



Faculty of Law

Lund university

August Carlsson

Private Climate Litigation A viable tool for climate justice?

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Supervisor: Johannes Somsen

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Summary

This essay concerns private climate litigation as a tool through which victims of loss and damage can access climate justice. Anthropogenic climate change is already today causing substantial harm to people and communities all over the world. The people living in the Global South are particularly vulnerable to this harm due to geographical location and limited access to funds and technologies needed to adapt to the changing climate. The societies of the Global North, however, are less exposed but have contributed to historical global greenhouse gas emissions to a far larger extent. This constitutes climate injustice. To remove this injustice, people in the Global South need ways to access compensation for permanent losses and temporary damage, *loss and damage*, caused by climate change. In 2022, the parties to the UNFCCC decided to establish a fund for loss and damage, but whether the fund will work to provide compensation is still unknown. This thesis therefore explores private climate litigation as a potential tool for climate justice and studies whether the increased number of climate litigation cases offer prospects of increased numbers of loss and damage victims accessing climate justice.

Private climate litigation is the practice of filing lawsuits aimed at exerting pressure on private entities. The litigation explored in this thesis is aimed at establishing liability for major emitters and thus making them liable to pay compensation to victims of loss and damage. The major emitters in this thesis are Carbon Majors, which are companies that Richard Heede has managed to link to specific shares of global historical emissions. This thesis examines private climate litigation primarily based on three cases, *Kivalina v. ExxonMobil*, *New York v. BP*, and *Lliuya v. RWE*. The two first cases are American, and the last case is German. The study of the three cases shows that successful private climate litigation in the USA seems distant since the US courts uphold the Political Question Doctrine which identifies climate change as a political issue for which the courts cannot attribute liability. The situation for climate litigation is better in Germany where one court has accepted a lawsuit that claims compensation for loss and damage risks. The final judgement in the case is still pending.

The thesis concludes that the potential of private climate litigation to succeed depends to a large extent on the national jurisdiction in which the litigation takes place. The practical difficulties for individuals to file cases in foreign countries might also affect its potential as a tool for climate justice. However, the progress in climate research illustrated by the Carbon Majors report and other work has increased chances of successful litigation. If climate litigation succeeds to establish liability to pay compensation for GHG emissions to loss and damage victims, this could have a major effect for individuals and for the development of international climate law.

Preface

First and foremost, I would like to express my outmost gratitude to Prof. Johannes Somsen for his work as my tutor. It has been a pleasure and a privilege!

Därefter skulle jag vilja tacka Anna, David, Fredrik, Hampus, Jakob och Johanna för er hjälp och ert sällskap under vårens arbete med uppsatsen.

Abbreviations

SSP	Shared Socioeconomic Pathways
NOAA	National Oceanic and Atmospheric Administration
SIDS	Small island developing states
GHG	Greenhouse gases
CO ₂	Carbon dioxide
UNFCCC	United Nations Framework Convention on Climate Change
COP	Conference of the Parties
L&D	Loss and damage
IPCC	International Panel on Climate Change
SO ₂	Sulphur dioxide
°C	Degrees Celsius
US	United States
USA	United States of America
BGB	<i>Bürgerliches Gesetzbuch</i> (German Civil Code)
BImSchG	Bundes-Immissionsschutzgesetz (Federal Emission Control Act)
USD	United States Dollar
EUR	Euro
EPA	Environmental Protection Agency
M ³	Cubic metre
GMST	Global mean standard temperature
ELAW	The Environmental Law Alliance

1 Introduction

1.1 Background

This thesis concerns the increasing number of climate cases brought to courts all around the world. That climate change is happening and that it is caused by human activities is today beyond doubt.¹ The rate at which humans have warmed the planet is unprecedented in the last 2000 years,² the warming has already led to increased precipitation, an increase in mean seawater level and a retreat of the world's glaciers, the Arctic Ice Sheet and the Greenland Ice Sheet.³ At a 1.5 °C warming of the planet, extreme weather events will increase and every addition 0.5 °C warming beyond this point will lead to increases in the frequency of heatwaves, heavy precipitation and droughts.⁴ How much global temperatures will increase towards the end of the century is hard to predict, but current estimates point towards 2.7 °C, assuming a SSP2-4.5 scenario,⁵ which some researchers point towards being the most likely.⁶ Regardless of what scenario the world will experience by the end of the century, there will be massive costs related to global warming all over the world.⁷ This is illustrated by the mapping of cost and frequency of extreme weather events in the USA in 2022, carried out by the US National Oceanic and Atmospheric Administration (NOAA).⁸ They concluded that already in 2022 there were 18 extreme weather events in the USA and that each resulted in costs of over 1 billion USD.⁹

However, while catastrophes related to climate change, such as extreme weather events involve high monetary costs and human trauma wherever

¹ IPCC 2021, *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2021) 4.

² *ibid* 6.

³ *ibid* 5.

⁴ *ibid* 15.

⁵ IPCC 2022: 'Summary for Policymakers', *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press 2022) 13.

⁶ Zeke Hausfather and Glen P Peters, 'Emissions – the “Business as Usual” Story Is Misleading' (2020) 577 *Nature* 618.

⁷ Christopher Flavelle, 'Climate Change Could Cut World Economy by \$23 Trillion in 2050, Insurance Giant Warns' *The New York Times* (22 April 2021) <<https://www.nytimes.com/2021/04/22/climate/climate-change-economy.html>> accessed 2 May 2023.

⁸ Adam B Smith, 'U.S. Billion-Dollar Weather and Climate Disasters, 1980 - Present (NCEI Accession 0209268)' <<https://www.ncei.noaa.gov/archive/accession/0209268>> accessed 15 March 2023.

⁹ *ibid*.

they occur, some countries are more vulnerable to these events than others.¹⁰ The University of Notre Dame in the USA has mapped which countries are most vulnerable to the effects of climate change and their work shows that the clear majority of the most vulnerable countries are situated in the Global South.¹¹ Especially vulnerable amongst these are small island developing states (SIDS).¹² The countries that are deemed least vulnerable are countries in the Global North, such as the USA, Canada, the European countries, Japan and Russia.¹³ There are also other countries deemed less vulnerable not located in the Northern Hemisphere, such as the United Arab Emirates, Brunei, and New Zealand.¹⁴ Generally speaking, the countries deemed least vulnerable are rich and thus have the financial capacity to adapt to a changing climate.¹⁵

Furthermore, the countries of Europe and North America that today are more resilient to climate change, both due to their wealth and to their geographical location, are countries that industrialised early and that have built their economic welfare on industrial development.¹⁶ The industrial revolution was based on fossil fuels, first coal and later oil and these fuels still account for 84 % of the world's energy consumption.¹⁷ The burning of fossil fuels leads to CO₂ being released into the atmosphere, which is the driving factor for anthropogenic climate change.¹⁸ The Global North's early industrialisation means today that these countries, and especially the countries of Europe and North America, have disproportionately contributed to historical global industrial emissions of greenhouse gases, henceforth referred to as GHG, especially CO₂.¹⁹ Thus, many of the countries that are today most vulnerable to the effects of climate change, have contributed

¹⁰ Marketing Communications: Web // University of Notre Dame, 'Rankings // Notre Dame Global Adaptation Initiative // University of Notre Dame' (*Notre Dame Global Adaptation Initiative*) <<https://gain.nd.edu/our-work/country-index/rankings/>> accessed 15 March 2023.

¹¹ *ibid.*

¹² *ibid.*

¹³ '60 Second Guide to: Global North South Divide' (*Royal Geographical Society*) <<https://www.rgs.org/schools/teaching-resources/60-second-guide-to-global-north-south-divide/>> accessed 20 May 2023.

¹⁴ Dame (n 10).

¹⁵ 'GDP per Capita (Current US\$) | Data' <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?most_recent_value_desc=true> accessed 15 March 2023.

¹⁶ 'History of Europe - The Industrial Revolution | Britannica' <<https://www.britannica.com/topic/history-of-Europe/The-Industrial-Revolution>> accessed 2 May 2023.

¹⁷ Hannah Ritchie, Max Roser and Pablo Rosado, 'Energy mix' (2022) Our World in Data <<https://ourworldindata.org/energy-mix>> accessed 2 May 2023.

¹⁸ OAR US EPA, 'Basics of Climate Change' (15 April 2021) <<https://www.epa.gov/climatechange-science/basics-climate-change>> accessed 2 May 2023.

¹⁹ 'Who Has Contributed Most to Global CO₂ Emissions?' (*Our World in Data*) <<https://ourworldindata.org/contributed-most-global-co2>> accessed 20 April 2023.

very little to global historical industrial emissions of CO₂.²⁰ They are therefore forced to deal with problems today that they are not responsible for creating. They have also not been able to benefit from the economic growth that these emissions have led to in the same way that the Global North has. Hence, there is an asymmetry between the states and people who have caused the problem of climate change and the states and people who suffer most of the consequences.

The unequal distribution of the benefits and burdens of fossil fuel driven development that has occurred since the 18th century gives rise to a problem of environmental injustice, and more precisely climate injustice. Environmental justice is understood here as the theory that explores the unequal distribution of environmental benefits and burdens, the societal procedures creating environmental injustice and who is recognised in such procedures.²¹ Climate justice is understood as environmental justice applied to the issue of climate change.²² These concepts are further explored in chapter two.

Framed within the context of climate justice, the problem that is evident here is the asymmetry between the beneficiaries and the victims of atmospheric pollution through GHG. To bridge this justice gap, victims should be able to access environmental justice in the form of compensation for loss and damage (L&D). L&D is understood here as the permanent loss and short-term damage caused by climate change that is experienced by the victims of destructive events.²³ This concept is further explored in chapter three. The vehicle serving justice explored in this thesis is strategic private climate change litigation. Climate change litigation, henceforth simply *climate litigation*, in a general sense is litigation that has climate change as the central issue.²⁴ Strategic private climate litigation is directed at private companies to exercise pressure on these.²⁵ Strategic private climate litigation is referred to simply as private climate litigation throughout the thesis. What makes climate litigation important and interesting is that it puts individuals at the centre and empowers them to pursue environmental

²⁰ ‘Who Has Contributed Most to Global CO₂ Emissions?’ (*Our World in Data*) <<https://ourworldindata.org/contributed-most-global-co2>> accessed 20 April 2023.

²¹ Gordon Walker, *Environmental Justice: Concepts, Evidence and Politics* (Routledge 2011) 10.

²² Philip Coventry and Chukwumerije Okereke, ‘Climate Change and Environmental Justice’, *The Routledge Handbook of Environmental Justice* (Routledge 2017) 363.

²³ Meinhard Doelle and Sara L. Seck, ‘Introducing Loss and Damage’ in Meinhard Doelle and Sara L. Seck (eds), *Research handbook on Climate Change Law and Loss & Damage* (Edward Elgar Publishing Limited 2021) 1.

²⁴ Jacqueline Peel and Hari M Osofsky, ‘Climate Change Litigation’ (2020) 16 *Annual Review of Law and Social Science* 21, 23–24.

²⁵ Geetanjali Ganguly, Joana Setzer and Veerle Heyvaert, ‘If at First You Don’t Succeed: Suing Corporations for Climate Change’ (2018) 38 *Oxford Journal of Legal Studies* 841, 843.

justice, bypassing obstacles that are typically associated with state-centred international law and politics.²⁶ Climate litigation could in this way be a means to access compensation, but hopefully also affect international law and corporate behaviour, thus helping to mitigate climate change and to help vulnerable people adapt to the changing climate. The concept of climate litigation is further explored in chapter four.

1.2 Purpose and Research Question

The purpose of this thesis is to explore climate litigation as a tool to provide access to climate justice. The focus of this investigation is the potential for climate litigation to help victims of climate change L&D to acquire financial means to take preventive measures and as compensation for L&D from private parties deemed liable for substantial GHG emissions. The research question is: *does the increased number of climate litigation cases offer prospects of increased numbers of L&D victims accessing climate justice?*

1.3 Delimitations

This thesis covers three important concepts in environmental justice, namely distributive justice, procedural justice, and justice as recognition.²⁷ Distributive justice is understood as the notion of environmental justice that is concerned with the material distribution of environmental burdens and benefits within a community.²⁸ Procedural justice concerns the ability of individuals and organisations to participate in the process of environmental policy and decision making.²⁹ Justice as recognition is justice “conceived in terms of who is given respect and who isn’t valued”.³⁰ All these concepts together with climate justice are further explored in chapter two of the thesis.

This thesis studies all concepts of environmental justice in relation to climate change, which is the focus of the thesis. There are many other interesting and important topics of environmental justice not related to climate change that could be studied further. However, to secure a clear focus on the issue of climate change, such topics are largely excluded from the thesis or only mentioned briefly. Procedural justice is studied with a clear focus on access to justice. Access to justice is understood here to mean the possibility to challenge decision making to protect environmental rights.³¹ Other topics of procedural justice that are less relevant to this thesis

²⁶ Maiko Meguro, ‘Litigating Climate Change through International Law: Obligations Strategy and Rights Strategy’ (2020) 33 *Leiden Journal of International Law* 933, 935.

²⁷ Walker (n 21) 10.

²⁸ *ibid.*

²⁹ Derek Bell and Jayne Carrick, ‘Procedural Environmental Justice’, *The Routledge Handbook of Environmental Justice* (Routledge 2017) 101.

³⁰ Walker (n 21) 10.

³¹ *ibid.* 49.

are therefore excluded from the thesis or only mentioned briefly. Justice as recognition will be discussed with a focus on who has standing and who is denied recognition in relation to the courts.

L&D can include many different sources and types of harm.³² In this thesis, L&D is understood as harm occurring due to climate change related events. Examples of climate change related events are glacial melting, as in the *Lliuya v. RWE* case, and increased damage from storms due to changed weather pattern, as in the *Kivalina v. ExxonMobil* case.³³ A broad definition of L&D that includes ecological and cultural harm and that includes claimants acting on behalf of future generation and non-humans would be very interesting to study.³⁴ The conflict between the interests of societies today and the interests of future generations are illustrated in many climate litigation cases, such as the Swedish Aurora case.³⁵ However, in the private climate litigation cases that fit the research question of this thesis, cases that bring up the issue of future generations have not been available. However, the cases studied includes historical emissions as a relevant factor for pursuing L&D. Previous generations' emissions and how they should be considered today is an inter-generational topic of discussion in chapter two. The relevant aspects of L&D for this thesis are only harm that can be financially quantified and claimed by legal persons, such as individuals and cities. The same applies for compensation. Preventive measures and compensation for such measures are, however, relevant for this thesis. Thus, not only compensation for harm that has already occurred is studied, but also cases were the claimant risks severe harm and claims damages to adapt to these risks.

In its exploration of climate litigation, this thesis focuses on private climate litigation as opposed to public climate litigation. Private climate litigation is understood as climate litigation aimed at exerting pressure on private entities such as corporations.³⁶ Public climate litigation on the other hand, is directed at public entities such as national governments.³⁷ Both these concepts are developed further in chapter four. It is also important to distinguish between private climate litigation aimed at climate mitigation and litigation aimed at establishing liability to pay for L&D, this thesis focuses on the latter. Many important cases in public climate litigation have been central to the development of climate litigation as a field of law and will be mentioned briefly, but they have often been concerned primarily

³² Meinhard Doelle and Sara L. Seck (n 23) 1–6.

³³ *Luciano Lliuya v RWE AG* [Pending] District Court Essen 2 O 285/15; *Native village of Kivalina, and City of Kivalina vs ExxonMobil Corporation, et al* [2009] United States District Court of Northern California Oakland Division C 08-1138 SBA.

³⁴ Meinhard Doelle and Sara L. Seck (n 23) 5–9.

³⁵ *Anton Foley and others v Sweden (Aurora Case)* (Nacka District Court).

³⁶ Ganguly, Setzer and Heyvaert (n 25) 843.

³⁷ *ibid.*

with climate mitigation by targeting government inaction in reducing GHG emissions.³⁸ This is a very important part of climate litigation, but due to this thesis' different focus, public climate litigation largely falls outside of the scope of this thesis.

