of legal resources in the two cases.

In Table 2 (see Appendix), we provide a combined assessment of the effects of both cases on the socio-political, economic, and scientific resources of climate action.

The analysis shows that both cases, albeit only elements within a large puzzle, create new and strengthen existing scripts and repertoires in legal,

socio-political, economic, and scientific resources of the Global Opportunity Structure that work towards deep decarbonisation. In addition to the large number of supportive effects on climate action, we also identified several risks that have to be taken into consideration but which did not yet materialise. Figure 1 (see above) summarises the result of this fine-grained analysis of two specific cases. We conclude that both cases enhance the Global Opportunity Structure and thus strengthen the social drivers of climate action towards deep decarbonisation: UN Climate Governance, climate-related regulation, climate litigation itself, corporate responses, transnational initiatives, knowledge production, and journalism.

IV. Discussion and Conclusion

The approach presented by this and the previously published article aims to deepen our understanding of climate litigation as one of several social drivers towards deep decarbonisation through an interdisciplinary lens encompassing legal, social, and political sciences. Is it possible to assess the dynamics and effects of a social process like climate litigation? How could such an assessment look like and what would constitute its focus? Building on prior studies, espe-

cially the pioneering work of the first and the second Hamburg Climate Futures Outlook,⁷³ we introduced and applied the analytical tools of the Social Plausibility Assessment and the Global Opportunity Structure to examine the role climate litigation plays in global societal dynamics towards decarbonisation at an overarching (article I⁷⁴) and case-specific (article II) level. The articles illustrated how both complementary frameworks facilitate an interdisciplinary approach which highlights historic trajectories and legacies, structural and institutional environments, as well as enabling and constraining conditions of climate litigation in legal, socio-political, economic, and scientific dimensions. This interdisciplinary and multidimensional perspective allowed us to assess in the first article at an overarching level whether and to what extent climate litigation can be a significant driver towards deep decarbonisation. We found that it is an important but in itself insufficient driver towards deep decarbonisation, and that its effectiveness is highly dependent on developments in other social drivers, especially UN Climate Governance, climate-related regulation, knowledge production, and climate protests. Applying the analytical framework of the Global Opportunity Structure to the current state of climate litigation, we identified effects on five resources of a global quality that stand out: legal precedents (generated by legal cases and understood in a wide sense), network capacities (in transnational litigation networks facilitating hybrid knowledge production), expert knowledge (studies establishing causality or attributing emissions), climate-related frames and narratives (such as climate justice and corporate responsibility), and agenda-setting (via social and traditional media coverage).

In this second part of the study, we tested both analytical frameworks at a more granular scale and examined the context conditions and the effects of two recent European landmark cases: *Milieudefensie and others v Royal Dutch Shell PLC* and *Neubauer and others v Germany*. The analysis shows that both frameworks allow for a differentiated view on the societal embedding and on the broader effects of individual cases. We observed that both court decisions provide legal, socio-political, economic, and scientific resources for climate action that become accessible to other societal agents, and which support the development of new climate action scripts and repertoires. We also identified potential risks for climate action which have not yet materialised, but should be tak-

en into consideration in further observations when assessing the dynamics of climate litigation.

From a methodological perspective, we find that the analytical frameworks of the Social Plausibility Assessment Framework and the Global Opportunity Structure apply at both an overarching and a more fine-grained, case-specific level, and give valuable interdisciplinary and differentiated insights into conditions and effects of climate litigation understood as a social phenomenon. Our research thereby contributes to an emerging research agenda on the conditions, effects, and effectiveness of climate litigation.⁷⁵ It adds to existing socio-legal studies by carving out the societal embeddedness of climate litigation, especially with a view to the dynamics and effects. With the analytical tools, we also aim to show how classic techno-economic assessments on global climate governance and low-carbon transformations could be complemented by assessments of social drivers. The overall purpose of this research is to enable a dialogue between legal and (other) social science-based analyses of climate litigation, and offer an analytical framework for such interdisciplinary work.

Assessing whether or not climate litigation will continue to play an influential role in future societal dynamics towards deep decarbonisation requires more systematic research, which can build on the frameworks laid out and applied in both articles. Future research could further scrutinise and map the Global Opportunity Structure for climate action, examine whether a driver generates resources of a global quality that become both visible and accessible to other societal agents, and to what extent global opportunities are shaped and used by a multiplicity of global societal agents around the world.

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73 Stammer and others (n 17); Engels and others (n 17).

74 Aykut, Wiener, Zengerling and others (n 19).

75 Joana Setzer and Lisa C Vanhala, 'Climate change litigation: A review of research on courts and litigants in climate governance' (2019) 10(3) WIREs Climate Change 1, 11 with further references; Anke Wonneberger and Rens Vliegthart, 'Agenda-Setting Effects of Climate Change Litigation: Interrelations Across Issue Levels, Media, and Politics in the Case of Urgenda Against the Dutch Government' (2021) 15 Environmental Communication 699.