1.4 Method and Material

In this thesis, the legal doctrinal method as it is described by Jan Kleineman in the second chapter of the book *Juridisk metodlära* is used.³⁹ The basis for a legal doctrinal method is the use of established sources of law and it is often centred around a concrete problem statement.⁴⁰ According to Kleineman, a legal doctrinal analysis has the aim of analysing different legal sources so that the result of the analysis represents the substance of established law.⁴¹ The thesis uses both *de lege lata* argumentation and *de lege ferenda* argumentation. *De lege lata* aims to describe established law, while *de lege ferenda* rather takes aim at describing how it ought to be.⁴² The majority of the thesis is written *de lege lata* but *de lege ferenda* is also used in the discussion sections and in the conclusion.

To answer the research question stated above, scholarly material on environmental justice, L&D and climate litigation are studied to define and understand the connection between the three concepts. The main body of material studied consists of academic literature and articles. The books have been found and selected through Lund university's search function for literature LubCat.⁴³ Here, books that lie close to the topics of environmental justice, L&D and climate litigation have been studied. More recent books have been prioritised over older literature. The articles have been found through Lubsearch and Google Scholar.⁴⁴ Articles published by professors of law and other academic in the field of environmental law have been given priority.

National German law and US law is studied to understand the legal context in which the case law is situated. Also, international law in the form of the United Nations Framework Convention on Climate Change, henceforth the UNFCCC and subsequent Conference of the Parties, henceforth COP,

³⁸ Ganguly, Setzer and Heyvaert (n 25) 843–844.

³⁹ Jan Kleineman, 'Rättsdogmatisk metod' in Fredric Korling and Mauro Zamboni (eds), *Juridisk metodlära* (Studentlitteratur AB 2013) 21.

⁴⁰ *ibid* 21–23.

⁴¹ *ibid* 26.

⁴² *ibid* 36.

⁴³ 'LUBcat-Katalog' <<https://lubcat.lub.lu.se/>> accessed 12 May 2023.

⁴⁴ 'LUBsearch | Biblioteken vid Lunds universitet' <<https://www.lub.lu.se/sok/lubsearch>> accessed 12 May 2023; 'Google Scholar' <<https://scholar.google.com/>> accessed 12 May 2023.

decisions.⁴⁵ The international climate law regime concerning L&D is relevant since the debate about L&D have developed within this structure since the early 1990s in the international climate negotiations.⁴⁶ It is also relevant since international climate law and treaties has the possibility to affect private law and vice versa.⁴⁷ Later in this thesis, the ways in which climate litigation and the international treaties on L&D could interact are discussed, therefore a presentation of these treaties are required.

Finally, three cases are studied in detail two from the US cases and one from Germany. These are studied to draw conclusions about the obstacles that climate litigators face and whether climate litigation works as a tool to access L&D compensation. The three cases are *Kivalina v. ExxonMobil*,⁴⁸ *New York v. BP*,⁴⁹ and *Lliuya v. RWE*.⁵⁰ The cases have been accessed through the Climate Change Litigation Databases.⁵¹ *Kivalina v. ExxonMobil* was an early case and therefore portrays the initial problems that private climate litigation faced. By analysing the more recent *New York v. BP* case, it is possible to draw conclusion about the development of private climate litigation in the US and whether the initial obstacles faced in the *Kivalina v. ExxonMobil* case persist within the US legal order. The *Lliuya v. RWE* case has been studied since it is a very recent case, it is currently still pending. However, it is an important case because the German appeals court accepted the case, marking the first time in private climate litigation that the idea of corporate liability to pay monetary damages for GHG emissions has been accepted.⁵² By studying this case, the potential of climate litigation can be discussed and the situation for climate litigation in the USA and in Germany compared.

Germany and the USA are both highly suitable jurisdictions for the purpose of this thesis. Germany is relevant since it is the home of the *Lliuya v. RWE* case and since it is one of the world's ten largest economies and an

⁴⁵ Linda Siegele, 'Loss and Damage under the Convention' in Meinhard Doelle and Sara L. Seck (eds), *Research handbook on Climate Change Law and Loss & Damage* (Edward Elgar Publishing Limited 2021) 75.

⁴⁶ *ibid.*

⁴⁷ Cf. Andreas Hösli, 'Milieudéfensie et al. v. Shell: A Tipping Point in Climate Change Litigation against Corporations?' (2021) 11 *Climate Law* 195, 203–205.

⁴⁸ '*Kivalina v. ExxonMobil* (n 33).

⁴⁹ *City of New York v BP p.l.c* [2018] United States District Court Southern District of New York 1:18-cv-00182.

⁵⁰ *Luciano Lliuya v. RWE AG* (n 33).

⁵¹ 'Climate Change Litigation Databases - Sabin Center for Climate Change Law' (*Climate Change Litigation*) <<http://climatecasechart.com/>> accessed 22 May 2023.

⁵² 'The significance of climate litigation for the political debate on Loss & Damage' 5 <https://www.germanwatch.org/sites/default/files/PolicyBrief_L%26D.pdf> accessed 11 May 2023.

industrial nation with large historical GHG emissions.⁵³ Similarly, the USA is the world's largest economy, with a large carbon footprint.⁵⁴ The USA is also the birthplace of the environmental justice movement,⁵⁵ and it is the country with the largest amount of filed climate lawsuits.⁵⁶ Therefore, it is possible to analyse the development of climate litigation in the USA by studying an early of climate litigation case and compare it with a recent case. Since these are both major economies in the Global North, the possibility to access L&D compensation in these countries would have a direct impact on addressing climate injustices between the Global North and Global South alluded to above.

1.5 Structure

The thesis consists of six chapters.

The second chapter concerns the notion of environmental justice. An introduction to the concept and environmental justice movement is provided. Distributive justice, procedural justice, and justice as recognition are then each presented and explained. Climate justice is also introduced. Finally, to the relationship between private climate litigation and environmental justice is explained as well as the relevance of the three key concepts distributive justice, procedural justice, and justice as recognition.

The third chapter introduces the concept L&D. The regulation of L&D in international climate treaty law is presented thereafter. Finally, a brief introduction to L&D in private law is provided. The section ends with a brief discussion.

The fourth chapter defines and explains the concept of climate litigation. The scientific development that has impacted climate litigation is also discussed. Thereafter, the conditions for climate litigation in Germany and in the USA are presented and discussed preparing for the study of the three cases in the next chapter. Finally, an analysis of the chapter concludes the chapter.

The fifth chapter analyses the three cases that inform this thesis: the *Kivalina* case, the *New York v. BP* case, and the *Lliuya v. RWE* case. The two first cases originate from the USA and the last case is German.

⁵³ 'Who Has Contributed Most to Global CO2 Emissions?' (n 19); 'World Economic Outlook (April 2023) - GDP, Current Prices' <<https://www.imf.org/external/datamapper/NGDPD@WEO>> accessed 16 May 2023.

⁵⁴ 'Who Has Contributed Most to Global CO2 Emissions?' (n 19); 'World Economic Outlook (April 2023) - GDP, Current Prices' (n 53).

⁵⁵ Esme G Murdock, 'A History of Environmental Justice: Foundations, Narratives, and Perspectives', *Environmental Justice* (Routledge 2020) 7.

⁵⁶ The significance of climate litigation for the political debate on Loss & Damage' (n 52) 4.

Chapter six contains a general analysis of the findings. The research question is answered, and the hypothesis of the thesis discussed. Finally, the broad implications of the conclusions for climate justice are discussed.

2 Environmental Justice

2.1 Introduction

In this chapter the concept of environmental justice is introduced, and a brief overview of the environmental justice movement's history is presented. The three concepts, distributive environmental justice, procedural environmental justice, and climate justice are presented and explained. Finally, a discussion of the presented facts is given. The aim of this chapter is to provide the reader with an understanding of the context that informs this thesis and to further explain how environmental justice, and especially climate justice is understood in connection to this thesis.

Environmental justice as a term had become commonly used in the USA in the 1980s.⁵⁷ It refers originally to a movement closely linked with the Civil Rights Movement in the USA.⁵⁸ It is associated with events where communities of colour, mainly African American communities in the Southern states, protested against what they perceived as unfair land use that resulted in their communities being overburdened with environmental externalities, such as landfills, chemical waste dumps and oil refineries, being located in their communities.⁵⁹ This in turn led to their communities being overly exposed to certain environmental ills linked to toxics and pollution from fossil fuel and petrochemical industries⁶⁰. A landmark event in the history of the environmental justice movement were the 1982 demonstrations against the siting of a PCB landfill in Warren County in North Carolina⁶¹. The protests in Warren County were followed by other important events, such as United Church of Christ (UCC) Commission for Racial Justice's report "Toxic Wastes and Race in the United States" published in 1987, which showed that many communities of colour in the US were located in environmentally degraded areas due to unfair siting practices.⁶² This led to the acknowledgment of an important principle of the environmental justice movement in the US, namely the notion of environmental racism which "identifies the unfair distribution of benefits and costs associated with industrial development and production based on racial criteria, which compounds societal inequalities".⁶³ This movement, which started with a clear focus on race and environmental justice in the

⁵⁷ Murdock (n 55) 7.

⁵⁸ *ibid.*

⁵⁹ *ibid.*

⁶⁰ *ibid.*

⁶¹ *ibid.*

⁶² *ibid* 8.

⁶³ *ibid.*

USA, has since grown as a movement and academic field of research to encompass a broad range of issues all over the world.⁶⁴

2.2 Definition

To define environmental justice, one important preliminary observation is that it is not the same as ecological justice.⁶⁵ Environmental justice is concerned with relations between people and not between people and nature and non-humans.⁶⁶ Some scholars want to include future generations into the sphere of environmental justice, while some deem it less important.⁶⁷ The issue of future generations as a stakeholder in environmental justice is important and interesting, but due to considerations of time and space this thesis focuses on *intragenerational* justice. Historically, environmental justice has focused on distributive justice, and on how to best distribute certain goods within society.⁶⁸ However, today scholars such as Gordon Walker⁶⁹ and David Schlosberg⁷⁰ identify more aspects to environmental justice that need to be addressed in pursuit of environmental justice. Walker identifies three concepts of environmental justice, these are *distributive justice*, *procedural justice*, and *justice as recognition*.⁷¹ To understand environmental justice, these three concepts, distributive justice, procedural justice, and justice as recognition need to be discussed first. Next, climate justice as a specialised field of environmental justice is discussed.

2.3 Distributive Environmental Justice

Distributive justice is a central aspect of environmental justice and has been described as its “chief topic”.⁷² It is justice conceived in terms of the distribution of goods and bads, or resources on the one hand and harm and risk on the other.⁷³ According to Walker, to construct a *claim* about distributive justice, three questions must be addressed.⁷⁴ This thesis will not discuss the claim mechanism, but these three questions are important

⁶⁴ Henry Shue, *Climate Justice: Vulnerability and Protection* (Oxford University Press 2014) 2.

⁶⁵ Walker (n 21) 10.

⁶⁶ *ibid.*

⁶⁷ *ibid.*

⁶⁸ David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (Oxford University Press 2007) 3.

⁶⁹ ‘Gordon Walker’ <<https://www.lancaster.ac.uk/lec/about-us/people/gordon-walker>> accessed 12 May 2023.

⁷⁰ ‘Professor David Schlosberg’ (*The University of Sydney*) <<https://www.sydney.edu.au/research/our-researchers/academic-staff/david-schlosberg.html>> accessed 12 May 2023.

⁷¹ Walker (n 21) 10.

⁷² *ibid.* 42.

⁷³ *ibid.* 10.

⁷⁴ *ibid.* 42.

nonetheless and useful for the purpose of situating this thesis within the concept of environmental justice.⁷⁵

A preliminary question that needs to be address is *who* the recipients of environmental justice are.⁷⁶ This involves determining a “community of justice”, this is the community or group within which the environmental justice is to be distributed.⁷⁷ This can involve both a spatial and temporal dimension and could thus be the population of a country or all people living on earth, including future generations.⁷⁸

It is also necessary to establish *what* is to be distributed.⁷⁹ This includes burdens such as air pollution, flood risk, waste, and benefits such as access to water, green space, energy, etc.⁸⁰ Important, too, is the valuation of what is to be distributed, which may require the interpretation of complex and ambiguous data and other sources of information.⁸¹

Finally, the principle of distribution must also be made concrete.⁸² This is a subject of much debate in the literature and many principles exist, such as the principle of equity, a merit-based approach or an approach based on causal relationship.⁸³ These three issues, the community of justice, what is to be distributed and according to what principle, are revisited later in this chapter.

2.4 Procedural Environmental Justice

Procedural environmental justice concerns the process of environmental policy and decision making.⁸⁴ According to Derek Bell⁸⁵ and Jayne Carrick,⁸⁶ today “gross inequalities of political authority, power and influence remain the norm in environmental decision-making”.⁸⁷ One reason for this is that the costs and benefits of the decisions that affect the environment are not equally shared by the people who take the decisions

⁷⁵ *ibid.*

⁷⁶ *ibid.*

⁷⁷ *ibid.*

⁷⁸ *ibid.*

⁷⁹ *ibid* 43.

⁸⁰ *ibid.*

⁸¹ *ibid* 44.

⁸² *ibid.*

⁸³ *ibid* 45.

⁸⁴ Bell and Carrick (n 29) 101.

⁸⁵ ‘Staff Profile | School of Geography, Politics and Sociology | Newcastle University’ <<https://www.ncl.ac.uk/gps/staff/profile/derekbell.html>> accessed 12 May 2023.

⁸⁶ ‘Carrick, Jayne, Dr’ (17 April 2023) <<https://www.sheffield.ac.uk/politics/people/academic-staff/jayne-carrick>> accessed 12 May 2023.

⁸⁷ Bell and Carrick (n 29) 101.

and the people who are affected by them.⁸⁸ Instead, the people making the decisions are often the ones who also enjoy the benefits, while the people carrying the burdens of them have little to no say in decision making.⁸⁹ An important aspect of procedural justice is access to justice.⁹⁰ Access to justice focuses on the legal possibilities to challenge decision making and to protect environmental rights.⁹¹ For this thesis, access to justice is understood as the possibility to receive compensation for an environmental injustice through the courts.

2.5 Justice as Recognition

The third important concept of environmental justice is justice as recognition.⁹² This concept can be defined as justice “conceived in terms of who is given respect and who is and isn’t valued”.⁹³ Justice as recognition aims to identify failures in societal institutions to acknowledge or respect differences and views this as a source of systematic wrongdoing.⁹⁴ An example of this is the situation faced by the Isle de Jean Charles Band of Biloxi-Chitimacha-Choctaw Native American Tribe. They live on an island in Southern Louisiana.⁹⁵ Since they have not been recognised by the US government, they have been excluded from coastal restoration projects carried out by US Army Corps.⁹⁶ They are therefore experiencing a rapid loss of land on the island on which they live due to erosion and sea level rise. The island is expected to disappear totally within 30-40 years.⁹⁷ This example illustrates a case of societal misrecognition.⁹⁸ Central to this misrecognition are institutional and cultural processes, which disrespect and marginalise some people compared to others.⁹⁹ The issue of recognition is evident also in climate litigation, which becomes clear in the course of the case study further below in the thesis. The importance of justice as recognition in relation to legal standing and thereby access to justice is studied below in chapter five. It will be shown that frequently victims of L&D are not recognised as relevant by the institutions, i.e., the courts. A failure in justice as recognition can therefore result in an inability to access climate justice for victims of L&D.

⁸⁸ Bell and Carrick (n 29) 101.

⁸⁹ *ibid.*

⁹⁰ Walker (n 21) 49.

⁹¹ *ibid.*

⁹² *ibid.* 10.

⁹³ *ibid.*

⁹⁴ Kyle Whyte, ‘The Recognition Paradigm of Environmental Injustice’, *The Routledge Handbook of Environmental Justice* (Routledge 2017) 117.

⁹⁵ *ibid.* 120.

⁹⁶ *ibid.* 120–121.

⁹⁷ *ibid.*

⁹⁸ *ibid.* 118.

⁹⁹ Walker (n 21) 50.

2.6 Climate Justice

Since its inception in the US, the notion of environmental justice has expanded to also address the issue of justice in climate change.¹⁰⁰ As is discussed in the introduction, the central issue regarding justice and climate change is the acknowledgement that developing countries, which have contributed very little to the historical release of GHG emissions, will to a large extent face the most severe consequences of the problem.¹⁰¹ Initially, some scholars tried to apply the Polluter Pays Principle to this emerging environmental justice problem, referring to the industrialised countries as the polluters that must pay for the pollution of the atmosphere that they have caused, much like a situation with a polluted lake or river.¹⁰² However, this principle was later considered lacking due to the complex nature of climate change with a large number of emitters that emitted GHG during a long period of time, making the polluters and the sources of pollution hard to distinguish.¹⁰³ As is discussed later in this, essay however, new research today might have changed this situation and made polluters and sources of pollution more distinguishable.¹⁰⁴ However, another perspective of the situation was developed to address the problems of the Polluter Pays Principle, namely “the beneficiary pays” principle.¹⁰⁵

The idea of this principle is as follows. The developed countries have accrued disproportionately large benefits, in comparison to the developing countries, from the carbon intensive economies that they have developed in the wake of the industrial revolution.¹⁰⁶ The resulting harm from GHG emissions that have been a key part in obtaining this wealth is now affecting and will continue to affect the developing countries of the world to a larger extent than it is affecting and will affect the developed countries of the world.¹⁰⁷ This is in large part due to the fact that the developed world is better equipped technologically and economically to handle the resulting problems of climate change.¹⁰⁸ Since the developed countries have benefited from creating a problem which will now affect other countries that have not benefitted as much from the processes that have created the problem, this principle claims that these countries now have a duty to assist the people bearing the burden.¹⁰⁹ Henry Shue also presents this idea in his book

¹⁰⁰ Coventry and Okereke (n 22) 363.

¹⁰¹ *ibid.*

¹⁰² *ibid* 363–364.

¹⁰³ *ibid* 364.

¹⁰⁴ Cf. Richard Heede, ‘Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010’ (2014) 122 *Climatic Change* 229.

¹⁰⁵ Coventry and Okereke (n 22) 364.

¹⁰⁶ *ibid.*

¹⁰⁷ *ibid.*

¹⁰⁸ *ibid.*

¹⁰⁹ *ibid.*

Climate Justice.¹¹⁰ He supports this idea due to two reasons: because it is fair and because it provides a good incentive.¹¹¹ He describes it thus:

“If whoever makes a mess receives the benefits and does not pay the costs, not only does he have no incentive to avoid making as many messes as he likes, but he is also unfair to whoever does pay the costs.”¹¹²

This, he says, gives rise to a principle of equity, which he describes in the following way:

“When a party has in the past taken an unfair advantage of other by imposing costs on them without their consent, those who have been unilaterally put at a disadvantage are entitled to demand that in the future the offending party shoulder burdens that are unequal at least to the extent of the unfair advantage previously taken, in order to restore equality.”¹¹³

Dubbed the “beneficiary pays principle” by Philip Coventry¹¹⁴ and Chukwumerije Okereke¹¹⁵, the principle provides the normative basis for climate justice. Since the principle provides the moral underpinning for the thesis, some arguments against this principle of climate justice are presented below as well as rebuttals to them.

One argument is that the process of industrialisation has also benefited the developing countries of the world, giving them access to new technologies in the fields of agriculture, medicine, water purification etc.¹¹⁶ Shue argues however, that even if this is the case, it does not change the problem of equity established above.¹¹⁷ This is since the developing countries have paid for all benefits that they have received and they have been left with a heavy burden of debt trying to access the good things that industrialisation have produced.¹¹⁸ Furthermore, some scholars consider the historical context of colonialism to be relevant to the idea of climate justice and that it further adds to the validity of the beneficiary pays principle.¹¹⁹ This reasoning places an ecological debt on the countries of the Global North, not only for their GHG emissions but also for the other types of environmental damage

¹¹⁰ Shue (n 64) 182.

¹¹¹ *ibid* 183.

¹¹² *ibid*.

¹¹³ *ibid*.

¹¹⁴ ‘Our Team | Community Energy England’ <<https://communityenergyengland.org/pages/team-members>> accessed 12 May 2023.

¹¹⁵ ‘Staff Biographies’ <https://www.reading.ac.uk/climate-justice/Staff_biographies> accessed 12 May 2023.

¹¹⁶ Coventry and Okereke (n 22) 364.

¹¹⁷ Shue (n 64) 184.

¹¹⁸ *ibid*.

¹¹⁹ Coventry and Okereke (n 22) 364.

they have caused in developing countries as well as their exploitative extraction and use of natural resources in the Global South.¹²⁰ This means that the extreme inequality in wealth that exist between the Global North and South is tied to colonial history and that the economic growth of Europe and North America did not happen in a bubble.¹²¹ Thus, not only have all the benefits been paid for by the developing countries, many economic benefits have also been taken directly from them.

Another argument against the principle described above is that global GHG emissions have been taking place for a long time and due to a large number of emitters, and the effects of the emissions have not been known during this whole period of time.¹²² Shue describes it as the environmental damage having been done unintentionally.¹²³ He thereafter maintains that it is the general conception, that someone cannot be held responsible for harmful effects that could not be foreseen.¹²⁴ Here, though he makes a distinction between punishing someone for an unforeseen effect and holding someone responsible for something.¹²⁵ He thus argues that to hold someone responsible for something they could not foresee is common, even though punishing them is not.¹²⁶ Furthermore, Heede's research shows that around 50% of global historical GHG emissions have taken place since 1986, when the consequences of the emissions were well known.¹²⁷

The third critique of the principle is that it is not fair to hold someone responsible for damage that caused by others.¹²⁸ This is applied to people living in the Global North, who should not be forced to pay reparations for their ancestors' GHG emissions.¹²⁹ Shue counters this argument by arguing that even though the generations now living in the developed world are not responsible for the emissions of their ancestors, they are still benefiting from these emissions in the form of a high standard of living, not enjoyed by many in the developing countries.¹³⁰ Therefore, the people living in the Global North today are not disconnected from the emissions of their ancestors since the consequences and benefits cross over from one generation to the next.¹³¹

¹²⁰ Coventry and Okereke (n 22) 364.

¹²¹ *ibid.*

¹²² *ibid.*

¹²³ Shue (n 64) 184.

¹²⁴ *ibid.*

¹²⁵ *ibid* 184–185.

¹²⁶ *ibid.*

¹²⁷ Heede (n 104) 229.

¹²⁸ Shue (n 64) 185.

¹²⁹ *ibid.*

¹³⁰ *ibid* 185–186.

¹³¹ *ibid.*

2.7 Discussion

Based on the analysis above, it is now important to determine how this thesis is connected to the concept of climate justice and in doing so, to determine how strategic private climate litigation, which is climate litigation brought to exert pressure on corporations,¹³² ties into environmental justice.

Firstly, the issue of L&D and climate litigation evidently has climate change as its central issue, situating it within the topic of climate justice. Climate justice revolves around the beneficiary pays principle which, it is important to remember, is not a legal principle but a moral principle. It is used throughout the thesis as a benchmark when there is a need to compare the present legal context to the preferred legal context. The preferred legal context is a context where the beneficiary pays principle is fully realised.

This thesis is clearly tied to distributive justice and a community of justice therefore must be defined. This community again flows from the beneficiary pays principle - and it is a global community of GHG emitters who are benefiting economically from their emissions - and those who are experiencing adverse consequences. The beneficiaries are represented by large energy companies in the cases discussed in this thesis. These are companies that have become incredibly wealthy by heavily contributing to global warming. These are also the defendants in the cases presented further below. The claimants in the cases have been harmed by global warming without having benefitted from the causes of it. In the cases, what is to be distributed can vary. A central case to this thesis, *Lliuya v. RWE*, concerns the distribution of on the one hand the benefit of energy production and the revenue produced from it, and on the other hand the burden of flood risk and the costs associated with it. In this case, however, as in the other cases that are studied the relevant metric for valuating both the burden and the benefit is monetary. As for the principle of distribution, this thesis premisses that the beneficiary pays principle is the basis on how this distribution should take place. This means that re-distribution should occur benefitting victims of L&D at the expense of large energy companies.

Procedural justice is an additional key concept necessary for an understanding of climate justice. Procedural justice is both at the roots of this problem and at the same time provides a possible solution to it. It is at the roots of the problems since those who are taking and have taken decisions to perform activities that lead to high emissions of GHG have done so without involving the Global South that now bears the burdens of the impacts. Thus, there is no incentive to curb GHG emissions. However, procedural justice is this thesis advances climate litigation as a potential driver of climate justice which presupposes access to justice. Through

¹³² Ganguly, Setzer and Heyvaert (n 25) 843.

climate litigation, the hope is that the victims of L&D can access compensation. In this way procedural justice and distributive justice are intertwined.

Justice as recognition, the third pillar of climate justice, is close related to procedural justice. Who is deemed to matter by the courts and who is not has a profound effect on climate justice. Hence, it is only by being recognised that victims of L&D can argue their case and in turn access compensation and thereby justice.

3 Loss and Damage

3.1 Introduction

In this chapter the concept L&D is explained. First, L&D as a concept is defined and delimited. Thereafter, L&D is placed in the context of international climate law in the UNFCCC. The notion of L&D within private law is then discussed. Finally, an analysis of L&D and its usefulness and potential for climate justice is discussed. This chapter shows how L&D is a potentially useful concept for the purpose of climate justice.

3.2 Definition

The concept of loss and damage (L&D) is widely used in scholarly literature and in the UN climate regime, but the latter has left the concept undefined.¹³³ This thesis relies on the work of Meinhard Doelle¹³⁴ and Sara L. Seck.¹³⁵

They observe that the concept L&D entails two different types of harm from climate change, which are separately *loss* and *damage*.¹³⁶ Loss refers in this case to permanent harm, such as loss of landmass due to the rise of seawater levels.¹³⁷ Damage refers to harm that is reparable or that can be recovered.¹³⁸ A broad range of harm could potentially be relevant to the concept L&D.¹³⁹ This includes ecological and cultural harm as well as pure economic harm.¹⁴⁰ Doelle and Seck argue that it is vital, especially for communities of Indigenous people, that ecological and cultural harm are included in the concept L&D.¹⁴¹ Due to practical limitations this thesis, focuses on damage that can be clearly quantified economically, however.

Since this thesis concerns compensation for L&D, it is also relevant to discuss what type of remedies can potentially serve to compensate victims that have suffered harm from climate change.¹⁴² As is the case when harm is to be determined, remedies cannot always be quantified and perceived in

¹³³ Meinhard Doelle and Sara L. Seck (n 23) 1.

¹³⁴ ‘In Memoriam: Meinhard Doelle (1964-2022)’ (*Dalhousie University*) <https://www.dal.ca/faculty/law/news-events/news/2022/09/21/in_memoriam__meinhard_doelle__1964_2022_.html> accessed 18 April 2023.

¹³⁵ ‘Sara Seck’ (*Dalhousie University*) <<https://www.dal.ca/faculty/law/faculty-staff/our-faculty/sara-seck.html>> accessed 18 April 2023.

¹³⁶ Meinhard Doelle and Sara L. Seck (n 23) 1.

¹³⁷ *ibid.*

¹³⁸ *ibid.*

¹³⁹ *ibid* 4–6.

¹⁴⁰ *ibid.*

¹⁴¹ *ibid.*

¹⁴² *ibid* 9–10.

monetary terms.¹⁴³ In the field of public climate litigation, a concept explained further in chapter four, the remedies often include declarations and injunctions to prevent unwanted actions and consequences, such as in the case of *Urgenda*, in which a Dutch court imposed a more stringent emissions reduction target on the government of the Netherlands.¹⁴⁴ However, harm could in many cases be compensated through fines or damages that can be quantified in monetary terms, which is the focus of this thesis.¹⁴⁵

There are many potential claimants of L&D.¹⁴⁶ States or communities within a state, such as indigenous communities could claim compensation for L&D, and so could also individuals, companies, or other non-state actors.¹⁴⁷ Furthermore, not only humans could suffer from L&D and therefore theoretically be eligible for compensation, such non-humans could include nature in general, animals or ecosystems.¹⁴⁸ This thesis however focuses on what could be considered conventional claimants in civil law cases, such as individuals and subnational entities such as cities. In the presentation below of L&D in international law, states are understood to be the primary relevant claimants.

Finally, the frame that ought to be relevant also is of great importance for the question what L&D can engage compensation. It could be argued that the baseline for L&D should be when the international effort to reduce GHG emissions began in 1990.¹⁴⁹ However, for this thesis the relevant time will be from the start of the industrial revolution to the present day. This follows from the beneficiary pays principle, since the injustice that is evident today is a product of earlier GHG emissions that started during the Industrial Revolution in the Global North.¹⁵⁰ The economic inequality caused by these persist just as the GHG emitted also persist in the atmosphere where they cause climate change.¹⁵¹

3.1 L&D in International Climate Law

This thesis focuses on private climate litigation. However, the international agreements concerning L&D are still relevant in this context because, as described above, the debate about L&D has developed as a theme since the early 1990s in the international climate negotiations.¹⁵² Ways in which

¹⁴³ Meinhard Doelle and Sara L. Seck (n 23) 9-10.

¹⁴⁴ *ibid.*

¹⁴⁵ *ibid.*

¹⁴⁶ *ibid* 6–9.

¹⁴⁷ *ibid.*

¹⁴⁸ *ibid.*

¹⁴⁹ *ibid* 5.

¹⁵⁰ ‘Who Has Contributed Most to Global CO2 Emissions?’ (n 19).

¹⁵¹ *ibid.*

¹⁵² Linda Siegele (n 45) 75.

climate litigation and international treaties on L&D interact are discussed later in the thesis. Before doing so, a short presentation of these treaties is therefore required.

3.1.1 Loss and Damage in the UNFCCC

The framework for international climate law is the UNFCCC, adopted on the 9th of May 1992.¹⁵³ It was acknowledged already in the UNFCCC that countries with certain geographical traits are especially vulnerable to climate change.¹⁵⁴ The need for developing countries to take the lead in the work to curb GHG emissions and that they had a historical responsibility for emitting large quantities of GHG was also established.¹⁵⁵ However, the UNFCCC did not include any reference to L&D and therefore contains no binding rules on compensation to developing countries.¹⁵⁶ Before the negotiations on the UNFCCC began, the Alliance of Small Island States had already established discussions about L&D.¹⁵⁷

However, in 2013, the Warsaw International Mechanism for Loss and Damage (WIM) was adopted.¹⁵⁸ The three functions of the WIM are:

- Addressing gaps in the understanding of and expertise in approaches to address loss and damage.¹⁵⁹
- Providing leadership on the assessment and implementation of approaches to address loss and damage and cooperation and collaboration across relevant work and activities at all levels.¹⁶⁰
- Enhancing action and support, including finance, technology, and capacity-building, to address paragraph 6, directly linking action and support under the Convention and the WIM to the activities listed in paragraph 6 of the Doha decision.¹⁶¹

The WIM thus became the first proper document of international law that addressed L&D, but it did not lead to any real commitments regarding financing or to that the developed countries accepted responsibility to compensate for the damages of their large historical emissions of GHG.

3.1.2 Loss and Damage in the Paris Agreement

¹⁵³ United Nations Framework Convention on Climate Change 1992, art. 26

¹⁵⁴ Linda Siegele (n 45) 76.

¹⁵⁵ *ibid.*

¹⁵⁶ *ibid.*

¹⁵⁷ *ibid* 75.

¹⁵⁸ *ibid* 94.

¹⁵⁹ *ibid* 95–96.

¹⁶⁰ *ibid* 96.