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Appendix

Table 1 – Effects of Climate Cases on Legal Resources of the Global Opportunity Structure

	Resources, some of which provided by other social drivers (=>) of climate action ^a	Effects on resources (scripts and repertoires) of climate action
Legal resources	<i>Milieudefensie and others v Royal Dutch Shell PLC</i>	
	<ul style="list-style-type: none"> • Dutch Civil Code • ECHR and ICCPR • Prior case law: <i>Urgenda</i>, UNHRC decisions (=> climate litigation) • Paris Agreement (=> UN climate governance) • In conjunction with attribution science (=> knowledge production) 	<ul style="list-style-type: none"> • (Unwritten) duty of care for companies enshrined in national law can be interpreted with the help of the Paris Agreement, human rights conventions and prior case law to encompass a duty of private companies to reduce CO₂ emissions by at least net 45% until 2030 based on 2019 levels; the responsibility extends to the whole company group; it refers to scope 1, 2 and 3 emissions • New building blocks for future climate litigation, eg reference to scope 1-3 emissions may become a supportive argument for the pending case <i>Greenpeace and others v Norway</i>^b (ECHR) • Strengthening of <i>Urgenda</i> ruling and UNHRC decisions as precedents and thus human rights dimension in line of argument • Risk: becomes a negative precedent if the case will be lost on appeal; however, even if lost it might create building blocks for future climate litigation
	<i>Neubauer and others v Germany</i>	
	<ul style="list-style-type: none"> • German Basic Law • Prior case law (=> climate litigation) • German Federal Climate Protection Act (=> climate-related regulation) • Paris Agreement (=> UN climate governance) • In conjunction with attribution science (=> knowledge production) 	<ul style="list-style-type: none"> • Fundamental rights can oblige national legislators based on legislation that acknowledges the targets of the Paris Agreement to pursue climate neutrality by 2050 and to regulate detailed emission reduction pathways up until 2050 • There is an intertemporal dimension in the fundamental right to freedom and the state objective of environmental protection ('intertemporal guarantees of freedom'); GHG emission reduction obligations cannot be offloaded onto the future • References to international case law support legal argument; building up of 'common denominators' • More stringent Federal Climate Protection Act (climate neutrality by 2045) and detailed sectoral emission reduction pathways as an example for legislators in other jurisdictions (at all levels)

a Engels and others (n 17) 25.

b *Greenpeace and others v Norway*, App no 34068/21 (ECHR, 10 January 2022).

Table 2 - Part 1: Effects of Climate Cases on Socio-Political, Economic, and Scientific Resources of the Global Opportunity Structure

	Resources, some of which provided by other social drivers (=>) of climate action	Effects on resources (scripts and repertoires) of climate action
	<i>Neubauer and others v Germany;</i> <i>Milieudefensie and others v Royal Dutch Shell PLC</i>	
Socio-political resources	Paris Agreement (=> global climate governance)	<ul style="list-style-type: none"> • Interpretation and implementation of PA is strengthened, it affects not only duties of states but also duties of companies • General strengthening of the value of international law • Agenda-setting for states and companies: Paris targets count • New narrative: companies can be bound to Paris targets
	Emerging strategic litigation networks	<ul style="list-style-type: none"> • Strengthened strategic litigation networks, shows relevance of transnational exchange on legal strategies; building up of a transnational repertoire of legal arguments; emerging training initiatives for lawyers
	Network capacities provided by environmental NGOs and climate movement (=> climate protests)	<ul style="list-style-type: none"> • Successes may strengthen NGO's mobilization capacities: eg more members joining, enhanced fundraising opportunities, enhanced legitimacy of claims • Successes may give NGOs more political and legal weight in climate discourse as they may be perceived as serious stakeholders for litigation and political influence • Risk: Involvement of NGOs may increase perceived politicization of climate litigation • Risk: Backlash in the form of politicization of judicial nominations, negative reporting on court decisions, political counter-movements, etc.
	Existing media frames on climate governance, especially on state and corporate responsibility in global warming (=> journalism)	<ul style="list-style-type: none"> • Successful agenda-setting via both cases, climate litigation as a topic in mainstream media • Establishes media narratives on state and firm responsibility in causing global warming and necessity of state and private climate action • NGOs are using social media to their advantage, create a narrative against Shell and mobilization capacities likely increase through broader reach of the public unfiltered by traditional media • Risk with regard to <i>Shell</i> case: media coverage will be focused on appeal; may weaken the narrative, especially if the case is lost

Table 2 - Part 2: Effects of Climate Cases on Socio-Political, Economic, and Scientific Resources of the Global Opportunity Structure

	Resources, some of which provided by other social drivers (=>) of climate action	Effects on resources (scripts and repertoires) of climate action
	<i>Neubauer and others v Germany;</i> <i>Milieudefensie and others v Royal Dutch Shell PLC</i>	
Economic resources	Corporate climate responsibility (=> corporate responses, transnational climate governance/corporate action)	<ul style="list-style-type: none"> • If implemented by <i>Shell</i>: new standard for how a carbon major and its whole company group significantly reduce GHG emissions by 2030 accounting for scope 1, 2, and 3 emissions • Agenda-setting: state net zero targets with sectoral emission reduction pathways including industry sector and respective legislation will require industry sector to reach net zero as well • Agenda-setting: climate litigation against private actors is enabled, private actors are now aware they are 'on the hook' and have a responsibility to reduce GHG emissions in line with the Paris targets • Likely to support fossil fuel divestment • New standards for corporate carbon disclosure and voluntary reduction commitments; extension to whole company group and encompassing scope 1, 2, and 3 emissions
Scientific resources	Packaged knowledge (=> knowledge production) Corporate disclosure (=> corporate responses)	<ul style="list-style-type: none"> • Scientific community sees importance of climate science for litigation • Likely to trigger production of new data on state and corporate action, transparency of state and corporate archives