¹⁶¹ *ibid.*

Leading up to the Paris Agreement, a coalition of developing countries from the Southern hemisphere,¹⁶² together with China, pushed for L&D inclusion into the Paris Agreement.¹⁶³ However, many developed countries opposed this and initially the two blocs could not agree on a solution.¹⁶⁴ Finally a compromise was found, and L&D was included in the Paris agreement under Article 8.¹⁶⁵ In that provision, the importance of averting and minimising L&D is recognised,¹⁶⁶ but in a separate provision found in decision 1/CP.21, paragraph 51, the COP agreed that Article 8 does not involve or provide a basis for any liability or compensation.¹⁶⁷ It is therefore clear that the UN climate regime did not adequately address the need for L&D to provide climate justice to millions of people.

3.1.3 Loss and Damage at COP 27

However, at COP 27 in Sharm El-Sheikh in Egypt, the contracting parties of the UNFCCC managed to agree on the creation of a fund for L&D compensation to benefit developing countries.¹⁶⁸ The decision reads as follows:

“[The COP] decides to establish new funding arrangements for assisting developing countries that are particularly vulnerable to the adverse effects of climate change, in responding to loss and damage, including with a focus on addressing loss and damage by providing and assisting in mobilizing new and additional resources, and that these new arrangements complement and include sources, funds, processes and initiatives under and outside the Convention and the Paris Agreement”.¹⁶⁹

This agreement has been hailed as a milestone in the development of L&D and as a milestone for climate justice.¹⁷⁰ If the fund described above succeeds in providing funding to vulnerable countries as it aims to do, it could have a significant impact on addressing the problem of climate injustice that is the foundational issue of this thesis. However, the decision

¹⁶² ‘About the Group of 77’ <<http://www.g77.org/doc/index.html#aim>> accessed 17 March 2023.

¹⁶³ Linda Siegele, ‘Loss and Damage under the Paris Agreement’, *Research handbook on Climate Change Law and Loss & Damage* (Edward Elgar Publishing Limited 2021) 101–102.

¹⁶⁴ *ibid.*

¹⁶⁵ *ibid* 103; Paris Agreement 2015, art. 8

¹⁶⁶ *ibid.*

¹⁶⁷ ‘Report of the Conference of the Parties on Its Twenty-First Session, Held in Paris from 30 November to 11 December 2015. Addendum. Part Two: Action Taken by the Conference of the Parties at Its Twenty-First Session.’ para. 51.

¹⁶⁸ ‘Report of the Conference of the Parties on Its Twenty- Seventh Session, Held in Sharm El-Sheikh from 6 to 20 November 2022. Addendum’ decision 2.

¹⁶⁹ *ibid* decision 2.2.

¹⁷⁰ Arthur Wyns, ‘COP27 Establishes Loss and Damage Fund to Respond to Human Cost of Climate Change’ (2023) 7 *The Lancet Planetary Health* e21, 21.

has also attracted criticism, warning that it could take a very long time before compensation is actually paid by the countries that now promise to do so.¹⁷¹ E.g., , Roger Pielke Jr, professor in the environmental studies program at the University of Colorado Boulder, expressed criticism of the desire of the rich countries of the world to actually contribute money to the fund, claiming that arguments could go on for years before payments are made.¹⁷² It could be speculated that the decision to create a fund may in part have been spurred by gains made by climate litigants in cases such as *Lliuya v. RWE* and within other fields of climate litigation. The relation between climate litigation and is further discussed in chapter six. Regardless, the decision made at COP 27 should be seen as a promising step in making compensation for L&D a reality.

3.2 L&D in Private Law

Whether the fund that was agreed upon at COP 27 will provide compensation to victims of L&D or not for remains unknown for the time being. Therefore, other venues to access L&D remain necessary to explore. The field of private law could in theory provide possibilities for L&D compensation to be accessed by victims, even though this field of law also contains many obstacles for claimants.¹⁷³ Some court cases have shown hopeful signs, such as *Milieudéfensie*.¹⁷⁴ *Milieudéfensie* is a Dutch court case in which the District Court of the Hague ordered the energy company Royal Dutch Shell to substantially cut its emissions.¹⁷⁵ This was an unprecedented case that shows that companies can be held accountable for their emissions.¹⁷⁶ If this accountability can be extended, not only to include an obligation to mitigate emissions, but to also include liability for emissions in a private law context, this field of law could provide a meaningful venue to access L&D compensation.

3.3 Discussion

In the simplest of terms, it can be said that climate injustices occur when the beneficiary pays principle is not being fulfilled. L&D is a useful concept in the fight against climate injustice, which in turn is a manifestation of failures to comply with the beneficiary pays principle. With the term L&D,

¹⁷¹Mahase E, ‘Climate Change: “Loss and Damage” Fund Payouts Could Take Decades, Scientists Warn’ (BMJ, 21 December 2022) <<https://www.bmj.com/lookup/doi/10.1136/bmj.o3050>> accessed 4 May 2023.

¹⁷² *ibid.*

¹⁷³ Florentina Simlinger and Benoit Mayer, ‘Legal Responses to Climate Change Induced Loss and Damage’ in Reinhard Mechler and others (eds), *Loss and Damage from Climate Change: Concepts, Methods and Policy Options* (Springer International Publishing 2019) 182–183

¹⁷⁴ *Milieudéfensie et al v Royal Dutch Shell plc* [2021] District Court of the Hague C/09/571932 / HA ZA 19-379.

¹⁷⁵ *ibid* Judgement para 5.3.

¹⁷⁶ Hösli (n 47) 1.

a broad range of issues connected to climate injustice above can be addressed. These could otherwise have been understood as isolated harm due to natural disasters in different places of the world. Now they are instead framed as a global problem of climate change and justice, and a problem that involves transnational liabilities. With a clear notion of what the injustice consists of and what therefore should be compensated, the L&D, it is also possible to make claims for compensation.

4 Climate Change Litigation

4.1 Introduction

This chapter introduces and defines the phenomenon of climate litigation, which can be divided into two ‘waves’. To provide a basis for the next chapter, in which three cases of private climate litigation are presented and analysed, this chapter also briefly explores the barriers and possibilities that exist for climate litigation in the USA and in Germany. The aim of this chapter is to contextualise the cases studied in chapter five.

4.2 Definition

Climate litigation is a relatively new field of law and a clear and generally agreed upon definition has not yet appeared and different scholars and practitioners are using different definitions.¹⁷⁷ One definition that provides some help in understanding the concept is provided by Geetanjali Ganguly,¹⁷⁸ Joana Setzer¹⁷⁹ and Veerle Heyvaert,¹⁸⁰ it states that:

“Climate litigation is a broad and still maturing term that refers to the rapidly growing body of lawsuits in which climate change and its impacts are either a contributing or key consideration in legal argumentation and adjudication.”¹⁸¹

Another definition is provided by David Markell¹⁸² and JB Ruhl¹⁸³ and is as follows:

“[...] any piece of federal, state, tribal, or local administrative or judicial litigation in which the party filings or tribunal decisions directly and expressly raise and issue of fact or law regarding

¹⁷⁷ Alogna I, Bakker C and Gauci J-P, ‘Chapter 1 Climate Change Litigation: Global Perspectives—An Introduction’, *Climate Change Litigation: Global Perspectives* (Brill | Nijhoff 2021).

¹⁷⁸ ‘Geetanjali Ganguly | LinkedIn’ <<https://www.linkedin.com/in/geetanjali-ganguly-a5503835/?originalSubdomain=au>> accessed 5 May 2023.

¹⁷⁹ ‘Joana Setzer’ (*Grantham Research Institute on climate change and the environment*) <<https://www.lse.ac.uk/granthaminstitute/profile/joana-setzer/>> accessed 5 May 2023.

¹⁸⁰ ‘Veerle Heyvaert’ (*London School of Economics and Political Science*) <<https://www.lse.ac.uk/law/people/academic-staff/veerle-heyvaert/home.aspx>> accessed 5 May 2023.

¹⁸¹ Ganguly, Setzer and Heyvaert (n 25) 843.

¹⁸² ‘David L. Markell (1953-2021) | College of Law’ <<https://law.fsu.edu/faculty-staff/david-markell>> accessed 5 May 2023.

¹⁸³ ‘J.B. Ruhl | Faculty | Law School | Vanderbilt University’ <<https://law.vanderbilt.edu/bio/jb-ruhl>> accessed 5 May 2023.

the substance or policy of climate change causes and impacts.”¹⁸⁴

Both these definitions capture a broad range of cases. Jacqueline Peel¹⁸⁵ and Hari Osofsky¹⁸⁶ discuss this broad range of cases found in many definitions of climate litigation and to help distinguish between the different cases, they constructed a definition with four layers.¹⁸⁷ The four layers are:

- “Litigation with no specific climate change framing but with implications for mitigation or adaptation, e.g., fracking cases”.¹⁸⁸
- “Litigation with climate change as one motivation but not raised as an issue, e.g., cases against coal brought on environmental grounds”.¹⁸⁹
- “Litigation with climate change as a peripheral issue”.¹⁹⁰
- “Litigation with climate change as the central issue”.¹⁹¹

The cases discussed in this thesis belong to the fourth category, as they have climate change as a central issue.

Going back to the article by Ganguly et al., they include yet another useful distinction, namely “strategic climate litigation”.¹⁹² These are cases that are raised with the purpose of “exerting pressure” on either corporations or governments.¹⁹³ Furthermore, they also draw a distinction between public and private climate litigation.¹⁹⁴ Public climate litigation is directed at public institutions such as governments, and private climate litigation refers to litigation directed at private institutions, such as companies.¹⁹⁵ Using these terms, it is possible to identify origin of the definition for the focus of this thesis, namely *strategic private climate litigation*, since the lawsuits

¹⁸⁴ David Markell and JB Ruhl, ‘An Empirical Assessment of Climate Change In The Courts: A New Jurisprudence Or Business As Usual?’ (2012) 64 Florida Law Review 15, 27.

¹⁸⁵ Laura Screen, ‘Professor Jacqueline Peel’ (*Melbourne Law School*, 20 January 2023) <<https://law.unimelb.edu.au/about/staff/jacqueline-peel>> accessed 12 May 2023.

¹⁸⁶ ‘Hari M. Osofsky, Faculty Profiles, Faculty & Research: Northwestern Pritzker School of Law’ <<https://www.law.northwestern.edu/faculty/profiles/harimosofsky>> accessed 12 May 2023.

¹⁸⁷ Peel and Osofsky (n 24) 23–24. See image at page 24.

¹⁸⁸ *ibid* 24.

¹⁸⁹ *ibid*.

¹⁹⁰ *ibid*.

¹⁹¹ *ibid*.

¹⁹² Ganguly, Setzer and Heyvaert (n 25) 843.

¹⁹³ *ibid*.

¹⁹⁴ *ibid*.

¹⁹⁵ *ibid*.

studied are lawsuits brought to exert pressure on corporations to provide L&D compensation.

4.3 History of Climate Litigation

4.3.1 First Wave of Climate Litigation

Ganguly et al. divide the history of private climate litigation into two waves, the first and the second.¹⁹⁶ The first wave occurred between 2005 and 2015 and the cases were characterised by claimants often failing to overcome certain issues, such as the political nature of their claims which made the courts unwilling to rule them admissible, the problem of standing and the problem of showing a causal link between the defendant's action and the harm suffered by the claimant.¹⁹⁷ One of these early cases that failed was *Kivalina v. ExxonMobil*,¹⁹⁸ which is presented in chapter 5.

4.3.2 Second Wave of Climate Litigation

When they published their article, no private climate litigation case had yet succeeded to establish liability to pay monetary compensation for GHG emissions for a major emitter.¹⁹⁹ However, Ganguly et al., still argued that the scientific, discursive, and constitutional contexts had evolved to clear a path for future successful climate litigation.²⁰⁰ Their predictions regarding the significance of scientific developments have materialised, which will be explained below.

In the scientific field, a major development affecting climate litigation is the publication of two scientific papers that have greatly impacted the ability to scientifically attribute historical GHG emissions to specific entities, both corporate and governmental.²⁰¹ The first was titled *Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854-2010*,²⁰² henceforth referred to as the *Carbon Majors report*, the second was the report titled *The rise in global atmospheric CO₂, surface temperature, and sea level from emissions traced to major carbon producers*.²⁰³

What the first paper managed to establish was that nearly two thirds of all CO₂ and methane emissions, 63%, have been emitted by a total of 90

¹⁹⁶ Ganguly, Setzer and Heyvaert (n 25) 842.

¹⁹⁷ *ibid* 846–849.

¹⁹⁸ '*Kivalina v. ExxonMobil* (n 33) *Kivalina*' (n 48).

¹⁹⁹ Ganguly, Setzer and Heyvaert (n 25) 849.

²⁰⁰ *ibid*.

²⁰¹ *ibid* 852, 854.

²⁰² Heede (n 104).

²⁰³ B Ekwurzel and others, 'The Rise in Global Atmospheric CO₂, Surface Temperature, and Sea Level from Emissions Traced to Major Carbon Producers' (2017) 144 *Climatic Change* 579.

traceable entities, 50 investor-owned companies, 31 state owned and 9 current or former centrally planned states.²⁰⁴ 56 of the companies produce crude oil and natural gas, 37 work with coal extraction and 7 of the companies are cement producers.²⁰⁵ Half of the emissions have been emitted since 1986,²⁰⁶ during a period when the risks of fossil fuels in relation to climate change were well known to many petroleum companies.²⁰⁷ The second paper, aimed to build on the first one by attempting to pinpoint how much the Carbon Majors had contributed to the rise in global mean standard temperature (GMST) and the rise in global sea level (GSL).²⁰⁸ What the paper found was that the combustion of the Carbon Majors products between 1880 and 2010 led to a 0.4 increase in GMST, of which an increase in GMST of 0.28 degrees comes from the combustion of their products in the period between 1980 and 2010.²⁰⁹

The publication of the first study was hailed by many as a turning point in the ability to attribute responsibility for climate change and in the possibility for climate litigants to identify specific defendants.²¹⁰ The Environmental Law Alliance (ELAW) claimed in their report on climate litigation from 2014, that the Carbon Majors report “removes a previously insurmountable hurdle for grassroots lawyers seeking to hold major carbon emitters accountable.”²¹¹ The work has been relied on in many climate litigation cases since it was published, including in the *Lliuya v. RWE* case that is presented below.²¹² It can thus be concluded that the developments in climate science in the Carbon Majors report and the subsequent report hopefully means substantive progress for private climate litigation. In the analysis below the prospects of this coming to fruition is discussed and in the study of the cases whether the hopes for the second wave of private climate litigation have substance is analysed.

4.4 National Conditions for Strategic Private Climate Litigation

²⁰⁴ Heede (n 104) 231–235.

²⁰⁵ *ibid* 231.

²⁰⁶ *ibid* 229.

²⁰⁷ G Supran, S Rahmstorf and N Oreskes, ‘Assessing ExxonMobil’s Global Warming Projections’ (2023) 379 *Science* 63, 1.

²⁰⁸ Ekwurzel and others (n 203) 580–581.

²⁰⁹ *ibid* 585.

²¹⁰ Ganguly, Setzer and Heyvaert (n 25) 853.

²¹¹ ‘Holding Corporations Accountable for Damaging the Climate’ (Environmental Law Alliance Worldwide 2014) <<https://www.elaw.org/holding-corporations-accountable-for-damaging-the-climate-elaw-report-2014>> accessed 5 May 2023

²¹² Ganguly, Setzer and Heyvaert (n 25) 853.

To prepare for the cases discussed in chapter 5, this section briefly discusses climate litigation in the context of the US and German legal orders.²¹³

4.4.1 Germany

This section serves an understanding of the *Lliuya v. RWE* case discussed later in the thesis. This section is divided into claims based on negligence and claims based on private nuisance.

4.4.1.1 Negligence

The central rule of German delict is § 823, para. 1 of the BGB, which is the German Civil Code.²¹⁴ This rule “provides a damages claim for loss of, or damage to, a legally protected good (e.g. property) that is attributable to a person who is at least negligent.”²¹⁵ Whether there is a factual causation, that is a causation in the “logical or scientific sense” is determined by the *conditio sine qua non* formula, also known as the “but for test”.²¹⁶ This test is central for establishing causation in climate litigation test and is explained thus by Hans-Joachim Koch,²¹⁷ Michael Lührs, and Roda Verheyen²¹⁸:

“According to this test, an event is to be viewed as a cause if, without it, the result, in its specific form, would not occur. The act of an offender is therefore still a cause even if it in itself could not result in the damage but only in combinations with the actions of another (so-called cumulative causation).”²¹⁹

Despite this quite broad view of causation, the authors claim that the German legal literature views the issue of causation as one the biggest obstacles for climate litigation in Germany.²²⁰ However, it is important to distinguish between two parts of the process of showing causation.²²¹ The first part, showing a causal chain between GHG emissions and global warming is not believed to be very hard and can probably be realised by referring to an IPCC report.²²² The hard part is showing that specific losses occurred because of global warming.²²³ This is since global warming leads to more severe effects of pre-existing extreme weather phenomena, rather

²¹³ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen, ‘Germany’, *Climate Change Liability* 399.

²¹⁴ *ibid* 400; Bürgerliches Gesetzbuch (German Civil Code) 1900 § 823 para. 1.

²¹⁵ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 400.

²¹⁶ *ibid*.

²¹⁷ Internetredaktion, ‘Koch, Hans-Joachim, RiOVG. D. Prof. Dr. iur.’ <<https://www.jura.uni-hamburg.de/die-fakultaet/personenverzeichnis/koch-hans-joachim.html>> accessed 22 May 2023.

²¹⁸ ‘Executive Board’ (*Green Legal Impact Germany e.V.*) <<https://www.greenlegal.eu/en/executive-board/>> accessed 22 May 2023.

²¹⁹ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 400.

²²⁰ *ibid*.

²²¹ *ibid* 403.

²²² *ibid*.

²²³ *ibid*.

than create new ones that can be easily attributed to climate change.²²⁴ This, however, means that certain geographical or weather events are easier to connect to climate change than others, such as sea level rise and related storm flood damage.²²⁵

To be held liable however, it does not suffice to show factual causation, German case law also requires that the loss is covered by the liability rule.²²⁶ It is considered sufficient “if the occurrence of the relevant type of loss, when viewed retrospectively and in objective terms, was not completely improbable, or if its probability was increased by more than only an insignificant amount.”²²⁷ According to the Koch et al., a claim about climate harm would probably be seen as sufficient.²²⁸

However, even if a claim about L&D can show that it is covered by a liability rule, the GHG emissions that are causing the L&D could still be considered justified and therefore not attributable to negligence.²²⁹ This is regulated in § 906 BGB.²³⁰ This rule states that a landowner needs to tolerate damage that is either insignificant or, to the extent that it arises from the customary use of another property, cannot be avoided by measures that are reasonable in terms of cost.²³¹ Koch et al. deem this rule as applicable to GHG emissions, as these are likely considered a customary land use.²³² Thus, the harm needs to be tolerated to the extent they it is not preventable through economic measures.²³³

What is to be considered preventable through economic measures is settled in § 276 para. 2 BGB which regulates negligence.²³⁴ Negligence, according to this rule, is the failure to exercise reasonable care.²³⁵ The standard set is that a person has not acted with reasonable care if the person has not undertaken necessary and reasonable action to avoid a foreseeable danger.²³⁶ Even though climate change for some time now undeniably has been a foreseeable danger, the question of reasonable care is complicated by the fact that most major emitters, such as coal powered energy plants, conduct their business with a license, which the Koch et al. believe would speak

²²⁴ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 403.

²²⁵ *ibid.*

²²⁶ *ibid* 405.

²²⁷ *ibid.*

²²⁸ *ibid.*

²²⁹ *ibid* 406–407.

²³⁰ *ibid*; Bürgerliches Gesetzbuch (German Civil Code) § 906.

²³¹ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 406–407.

²³² *ibid.*

²³³ *ibid.*

²³⁴ *ibid* 407–408; Bürgerliches Gesetzbuch (German Civil Code) § 276 para. 2.

²³⁵ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 408.

²³⁶ *ibid.*

against a finding of negligence by a court.²³⁷ In the case of the emitter being found negligent, a claimant has the possibility to claim reimbursement for property damages and other economic losses according to § 823 BGB.²³⁸

4.4.1.2 *Private Nuisance*

According to German civil law, anyone can demand that interferences with their property be ceased if there is no overriding interest in the activity that is causing the interference. However, many GHG emitters will probably succeed in showing an overriding interest in their activities.²³⁹ In such a case, the authors explain, the person with the endangered property can instead claim protective measures, both at the source but also at the point where the nuisance is taking place.²⁴⁰ Since the focus for this thesis is the access to compensation or preventive measures, the possibilities to get an operator to cease or decrease their emissions of GHG will not be further developed.

A claim for safety measures is based on § 14 1st sentence BImSchG.²⁴¹ The defendant may choose how it would want to remedy the damage, but the claimant could express the preferred option.²⁴² A safety measure in this case could be a dyke against sea water level rise or something similar.²⁴³ The advantage for a claimant is that they can be sure that the measure would remedy the damage or risk of damage, the costs can be specified in a precise way, and it is more manageable than trying to change running operations.²⁴⁴ However, using this method for L&D probably requires suing multiple emitters, since each emitter would only funds relative to their percentage share of historical global emissions.²⁴⁵

If the claimant cannot assert a right to safety measures because this is considered economically unreasonable, the claimant can instead make a claim for economic compensation pursuant to § 906 para. 2 2nd sentence BGB.²⁴⁶ This rule regulates compensation to property owner for disturbances that must be accepted due to a public interest.²⁴⁷ Full damages are not awarded in such a situation.²⁴⁸

²³⁷ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 407–408.

²³⁸ *ibid* 408–409; Bürgerliches Gesetzbuch (German Civil Code) § 823.

²³⁹ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 409.

²⁴⁰ *ibid* 410.

²⁴¹ *ibid* 411; Bundes-Immissionsschutzgesetz (Federal Emission Control Act) 1974 § 14 1st sentence.

²⁴² Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 411.

²⁴³ *ibid*.

²⁴⁴ *ibid* 411–412.

²⁴⁵ *ibid*.

²⁴⁶ *ibid* 412; Bürgerliches Gesetzbuch (German Civil Code) § 906 para. 2 2nd sentence.

²⁴⁷ Hans-Joachim Koch, Michael Lührs, and Roda Verheyen (n 213) 412.

²⁴⁸ *ibid*.

4.4.1.3 Discussion

Despite the many obstacles that can arise in showing causation between GHG emissions and a certain harm arising from a climate change related event, the German legal order with its quite generous regulation on causation for nuisance or negligence claims, could allow for climate litigation cases to go forward. Since the book relied on for this section was published in 2011, the progress made in attribution science from the Carbon Majors study also is likely to have helped overcome the issues with showing a causal link between a certain emitter and a certain climate related event. Since certain climate related natural events or processes, such as seawater level rise, are easier to connect to global warming, litigation connected to such events will probably also be easier to succeed with.

4.4.2 The United States of America

This section provides a similarly brief overview of the possibilities of private climate litigation in the US legal order. The US is relevant since it is where the first climate litigation cases were filed²⁴⁹ and it is the home of the environmental justice movement.²⁵⁰ Two of the cases studied later in this thesis derive from the US and it is thus relevant to explore the possibilities and hindrances for private climate litigation offered by US federal law. This thesis focuses on federal law since it takes precedent over state law in the climate litigation cases studied below. As a point of departure, the authors state that private climate litigation in a US context face many obstacles.²⁵¹ There are two kinds of *torts* that have been used in relation to climate litigation, public nuisance, and fraudulent misrepresentation.²⁵² In the overview presented here, the focus will be on public nuisance. Fraudulent misrepresentation is connected to conspiracy, the focus for fraudulent misrepresentation claims is not primarily GHG emissions but instead an effort to mislead about their consequences.²⁵³ Fraudulent misrepresentation thus falls somewhat outside the scope of this thesis and will not be further explored as a topic.

The injury public nuisance is a common law injury that is defined by the courts rather than by any national rule or statute.²⁵⁴ The definition for a public nuisance, is a “unreasonable interference with a right common to the general public”, this includes “significant interference with the public health, safety, morals, peace, or comfort, as well as conduct ‘of a continuing

²⁴⁹ Ganguly, Setzer and Heyvaert (n 25) 846–849.

²⁵⁰ Murdock (n 55) 7.

²⁵¹ Michael B Gerrard and Gregory E Wannier, ‘United States of America’ in Jutta Brunnée and others (eds), *Climate Change Liability: Transnational Law and Practice* (Cambridge University Press 2011) 579.

²⁵² *ibid* 579–580.

²⁵³ *ibid* 587–588.

²⁵⁴ *ibid* 580.

nature' that is detrimental to a public right".²⁵⁵ However, courts often decide what qualifies as a public nuisance on a case-by-case level.²⁵⁶ The right that is interfered with must also be a general right for the public and not a right held by a specific person or group of people.²⁵⁷ There is no requirement for the claimant to show negligence or maliciousness to establish liability.²⁵⁸ Public nuisance has been used during a long time to compensate victims of pollution when other environmental protective measures have been lacking.²⁵⁹ However, public nuisance is designed to provide compensation in areas of law where there is no legislation and therefore, in areas of law where there is applicable legislation, this legislation has priority.²⁶⁰

As of 2011, public nuisance claims were the largest group of climate lawsuits that had been filed.²⁶¹ One of the first ones, *Kivalina v. ExxonMobil*, is studied in detail in chapter 5. There are two major hurdles for these cases to overcome, the Political Question Doctrine and the issue of causation.²⁶²

4.4.2.1 *Political Question Doctrine*

The Political question Doctrine was created by the courts and has its origins in *Marbury v. Madison* from 1803.²⁶³ The doctrine prevents courts from hearing cases that may interfere with the other branches of government.²⁶⁴ This doctrine has made courts hesitant to enter into conflict with other branches of government, also where there is not clear jurisdictional conflict.²⁶⁵ This has affected climate litigation since courts have been unsure about the levels of GHG emissions that should be considered a public nuisance.²⁶⁶ This is due to the fact that many of the activities that cause the GHG emissions are both lawful and were also encouraged by the government during many years.²⁶⁷ However, in the *American Electrical Power* case, the question whether the political doctrine bars action on GHG emissions was brought to the Supreme Court, which 8-0 ruled that the Clean Air Act, which regulates interstate air pollution, displaced the ability to

²⁵⁵ Michael B Gerrard and Gregory E Wannier (n 251) 580.

²⁵⁶ *ibid.*

²⁵⁷ *ibid.*

²⁵⁸ *ibid.*

²⁵⁹ *ibid.*

²⁶⁰ *ibid* 581.

²⁶¹ *ibid* 580.

²⁶² *ibid* 590–591.

²⁶³ *ibid* 590; *William Marbury v James Madison, Secretary of State of the United States* [1803] United States Supreme Court 5 U.S. 137.

²⁶⁴ *ibid.*

²⁶⁵ *ibid.*

²⁶⁶ *ibid* 591.

²⁶⁷ *ibid.*

claim damages for GHG, thereby removing the possibility to seek such damages and upholding the doctrine.²⁶⁸

4.4.2.2 *Causation*

In common law tort claims, the claimant must show two kinds of causation: they must show that the action is a cause-in-fact and a proximate cause.²⁶⁹

Establishing factual causation means that “it has to be shown that the harm would not have occurred absent the conduct”.²⁷⁰ This does not require that the defendant’s actions are the only cause, many actors can all independently be considered as causing the relevant harm.²⁷¹

A proximate cause is a cause where legal causation can be established. Liability in legal causation is limited to “harms that result from the risks that made actor’s conduct tortious”.²⁷² This means that “parties are only liable for expected harms from their bad conduct”.²⁷³ However, unlikely harms are also included when the action was intentional or reckless.²⁷⁴ However, for negligent actions liability cannot be established if a contribution to a harm was merely trivial.²⁷⁵ As of 2011, it had not yet been established by the courts whether this standard of care could be applied to historical emissions of GHG.²⁷⁶

4.4.2.3 *Discussion*

The political question doctrine and a narrower view of what can be considered legal causation than, e.g., the German legal order, make it unlikely that private liability for GHG emissions in the US will be established by the courts. The Supreme Court’s decision not to exclude GHG emissions from the scope of the Political Question Doctrine probably means that this remains a substantial obstacle for climate litigation in the USA.

4.5 Discussion

Ganguly et al. remain optimistic about the potential of climate litigation due to increases in numbers of climate litigation cases and advances in climate

²⁶⁸ Michael B Gerrard and Gregory E Wannier (n 251) 583; *American Electric Power Co v Connecticut* [2011] United States Supreme Court No. 10–174; Clean Air Act (United States Code) 1990.

²⁶⁹ *ibid* 591.

²⁷⁰ *ibid* 592.

²⁷¹ *ibid*.

²⁷² *ibid*.

²⁷³ *ibid*.

²⁷⁴ *ibid*.

²⁷⁵ *ibid*.

²⁷⁶ *ibid*.

science.²⁷⁷ Some undoubtedly constitute important victories for climate litigation, such as *Milieudefensie*²⁷⁸ and *Urgenda*.²⁷⁹

However, there are others who disagree with this optimistic view. Ryan Gunderson²⁸⁰ and Claiton Fyock²⁸¹ argue that it is “unlikely that climate litigation will play a prominent role in tackling climate change” and that private climate litigation cases will continue to face hurdles.²⁸² They agree with Ganguly et al. that the first wave of private climate litigation failed, and that the scientific situation has since then developed, in part due to Carbon Majors.²⁸³ This could lower the obstacles litigants face in showing causality. However, it does not change the obstacles they face regarding procedural issues.²⁸⁴ One such hurdle is the Political Question Doctrine in the USA.²⁸⁵ This is further discussed in chapter six.

It is concluded that the progress in attribution science is a promising development for climate litigation, but that many hurdles remain. When emissions can be clearly traced to certain emitters, the argument that climate change is a multi-source pollution problem with too many polluters for it to be possible to single out an entity for the sake of compensation is no longer viable. Since the emissions can be quantified in such a way that a claimant can show exactly what percentage of global historical emissions a defendant is responsible for, it ought to be harder for a court to dismiss the claim on that ground. However, for climate litigation to become a valuable driver of climate justice, it must succeed in providing climate justice in practice, and not only be viable and correct in theory.

²⁷⁷ Ganguly, Setzer and Heyvaert (n 25) 864–854.

²⁷⁸ *Milieudefensie et al. v. Royal Dutch Shell plc.* (n 174).

²⁷⁹ *Urgenda Foundation v State of the Netherlands* [2019] District Court of the Hague [2015] HAZA C/09/00456689.

²⁸⁰ ‘Ryan Gunderson’ <<https://www.miamioh.edu/cas/academics/departments/sociology-gerontology/about/faculty-staff/ryan-gunderson/index.html>> accessed 5 May 2023.

²⁸¹ ‘Profile for Claiton Fyock at the University of Essex’ <<https://www.essex.ac.uk/people/fyock61601/claiton-fyock>> accessed 5 May 2023.

²⁸² Ryan Gunderson and Claiton Fyock, ‘The Political Economy of Climate Change Litigation: Is There a Point to Suing Fossil Fuel Companies?’ (2022) 27 *New Political Economy* 441, 443.

²⁸³ *ibid* 448.

²⁸⁴ *ibid*.

²⁸⁵ *ibid* 449.

5 Case Study

5.1 Introduction

In this chapter, three important private climate litigation cases are presented and analysed. The aim this study is to determine whether climate litigation works as a tool to provide climate justice. The first two cases are US cases, *Kivalina v. ExxonMobil*,²⁸⁶ and *New York v. BP*,²⁸⁷ and the third is German, *Lliuya v. RWE*.²⁸⁸ These cases are all cases of strategic private climate litigation.

5.2 Kivalina v. ExxonMobil et al.

The first case of the study is the case of *Kivalina v. ExxonMobil* which was filed in 2008.²⁸⁹ This case is of great importance since it was one of the first strategic private climate litigation cases in the USA and an early example of such a case being brought seeking monetary damages.²⁹⁰ It shows the legal barriers that climate litigants have to overcome in order to successfully file climate lawsuits in the USA and the case has also been referred to by courts in later climate litigation cases, such as in *New York v. BP*.²⁹¹ In this case, the Native Village of Kivalina together with the City of Kivalina, from here on both are collectively referred to simply as Kivalina, sued ExxonMobil and several other energy companies, for damages linked to climate change.²⁹² Kivalina is an Inuit village of about 400 people situated on the Northwest coast of Alaska.²⁹³

5.2.1 The Claim

Kivalina brought the action to the court to seek damages for the defendants' contribution to climate change.²⁹⁴ Climate change was hurting the village due to local warming in the Arctic.²⁹⁵ This warming led to a receding ice cover which used to protect the village from fierce storms.²⁹⁶ Due to the receding ice cover, the village was now exposed to harsh storms and erosion.²⁹⁷ The village must therefore be relocated, at a cost of 95 to 400

²⁸⁶ *Kivalina v. ExxonMobil* (n 33).

²⁸⁷ *City of New York v. BP p.l.c.* (n 49)

²⁸⁸ *Luciano Lliuya v. RWE AG* (n 33).

²⁸⁹ *Kivalina v. ExxonMobil* (n 33).

²⁹⁰ Ganguly, Setzer and Heyvaert (n 25) 846; Matthew F. Pawa, 'The Very Definition of Folly: Saving The Earth From Environmentalists' (2022) 38 Boston College Environmental Affairs Law Review 77, 79.

²⁹¹ *City of New York v. BP p.l.c.* (n 49).

²⁹² *Kivalina v. ExxonMobil* (n 33) 1 Complaint.

²⁹³ *ibid* 1–2.

²⁹⁴ *ibid* 1.

²⁹⁵ *ibid* 1–2.

²⁹⁶ *ibid*.

²⁹⁷ *ibid*.

million USD.²⁹⁸ The claimants therefore request compensation for the relocation of the village.²⁹⁹

In their complaint, Kivalina made four claims for relief, two based on nuisance and one based on a civil conspiracy, and one based on concert action on the part of the defendants.³⁰⁰ The focus is on the claims based on nuisance since they best fit the focus of this essay. Kivalina claimed the following:

“Defendants’ emissions of carbon dioxide and other greenhouse gases, by contributing to global warming, constitute a substantial and unreasonable interference with public rights, including, *inter alia*, the right to use and enjoy public and private property in Kivalina. [...] The Claimants’ entire village must be relocated at a cost of millions of dollars.”³⁰¹

As basis for the defendants’ emissions, the claimants presented the annual CO₂ emissions for 2006 for all the defendants.³⁰² According to Kivalina, defendants knew or should have known that their emissions were contributing to global warming and thus in turn were contributing to the harm experienced by Kivalina.³⁰³ The causal link they draw was the following. The defendants CO₂ emissions contribute to global warming, making the ice sheet in the Arctic decrease.³⁰⁴ This in turn leaves the property of the claimants vulnerable to erosion and fierce storms.³⁰⁵ Therefore, the claimants believed that they had intentionally or negligently created, contributed to and/or maintained the nuisance.³⁰⁶

The claimants thus asked the court to acknowledge the causal link between the defendants’ emissions and the harm experienced by the defendants.³⁰⁷ Scientifically, the connection between GHG emissions and ice melting in the Arctic is obvious,³⁰⁸ but in a legal context this was an unusual request since previous pollution cases targeted local pollution with clearer sources.³⁰⁹ This was a new type of case since it targeted a global problem with many emitters.³¹⁰

²⁹⁸ *Kivalina v. ExxonMobil* (n 33) 1 Complaint.

²⁹⁹ *ibid* 1–2.

³⁰⁰ *ibid* 62, 64–66.

³⁰¹ *ibid* 63.

³⁰² *ibid* 5–30.

³⁰³ *ibid* 2.

³⁰⁴ *ibid* 1–2.

³⁰⁵ *ibid*.

³⁰⁶ *ibid* 2.

³⁰⁷ *ibid* 1–2.

³⁰⁸ Allan and others (n 5) 5.

³⁰⁹ *Kivalina v. ExxonMobil* (n 33) 12 District Court order.

³¹⁰ Ganguly, Setzer and Heyvaert (n 25) 846–849.

5.2.2 The District Court Decision

The District Court for the Northern District of California did not agree with the claimants' reasoning and the claim was barred due to "the Political Doctrine Question" and due to a lack of standing.³¹¹

Regarding the Political Question Doctrine, the court argued as follows. According to Article III of the US Constitution,³¹² federal courts have limited jurisdiction.³¹³ Their jurisdiction is limited to actual "Cases" and "Controversies".³¹⁴ The Supreme Court has interpreted this so that political questions fall outside the jurisdiction of federal courts.³¹⁵ To determine what is a political question, the court uses the *Baker factors*³¹⁶ The second and third factors were relevant for this case.³¹⁷ These are, whether there is "a lack of judicially manageable standards" and whether a decision is impossible "without an initial policy determination of a kind clearly for nonjudicial discretion."³¹⁸ The court understands it as that the claimants believe that the judicially discoverable and manageable standards are the same in this case as in all nuisance cases.³¹⁹ The court states that the claimants "assert that the salient inquiry underlying their federal nuisance claim is whether defendants contributed to "an unreasonable interference with public rights".³²⁰ To determine this however, the court must weigh the utility and benefit of the alleged nuisance against the harm caused.³²¹ For this claim, this would require the court "to balance the competing interests of reducing global warming emissions and the interests of advancing and preserving economic and industrial development".³²²

The claimants argued in response that deciding tort claims for harm related to pollution that concern new and complex environmental issues is something that the courts have done successfully in the past and it should therefore not be a problem for the court now.³²³ However, the court disagreed, stating that previous pollution cases included a limited number of polluters, whereas global warming is caused by innumerable sources of GHG emissions all over the world.³²⁴ Also, the series of events that leads to the harm experienced by Kivalina is disconnected from the discharge of the

³¹¹ *Kivalina v. ExxonMobil* (n 33) 24 District Court order.

³¹² Constitution of the United States of America art. III.

³¹³ *Kivalina v. ExxonMobil* (n 33) 6 District Court order.

³¹⁴ *ibid.*

³¹⁵ *ibid.*

³¹⁶ *ibid* 7.

³¹⁷ *ibid* 9.

³¹⁸ *ibid.*

³¹⁹ *ibid* 10.

³²⁰ *ibid.*

³²¹ *ibid.*

³²² *ibid* 11.

³²³ *ibid* 12.

³²⁴ *ibid* 12–13.

emissions due to the long causal chain that results in the harm.³²⁵ Since this nuisance claim would impose liability and damages on a scale that is not comparable to previous cases, the court believes that it is not an issue with judicially discoverable and manageable standards which precludes the court from deciding on the issue.³²⁶

The third Baker factor requires the court to “determine whether it would be impossible for the judiciary to decide the case “without an initial policy determination of a kind clearly for nonjudicial discretion.”³²⁷ Here, the court ends with the same issue as they do with the previous Baker factor. It claims that in order to decide on the claim, it would have to balance the social benefits of the defendants’ conduct with the harm it causes.³²⁸ This, the court believes, is not a task for the courts but a matter that should be left for determination by the executive or legislative branch before the court can rule on the issue.³²⁹ Therefore, this Baker factor also requires the court to dismiss the claim.³³⁰

For a claimant to show standing, according to Article III of the US constitution,³³¹ they must establish three things, (1) *an injury in fact*, (2) *causality*, (3) *redressability*.³³² In this case, the main issue was the causation requirement.³³³ To show what it means by causality, the court quotes the Supreme Court on its definition of “the causation requirement”.³³⁴

“To show causation, the Claimant must demonstrate a causal connection between the injury and the conduct complained of—the injury has to be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court.”³³⁵

The claimants admit that they cannot trace their alleged injuries to any particular defendant.³³⁶ However, instead they argued that they only have to show that the defendants contributed to their injuries.³³⁷ This approach derives from pollution cases under the Clean Water Act, where claimants had sued polluters of waterways.³³⁸ In such cases, the claimant only has to

³²⁵ *Kivalina v. ExxonMobil* (n 33) 13 District Court order.

³²⁶ *ibid.*

³²⁷ *ibid* 13–14.

³²⁸ *ibid* 14.

³²⁹ *ibid* 15.

³³⁰ *ibid.*

³³¹ Constitution of the United States of America art. III.

³³² *Kivalina v. ExxonMobil* (n 33) 15 District Court order.

³³³ *ibid* 16.

³³⁴ *ibid.*

³³⁵ *ibid.*

³³⁶ *ibid.*

³³⁷ *ibid.*

³³⁸ *ibid.*

show a substantial likelihood that the defendant's action caused the harm.³³⁹ However, the court rules that this relaxation on the burden of showing causality only applies in cases where there are federal standard that limit the discharge of a pollutant, such as in the Clean Water Act cases.³⁴⁰ Since there is no federal standard that limits GHG emissions, there is no presumption for a substantial likelihood that the conduct of any of the defendants have caused harm to the claimant.³⁴¹ The court therefore established that it is irrelevant whether any of the defendants contributed to the harm, since a discharge of GHG is insufficient in itself to establish injury.³⁴²

The court argued further that even if the contribution theory could be applied here, the claimants would also have to show that the defendants were the "seed" of the injury, which they were not.³⁴³ Since the source of GHG in the atmosphere is undifferentiated and cannot be traced to any source, it not possible to show which GHG emissions originated from the claimants.³⁴⁴ Instead there are many others that could be pointed at as the possible sources of nuisance.³⁴⁵

Finally, the court also rejects the claimants' claim for causality since the emissions of GHG alleged as the source of harm are too geographically and temporally disconnected from Kivalina.³⁴⁶ Thus the court argues that it is not possible to argue that certain specific emissions caused the damage suffered by the claimants.³⁴⁷ The claimants' use of their property is not negatively impacted due to their proximity to the discharge, meaning that they are not within the *zone of discharge*.³⁴⁸ For this case to stand, the whole world would have to be considered the zone of discharge.³⁴⁹

5.2.3 Discussion

This case clearly illustrates the very steep challenge that climate litigation faced in the USA in 2008. As shown above, the challenge consisted of two issues, to show causality and to show why this issue should not be a political issue but should be considered a normal pollution tort case.

The court clearly considered the issue of climate change as an issue that should be decided by the other branches of government. Whether this view

³³⁹ *Kivalina v. ExxonMobil* (n 33) 17 District Court order.

³⁴⁰ *ibid* 19.

³⁴¹ *ibid*.

³⁴² *ibid*.

³⁴³ *ibid* 20.

³⁴⁴ *ibid* 19.

³⁴⁵ *ibid* 20.

³⁴⁶ *ibid* 21–22.

³⁴⁷ *ibid*.

³⁴⁸ *ibid*.

³⁴⁹ *ibid*.

of climate change and climate policy as a wholly political issue is correct is open to debate, but a clear effect of this approach is that claimants are not able to have their case tried on its merits and they are thus blocked from accessing L&D compensation. This is a hurdle that needs to be overcome to access climate justice in the USA, and how the court handles this question ten years later in the *New York v. BP* case is discussed below.

What this case also demonstrates is how in 2008 it was very hard convincingly to show a level of causality between GHG emissions and L&D. The court dismissed climate change straight away as too complex for a nuisance lawsuit. The fact that the court applies a very formal view of the issue is also made evident by the fact that it considered GHG emissions as insufficient to show a cause of injury since there were no federal standards regulating GHG emissions. By doing so, the court ignored climate science which in 2008 already clearly pointed to GHG emissions as harmful due to their contribution to climate change. It also claimed that the sources of GHG emissions are too diverse and too numerous to point to some sources of GHG as more substantial or relevant than others, without any real reference to climate science. Since the case did not fit the local frame of law, the court decided to dismiss the case. However, this case was filed before the Carbon Majors report by Heede, and hopefully the possibility to show causation for L&D has improved also in the USA.

5.3 City of New York v. BP p.l.c.

In 2018, the City of New York filed a lawsuit against the oil producing companies BP, Chevron, ConocoPhillips, ExxonMobil, and Royal Dutch Shell.³⁵⁰ This case is relevant to the thesis since it shows that the US legal system is still not equipped to deal with climate litigation cases in a way that attributes liability to pay monetary damages for GHG emissions to emitters. This is due to the Political question doctrine and just as in the *Kivalina v. ExxonMobil* case, which the judge refers to, this doctrine stops the claim from moving forward.³⁵¹ The case is studied hereunder to establish how the City of New York argues their claims and how the court reasons regarding them.

5.3.1 The Claim

The claimant in the case is City of New York and the defendants, BP, Chevron, ConocoPhillips, and Royal Dutch Shell, are all major producers and suppliers of petroleum products to the market.³⁵² In the claim, the Carbon Majors study by Heede is referred to and the defendants are collectively pointed out as responsible for 11% of global historical industrial

³⁵⁰ *City of New York v. BP p.l.c.* (n 49) 1 Complaint.

³⁵¹ *ibid* 21–23 District Court order.

³⁵² *ibid* 7, 9–10 Complaint.

emissions of GHG.³⁵³ In the capacity of producers and suppliers of petroleum products, the New York argues that these companies have contributed to temperature increases and climate change.³⁵⁴ Their actions cause severe harm at present time and constitute a threat of future catastrophic harm.³⁵⁵ The claimant explains the processes that lead to global warming and the process through which it is caused by GHG.³⁵⁶ In comparison to the *Kivalina v. ExxonMobil* case, in which one clear effect of climate change, the decreasing ice cover, was given as the main harm experienced, the claimant lists a number of harms caused by climate change.³⁵⁷ increased frequency of extreme heat has led to a rise in deaths, flooding has increased due to climate change, and New York is very susceptible to sea level rise due to its long coastline.³⁵⁸ The claimant, claims that it has therefore been forced to invest substantially into climate change adaptation, a 20 billion USD resilience program is given as an example.³⁵⁹

The claimant's first cause of action is public nuisance.³⁶⁰ New York claims that "the Defendant's production, marketing, and sale of massive quantities of fossil fuels" have led to harms to "the safety, health, and welfare of City resident and to New York's property and infrastructure" through the weather effects described above that have been caused by climate change.³⁶¹ The defendants were aware of these effects of their actions, but they persist in their conduct.³⁶² This, New York claims, thus constitutes a substantial and unreasonable interference with and obstruction of public rights and property of the people of New York.³⁶³ New York, on very similar grounds, then also present private nuisance, and trespass as second and third causes of action.³⁶⁴

5.3.2 Submission by the Defendants

In their response to the claim by New York, the defendants filed a memorandum of support of their motion to dismiss the complaint.³⁶⁵ The defendants argue that, due to the nature of global warming as a process caused by the accumulation of GHG from billions of emitters over the last several hundred years, any tort claims related to GHG emissions must arise

³⁵³ *City of New York v. BP p.l.c.* (n 49) 2 Complaint.

³⁵⁴ *ibid* 10.

³⁵⁵ *ibid*.

³⁵⁶ *ibid* 14–19.

³⁵⁷ *ibid* 121–124.

³⁵⁸ *ibid*.

³⁵⁹ *ibid* 52–53.

³⁶⁰ *ibid* 58.

³⁶¹ *ibid*.

³⁶² *ibid* 59–60.

³⁶³ *ibid*.

³⁶⁴ *ibid* 60, 62.

³⁶⁵ *City of New York v. BP p.l.c.* (n 49) The Defendants' Joint Memorandum of Law.

under federal common law.³⁶⁶ This is since GHG emissions are interstate and international in their nature and where there is federal law, federal law must govern over state law.³⁶⁷ Since interstate pollution has traditionally been an issue for federal law, this issue must be resolved under the scope of federal law, argues the defendants.³⁶⁸ Since the question arises under US federal law, the tort claim can also be displaced if Congress has legislated on the issue without including any remedies in the legislation.³⁶⁹ The relevant legislation here is the Clean Air Act.³⁷⁰ The defendants support this claim with reference to the Supreme Court, that qualified GHG emissions an example of interstate air pollution in the *Massachusetts v. EPA* case.³⁷¹ This reasoning is supported by the verdict in the *Kivalina v. ExxonMobil* case presented above.³⁷²

5.3.3 The District Court Decision

In its decision, the court affirmed the defendants' motion to dismiss the case. The court's reasoning is explained below.

In its claim, New York tried to argue that it did not seek damages for the defendants' emissions of CO₂, but rather for their production of fossil fuels and that therefore their claim ought not be considered displaced by the Clean Air Act.³⁷³ The court however disagrees with this, and argues that regardless of how they frame their claim, it is clear from the complaint that it is the effect of the emissions that they seek damages for.³⁷⁴ Therefore, New York bases its claims ultimately on transboundary emissions of GHG, and these claims thus arise under federal common law.³⁷⁵ Since New York's claims concern transboundary emissions of GHG, these have been displaced under the Clean Air Act.³⁷⁶ The court states that this was made clear in the *American Electric Power Co. v. Connecticut* and *Kivalina v. ExxonMobil* cases.³⁷⁷ Thus, to conclude, since the Clean Air Act provides a means to regulate CO₂ emissions from US power plants, it also displaces the City's claims, thereby removing the possibility to seek damages for harm caused

³⁶⁶ *City of New York v. BP p.l.c.* (n 49) 7–8 The Defendants' Joint Memorandum of Law.

³⁶⁷ *ibid* 8–9.

³⁶⁸ *ibid*.

³⁶⁹ *ibid* 12–15.

³⁷⁰ *ibid* 4; Clean Air Act (United States Code).

³⁷¹ *ibid* 12–15.

³⁷² *ibid*.

³⁷³ *ibid* 19 District Court order.

³⁷⁴ *ibid* 12.

³⁷⁵ *ibid* 13.

³⁷⁶ *ibid* 16.

³⁷⁷ *ibid* 13–18.

by these emissions.³⁷⁸ This is the case regardless of whether the case is based on public nuisance, private nuisance, or trespass claims.³⁷⁹

5.3.4 Discussion

The case above shows that the Political Question Doctrine still blocks US climate litigation cases from moving forward. This seems to be the case despite the progress made in attribution science discussed in the previous chapter. However, it is interesting that the causal link was not discussed by the court in its decision. This could indicate that the arguments to why no causality can be established laid out by the court in the *Kivalina v. ExxonMobil* case are recognised as weaker due to the scientific development that has taken place. In this lawsuit, the claimant had a scientific argument based on the Heede's research.³⁸⁰ However, it could also be that the court considers the Political Question Doctrine as a sufficient reason to dismiss the case. Therefore, even if further scientific progress makes causation easier to show, the situation for US climate litigation looks to remain unchanged.

5.4 Luciano Lliuya v. RWE AG

The case of Luciano Lliuya vs RWE AG is an on-going German strategic corporate climate litigation case.³⁸¹ This is the first case in private climate litigation in which a court has established liability for GHG emissions.³⁸²

The claimant, Luciano Lliuya, is the owner of a property in the city of Huaraz in the Ancash region in the foothill of the Peruvian Andes.³⁸³ Above the city, at an altitude of 4 562 metres lies Lake Palacocha, which risks flooding.³⁸⁴ Meltwater from a glacier overhead and from precipitation accumulate in the lake, the lake has limited natural drainage and is stanchied by moraine.³⁸⁵ At the end of the 1930s, the water volume of the lake was 10 to 12 million m³, this had increased to 17.4 million m³ by 2016.³⁸⁶ Earthquakes and mudslides occur naturally in the area, which can lead to avalanches crashing down into the lake and the lake's moraine walls bursting.³⁸⁷ This happened in 1941 with a subsequent flooding of the city as

³⁷⁸ *City of New York v. BP p.l.c.* (n 49) 13-18 District Court order.

³⁷⁹ *ibid.*

³⁸⁰ Heede (n 104).

³⁸¹ *Luciano Lliuya v. RWE AG* (n 33).

³⁸² Will Frank, Christoph Bals and Julia Grimm, 'The Case of Huaraz: First Climate Lawsuit on Loss and Damage Against an Energy Company Before German Courts' in Reinhard Mechler and others (eds), *Loss and Damage from Climate Change: Concepts, Methods and Policy Options* (Springer International Publishing 2019) 480.

³⁸³ *Luciano Lliuya v. RWE AG* (n 33) District Court decision.

³⁸⁴ *ibid.*

³⁸⁵ *ibid.*

³⁸⁶ *ibid.*

³⁸⁷ *ibid.*

a consequence.³⁸⁸ The claimant in the case, Mr Lliuya, claims that the amount of water in the lake has reached a dangerous level and that the defendant have contributed to this through its substantial emissions of GHG.³⁸⁹ In the event of a flood, the property of Luciano Lliuya would be heavily affected since it is in a part of the city which the authorities anticipate would receive a water of level of over 3 metres in the case of a flood.³⁹⁰

The defendant in the case, RWE AG is a parent company and is the owner of RWE group.³⁹¹ RWE was founded in 1898 and is a German gas and electricity supplier based in Essen.³⁹² For the purpose of generating power, RWE uses coal and lignite, which in turn produces substantial emissions of CO₂.³⁹³

5.4.1 The Claim

Lliuya claims compensation for removal of derogation of property to a value of 21.000 EUR.³⁹⁴ The claimant bases his claim against the defendant on § 1004 of the German Civil Code BGB³⁹⁵. This paragraph concerns the removal of property interference, it reads as follows:

“(1) If the ownership is interfered with by means other than removal or retention of possession, the owner may require the disturber to remove the interference. If further interferences are to be feared, the owner may seek a prohibitory injunction.”³⁹⁶

“(2) The claim is excluded if the owner is obliged to tolerate the interference.”³⁹⁷

The interference with the Property in this case according to the claimant is, the risk of flooding, here referred to as the impairment.³⁹⁸ The claimant claims that even though there has not yet been a flooding, this does not preclude an impairment.³⁹⁹ According to German case law, a risk is also an impairment when the condition inevitably must lead to an impairment.⁴⁰⁰

³⁸⁸ *Luciano Lliuya v. RWE AG* (n 33) District Court decision.

³⁸⁹ *ibid.*

³⁹⁰ *ibid* 10 Complaint.

³⁹¹ *ibid* 2.

³⁹² *ibid* 17.

³⁹³ *ibid.*

³⁹⁴ *ibid* 1.

³⁹⁵ *ibid* 25.

³⁹⁶ Bürgerliches Gesetzbuch (German Civil Code) § 1004 para. 1.

³⁹⁷ *Ibid* § 1004 para. 2.

³⁹⁸ *Luciano Lliuya v. RWE AG* (n 33) 27 Complaint.

³⁹⁹ *ibid* 29.

⁴⁰⁰ *ibid.*

The claimant argues that with the evidence they provide, the risk of flooding must be considered only a matter of time before it occurs.⁴⁰¹

The claimant argues further that this impairment is not a natural occurrence but is wholly man-made. To support this, they rely on the climate science released by the IPCC. Since there is no doubt that the warming of the climate is caused by human emissions of GHG and that the glacial melting taking place is caused by the warming climate, it can be established that the impairment is man-made and not a natural phenomenon.

The claimant refers to the fact that anthropogenic climate change caused by GHG emissions, is acknowledged in German law.⁴⁰² Referring to the Carbon Majors report by Heede from 2014, the claimant claims that RWE's share in the global historical emissions of GHG is about 0.47% and for the period 1990-2014, RWE share of global emissions was 0.45% and its share of German emissions was 14.06%.⁴⁰³

However, the claimant also must link his L&D to RWE, thereby showing that RWE is a disturber in a legal sense. In German law, there are two somewhat defined legal terms, a *disturber by action* and *disturber by condition*. A disturber by action is someone who has "sufficiently caused the impairment of property with his conduct, i.e., through his positive doing or through undue neglect of his duties",⁴⁰⁴ and a disturber by condition is one who has not "caused the impairment, but with whose substantial intent the impairing is sustained".⁴⁰⁵ To be held liable, the accused party must control the source of the disturbance and thus have the capacity for its removal. Furthermore, the impairment must also be attributable to the party.⁴⁰⁶ According to the Lliuya, both these requirements are fulfilled, the defendant had and still has the capacity to refrain from GHG emissions, the GHG emissions are also caused knowingly and willingly, and they are a foundation of the defendant's business model. The defendant is there at least a disturber by condition but should also be considered a disturber by action.⁴⁰⁷

So far, the claimant has shown in his claim that he is suffering from an impairment to his property. The fact that the Disturber is not alone in being responsible for the climate change does not remove him of his status as a disturber, according to Lliuya. According to the Federal Court of Germany, in cases of impairment from multiple disturbers the owner can act against

⁴⁰¹ *Luciano Lliuya v. RWE AG* (n 33) 29 Complaint.

⁴⁰² *ibid* 11.

⁴⁰³ *ibid* 18–19.

⁴⁰⁴ *ibid* 30.

⁴⁰⁵ *ibid*.

⁴⁰⁶ *ibid*.

⁴⁰⁷ *ibid*.

each separate disturber in accordance with its causal contribution to the disturbance.⁴⁰⁸

Causality is defined by the claimant as the causal effect of an event for an outcome, i.e., for the occurrence of a change.⁴⁰⁹ Generally, a conduct is causal to an event if, when you apply the *conditio-sine-que-non* formula, if the action were to cease, then the impairment would also cease.⁴¹⁰ However, since this claim falls within the scope of cumulative causation, the claimant argues that, referring to German case law, there is also “a factual causality when the action of one party could not bring about damage by itself, but only in synergy with the action of another or some other cause, so-called cumulative causality”.⁴¹¹ In such cases, the claimant argues, is it only possible to apply the *conditio-sine-que-non* formula “in the sense that a contribution to the cause was made, and that the sum of all contributions indirectly leads to the impairment of property”.⁴¹² Thus, since the impairment would not occur without the amounts of GHG emitted from all emitters collectively, there is cumulative causality. The IPCC has concluded that the retreating Andean glaciers can be traced back to climate change “with very high” confidence⁴¹³. Thus, the claimant believes that it is shown to be causality between the emissions of RWE and the impairment of property that the claimant is suffering from.

5.4.2 Submission by the Defence

In the statement of defence, the defendant disagrees with many of the claims presented by Lliuya. The disagreements can be divided into two groups, disagreements with the facts concerning climate change and disagreement on the suitability to resolve climate related issues using civil liability law.

5.4.2.1 *Disagreements on the facts of the case*

RWE argued that the claimant had neglected to account for many differing reasons for glacial melting in the region.⁴¹⁴ One climatic condition that affects the amount of water in the glacial lake is the level of precipitation, as opposed to temperature.⁴¹⁵ When there is less snow, the glaciers reflect less sunlight, which leads to an increase in melting.⁴¹⁶ The argument here seems to be that this is not related to RWE’s emissions.

⁴⁰⁸ *Luciano Lliuya v. RWE AG* (n 33) 30–31 Complaint.

⁴⁰⁹ *ibid* 31.

⁴¹⁰ *ibid* 32.

⁴¹¹ *ibid*.

⁴¹² *ibid*.

⁴¹³ *ibid* 33.

⁴¹⁴ *ibid* 1–2 Statement of Defence.

⁴¹⁵ *ibid*.

⁴¹⁶ *ibid*.

Furthermore, the defendant claims that glaciers have always progressed and retracted throughout history, independent of human activity.⁴¹⁷ Thus, they seem to claim, that general conclusions regarding glaciers cannot be drawn and the claimant has failed to address the progress of this specific glacier.⁴¹⁸

The main argument laid out by the defence is that the causes of glacial retreat in the region is manifold and that the causal link between GHG emissions and glacial retreat is “oversimplified and unrealistic”.⁴¹⁹ RWE here argues that there is no linear relationship between temperature and HG emissions.⁴²⁰ The increased temperature between 1880 and 2012 was due to natural consequences and they claim that the IPCC has concluded that GHG emissions have been overestimated in models regarding increased global temperatures.⁴²¹ Furthermore, they claim that global temperatures says nothing about local temperatures, which they claim have fallen in the region concerned.⁴²² Thus, they claim that “contrary to the Claimant’s allegation, climate change is not caused by humans alone, but is the result of natural and anthropogenic processes”.⁴²³ As examples of such natural processes, they list solar radiation, clouds, volcanoes etc.⁴²⁴

5.4.2.2 *Disagreements on the legal nature of the case*

As it regards the legal questions of the case, RWE main point is that the claim is unfounded.⁴²⁵ They claim that climate change cannot be addressed through individual civil liability and must instead be handled through inter-governmental action.⁴²⁶

RWE argues that civil litigation is based on a causal relationship between individual factors and that it requires an outcome that is attributable to a given cause.⁴²⁷ This requirement, they claim, cannot be fulfilled by a combination of cumulative, long-term, and long-distance damage.⁴²⁸ This has been confirmed by the *Waldschaden* case.⁴²⁹ This case is applicable to the situation of global warming due to anthropocentric GHG emissions since, like the case with sulphur dioxide, henceforth SO₂, in the *Waldschaden* case, it is not possible to attribute the damage, in this case climate change, to the individual sources and it is also not possible to

⁴¹⁷ *Luciano Lliuya v. RWE AG* (n 33) 2 Statement of Defence.

⁴¹⁸ *ibid.*

⁴¹⁹ *ibid.*

⁴²⁰ *ibid* 2–3.

⁴²¹ *ibid.*

⁴²² *ibid.*

⁴²³ *ibid* 3.

⁴²⁴ *ibid* 3–4.

⁴²⁵ *ibid* 7.

⁴²⁶ *ibid.*

⁴²⁷ *ibid.*

⁴²⁸ *ibid.*

⁴²⁹ *ibid*; *Waldschaden* [1987] Bundesgerichtshof III ZR 220/86.

determine a proportional causation.⁴³⁰ This is since the emissions released from the power plants mix in the air with other emissions, making them indistinguishable from each other, then the effect occurs.⁴³¹ The emissions would have to directly cause an effect before being mixed with other emissions, for there to be linear causation. Furthermore, anthropogenic emissions of CO₂ also mix with natural emissions of CO₂, and it also ends up in carbon sinks such as the sea and forests, the capacity of which to hold CO₂ has increased.⁴³² These circumstances make climate emissions even more complex and indirect than the SO₂ emissions in the *Waldschaden* case.⁴³³

RWE further argues that this reasoning is in line with US case law on the question, referring to the *Kivalina v. ExxonMobil* case.⁴³⁴ The court in that case concluded that the climate issue was a political issue not suitable for civil litigation due to three reasons:

- The large number of emitters and intermingling of emissions makes it impossible to distinguish the emissions of a certain polluter.⁴³⁵
- Regulations of emissions under climate protection law supersedes civil litigation law.⁴³⁶
- There was no clear indication of the concrete way in which the Claimant was affected by the interference.⁴³⁷

The current case should thus be decided on the same principles. RWE also finds support for this in the *Urgenda*,⁴³⁸ and *Massachusetts v. EPA*,⁴³⁹ cases.⁴⁴⁰ According to RWE, these cases show that climate change is a political question and a responsibility of national governments, and not a question of civil liability.⁴⁴¹

5.4.3 The District Court Decision

⁴³⁰ *Luciano Lliuya v. RWE AG* (n 33) 7 Statement of Defence.

⁴³¹ *ibid* 7–8.

⁴³² *ibid*.

⁴³³ *ibid*.

⁴³⁴ *ibid* 8.

⁴³⁵ *ibid*.

⁴³⁶ *ibid*.

⁴³⁷ *ibid*.

⁴³⁸ *Urgenda Foundation v. State of the Netherlands* (n 279).

⁴³⁹ *Massachusetts v EPA* [2007] District of Columbia Circuit Court 03-1361.

⁴⁴⁰ *Luciano Lliuya v. RWE AG* (n 33) 8 Statement of Defence.

⁴⁴¹ *ibid*.

On the 15th of December 2016 the District Court of Essen dismissed the case due to a lack of causality.⁴⁴²

The court deemed RWE not a disturber in the eyes of the law. The court concluded that “the status of the defendant as a disturber is to be negated due to the absence of adequate and equivalent causation of the impairment.”⁴⁴³ Similar to the court in *Kivalina v. ExxonMobil* the district court relied on the fact that the emission from RWE is but a small fraction of global emissions, and thus concluded that causation cannot be established.⁴⁴⁴ Using the principle of “*conditio sine qua non*”, the court concludes that even if the emissions of RWE were to be negated, this would not remove the harm and it does not find the idea of co-causation applicable in this case.⁴⁴⁵

The court also agreed with the defendants’ reasoning on the *Waldschaden* case and its applicability on the present case.⁴⁴⁶ The court argued that in the *Waldschaden* case, where the causal chain between emissions and harm was not deemed strong enough, the causal chain was still more firm than in the present case.⁴⁴⁷ In the case of climate change, they believed the chain of causation to be even more complex due to the many major and minor emitters.⁴⁴⁸

The research of Heede and others in the Carbon Majors report thus seem to have influenced the court very little. It still seems to consider the line of causation in the case of climate change as too complex and multipolar to be able to identify a linear chain of causation. It also claims the chain of causation to be “scientifically disputed”.⁴⁴⁹ It does concede that RWE is a major emitter but still believes that the emissions of the company does not “substantially increase the effects of climate change.”⁴⁵⁰

5.4.4 Appeal to the Higher Regional Court

Lliuya appealed the court’s decision to the Higher Regional Court of Hamm.⁴⁵¹ Lliuya argued that there was indeed a causal relationship between RWE’s emissions and the nuisance experienced by Lliuya and that the fact that RWE is only a contributor to the nuisance does not exempt them from liability.

⁴⁴² *Luciano Lliuya v. RWE AG* (n 33) 5 District Court decision.

⁴⁴³ *ibid* 6.

⁴⁴⁴ *ibid* 5–6.

⁴⁴⁵ *ibid*.

⁴⁴⁶ *ibid* 6.

⁴⁴⁷ *ibid*.

⁴⁴⁸ *ibid*.

⁴⁴⁹ *ibid*.

⁴⁵⁰ *ibid* 7.

⁴⁵¹ *ibid* 1 Appeal.

Concerning the causal link, Lliuya argues a case based on scientific research in the field of climate change.⁴⁵² The claimant argues that a condition is causal in scientific terms if “it leads to an outcome; a condition is therefore a “partial cause” if it contributes to that outcome.⁴⁵³ The first stage is that CO₂ is released by the defendant into the atmosphere, increasing the density of the Earth’s atmosphere.⁴⁵⁴ At the second stage, the GHG molecules reduces the global heat emissions and thus raises the temperature of the Earth.⁴⁵⁵ At the third stage, local temperatures increase which in turn increases glacial melting.⁴⁵⁶ Glacial melting increases the water in Lake Palacocha, making it less stable and increases the risk of it collapsing from slabs of ice.⁴⁵⁷ At the fourth stage, which is yet to occur, a slab of ice could set off a flood which then floods the property of the claimant.⁴⁵⁸

The claimant also strongly questions the court’s interpretation of the *conditio-qua-sine-non* test.⁴⁵⁹ Lliuya argues that the district court’s use of the test is faulty.⁴⁶⁰ If the emissions of the defendant were to be removed from the atmosphere, this would mean a lower local temperature and thus less glacial melting and a lower risk of harm for the claimant.⁴⁶¹ Since it can be shown that RWE is responsible for 0.47% of global temperature increase, the causality passes the *conditio-qua-sine-non* test, even if there also exists a general disturbance.⁴⁶²

Concerning the *Waldschaden* case, brought up by the defendant, Lliuya argues that *Waldschaden* concerned emissions of SO₂ which led to damages on a forest located close to the SO₂ source.⁴⁶³ In this case, the court claimed that no causal link could be established between the SO₂ emission and the harm to the forest, since it was impossible to track the pollution to a special source.⁴⁶⁴ Lliuya claims that this judgement is not applicable to the present case since the *Waldschaden* case concerned non-specific SO₂ emissions which are not comparable to emissions of CO₂.⁴⁶⁵ This is since SO₂ emissions do not mix in the atmosphere and contribute to a global problem,

⁴⁵² *Luciano Lliuya v. RWE AG* (n 33) 14 Appeal.

⁴⁵³ *ibid.*

⁴⁵⁴ *ibid.*

⁴⁵⁵ *ibid.*

⁴⁵⁶ *ibid.*

⁴⁵⁷ *ibid.*

⁴⁵⁸ *ibid.*

⁴⁵⁹ *ibid* 14–15.

⁴⁶⁰ *ibid.*

⁴⁶¹ *ibid.*

⁴⁶² *ibid.*

⁴⁶³ *ibid* 17.

⁴⁶⁴ *ibid* 16.

⁴⁶⁵ *ibid* 19.

but instead have local effect.⁴⁶⁶ CO₂ behaves differently, as explained by Professor Mojib Latif in the appeal:

“However, where greenhouse gases are concerned, due to physical laws, all emitters necessarily contribute to the gradual warming and its consequences. Accordingly, for emissions of greenhouse gases, there is a “closed” circle of causal agents (in sense that individual emitters cannot leave the circle of causal contributors), and each contributor “individually” has (necessarily) causal impact, which is based (also in legal terms) on the size of its contribution.”⁴⁶⁷

Thus, Lliuya argues, the causal chain with regards to climate change is not more complex and multipolar than SO₂ emissions, but instead, it is clear and easy to follow.⁴⁶⁸ This is because CO₂ emissions constitute a closed circle where all emissions are causal.⁴⁶⁹ Since the emissions of RWE are measurable, quantifiable and are a part of this closed loop, their impacts are also possible to establish.⁴⁷⁰

This line of argument is interesting since it upends the idea that the causal chain of GHG emissions is vaguer than the causal chain of other types of pollution. This shows that due to the progress made in attribution science, the sources of L&D should be considered as clear and easy to pinpoint as other types of point sources of pollution.

5.4.5 The Higher Regional Court Decision

In its order to the parties to submit evidence on the 30th of November 2017, the Higher Regional Court of Hamm accepted Lliuya’s case as compatible with the German legal system.⁴⁷¹

The court found the claim to be compatible with German emission legislation since the claimant is not seeking to limit the defendant’s actions or decommission any power plants.⁴⁷² Instead, the claim is in line with the principle that even a party who acts lawfully must be liable for the damage it causes through its actions.⁴⁷³

Furthermore, the court does not accept that the case concerns natural events and instead accepts the chain of causation carried forth by the claimant, at

⁴⁶⁶ *Luciano Lliuya v. RWE AG* (n 33) 19 Appeal.

⁴⁶⁷ *ibid* 20.

⁴⁶⁸ *ibid*.

⁴⁶⁹ *ibid*.

⁴⁷⁰ *ibid*.

⁴⁷¹ *ibid* 1 Higher Regional Court order.

⁴⁷² *ibid*.

⁴⁷³ *ibid*.

least in theory.⁴⁷⁴ It claims that the starting point of the chain of causation and thus a contributory cause of the flood risk is the energy companies' operations.⁴⁷⁵ Thus, the alleged threat to the claimant's property is attributable to the defendant's actions.⁴⁷⁶

Since the court accepted the claim as admissible in principle, the court ordered that expert opinions should be obtained on the following claims by the claimant.⁴⁷⁷

- Whether a flood and/or mudslide resulting from the expansion and increase in water in Lake Palacocha poses a serious risk to the claimant's property.⁴⁷⁸
- Whether the CO₂ emissions from the defendant's power plants rise into the atmosphere and makes it denser.⁴⁷⁹
- Whether the result of the increased concentration of GHG molecules leads to a lower rate of global emission of heat and thus an increase in global temperature.⁴⁸⁰
- Whether the resulting increase in average local temperature accelerates the melting of the Palcaraju Glacier, increasing the volume of water in Lake Palacocha so that the natural moraine can no longer contain it.⁴⁸¹
- Whether the defendants share in contributory causation of the causal chain is measurable and calculable and accounts for 0.47% of the total.⁴⁸² If the share is different than 0.47%, the expert will correct that figure.⁴⁸³

5.4.6 Discussion

The decision from the Hamm Regional Court to accept the case is the first time that a court has accepted that a private company in principle can be responsible for its part in causing climate change.⁴⁸⁴ This is a breakthrough

⁴⁷⁴ *Luciano Lliuya v. RWE AG* (n 33) 1 Higher Regional Court.

⁴⁷⁵ *ibid.*

⁴⁷⁶ *ibid.*

⁴⁷⁷ *ibid* 2.

⁴⁷⁸ *ibid.*

⁴⁷⁹ *ibid.*

⁴⁸⁰ *ibid.*

⁴⁸¹ *ibid.*

⁴⁸² *ibid.*

⁴⁸³ *ibid.*

⁴⁸⁴ Frank, Bals and Grimm (n 382) 480.

for the possibilities of climate litigation, regardless of whether the case succeeds or not in the end.

The case would probably never have come as far without two related and new circumstances that were not present in previous cases. One is the willingness of the court to trust and apply climate science in its reasoning. The other is the progress made in attribution science.

The court's acceptance of climate science in a way is the bedrock of the case moving forward. The defendant makes many claims about alternative causes of the impairment which the court disregards. A clear difference between the *Kivalina v. ExxonMobil* case and the present case is the access that the claimants had to climate attribution data. In the *Kivalina v. ExxonMobil* case, the defendants had to base their lawsuit on general claims that the defendants were responsible for a lot of GHG emissions and that these had led to climate change, however, they could not quantify the contributions. Without the ability to quantify the emissions, it becomes very hard for the court to address responsibility, since that requires the court to be able to demonstrate to what extent a party is responsible.

There are many possible future implications of the lawsuit moving forward. There exist similar legal rules to those of Germany in many countries and thus this decision could lead to courts in other countries deciding that a company should be considered responsible for the consequences of climate change in relation to their GHG emissions.⁴⁸⁵

⁴⁸⁵ Frank, Bals and Grimm (n 382) 481.

6 Conclusion

6.1 Analysis

In this chapter, the findings of the previous chapters are presented and discussed that flow from the research question *does the increased number of climate litigation cases offer prospects of increased numbers of L&D victims accessing climate justice?*

What can be established first, is that the chances of successful climate litigation vary depending on many different factors. One important factor is the national legal order. In the case of the USA, the possibilities currently for climate litigation look bleak. This conclusion is based on an early and more recent climate case drawn from the US jurisdiction. Between *Kivalina v. ExxonMobil* and *New York v. BP*, quite few advances seem to have been made. The main issue for the US climate lawsuits is the Political Question Doctrine and little has changed between *Kivalina v. ExxonMobil* and *New York v. BP*. This is made clear by the fact that the court refers to the *Kivalina v. ExxonMobil* case in *New York v. BP* when it dismisses the case.⁴⁸⁶ As long as the precedent set in *Kivalina v. ExxonMobil* stands, victims of L&D will have little chances in accessing climate justice through the US courts. For this to change, there must either be a change in how the courts interpret the Political Question Doctrine or a change in legislation passed by the US Congress. Since the current US Supreme Court has restricted efforts to combat climate change rather than widened them, it seems unlikely that it will make a positive difference in this scenario.⁴⁸⁷ However, the court recently rejected an appeal from a number of US oil companies, in which they asked the court to move a number of climate lawsuits from state courts to federal courts.⁴⁸⁸ This could have an impact on the Political Question Doctrine, but it is far from certain. Turning to the political branch, the US congress is currently divided, with a Republican House of Representatives majority and a Democrat Senate majority, and an agreement on new legislation to help climate litigants seems therefore unlikely.⁴⁸⁹

⁴⁸⁶ Opinion and Order *City of New York v. BP p.l.c.* (n 49) 13–18.

⁴⁸⁷ Cf. ‘US Supreme Court Deals Blow to Climate Action’ (*Human Rights Watch*, 1 July 2022) <<https://www.hrw.org/news/2022/07/01/us-supreme-court-deals-blow-climate-action>> accessed 13 May 2023.

⁴⁸⁸ ‘US Supreme Court Denies Oil Companies’ Bid to Move Venue of Climate Lawsuits’ *The Guardian* (24 April 2023) <<https://www.theguardian.com/law/2023/apr/24/supreme-court-oil-climate-lawsuits-state-federal>> accessed 17 May 2023.

⁴⁸⁹ Cf. Jennifer Hijazi and Dean Scott, ‘Climate Damages Paid to Poorer Nations Faces Divided Congress’ (*Bloomberg Law*, 1 December 2022)

In Germany, the chances of successful climate litigation seem better. The decision by the Higher Regional Court of Hamm to accept the case *Lliuya* case as well pled and admissible is a breakthrough and acknowledges that a company can be held liable for their GHG emissions.⁴⁹⁰ This represents a major shift from the previous Federal Court judgement in 1987 in the *Waldschaden* case, where victims of pollution were denied compensation from polluters.⁴⁹¹ Another recent promising sign in the field of public climate litigation was a Federal Court ruling from 2021 that obligated the German legislature to adopt more precise climate targets.⁴⁹² The verdict also recognised that human rights transcend time and space, “this includes the elementary preconditions of freedoms exercised today, but also those that are infringed for future generations and for people living in other countries”.⁴⁹³ These cases show that the German courts are willing and able to address the issue of climate change with far-reaching new verdicts. In the case of *Lliuya v. RWE*, the next step is to see whether the court also recognises the causal link between RWE’s emissions and the risk to the claimant’s property. However, whether the causal link is accepted in this specific case, the fact that the principle of corporate liability for GHG emissions has been acknowledged could still have an impact on further cases. Therefore, it is the opinion of this thesis that the German court’s decision to accept the case represents a major step forward for climate litigation as a tool for climate justice. But it is still too early to say whether this will mean access to loss and damage compensation for victims in practice.

Another important factor that helps climate litigation to succeed is climate science. As discussed above, there have been substantial progress made in climate science, especially within the field of attribution science, during the last two decades.⁴⁹⁴ In the *Kivalina v. ExxonMobil* case, the claimants did not have access to the kind of precise climate data that later climate litigants have been able to rely on and they could not provide the court with what specific percentage of historical global emissions that each defendant were responsible for.⁴⁹⁵ Since the science has developed, it could therefore be presumed that this has increased the chances for successful climate litigation, which for example Ganguly et al. expresses high hopes for.⁴⁹⁶

<<https://news.bloomberglaw.com/environment-and-energy/us-payout-of-loss-and-damage-faces-hurdles-from-split-congress>> accessed 13 May 2023

⁴⁹⁰ Frank, Bals and Grimm (n 382) 480.

⁴⁹¹ *ibid.*

⁴⁹² Felix Ekardt and Katharine Heyl, ‘The German Constitutional Verdict Is a Landmark in Climate Litigation’ (2022) 12 *Nature Climate Change* 697, 697.

⁴⁹³ *ibid.*

⁴⁹⁴ Stuart-Smith R, Otto FE and Wetzer T, ‘Liability for Climate Change Impacts: The Role of Climate Attribution Science’ in Elbert R De Jong (ed), *Corporate Responsibility and Liability in Relation to Climate Change* (Intersentia 2022)

⁴⁹⁵ *Kivalina v. ExxonMobil* (n 33) Complaint.

⁴⁹⁶ Ganguly, Setzer and Heyvaert (n 25) 850–855.

They argue that the scientific development has potential to affect the view that climate change is a wholly political issue.⁴⁹⁷ The increased understanding of climate change as an issue with a discernible number of polluters instead of a diffuse problem with uncountable anonymous polluters “could trigger a shift in the judicial mindset and recast climate change from a political question into an individual concern.”⁴⁹⁸ Ganguly et al. compare this to tobacco and asbestos litigation in the USA.⁴⁹⁹ The earlier cases also faced issues, but eventually the scientific data linking asbestos and tobacco to disease became unsurmountable which eventually led to changes in legislation and the creation of compensation funds.⁵⁰⁰ The recent Supreme Court decision to send climate litigation cases back to state courts might be a sign of such a progress.⁵⁰¹

In the US context however, these hopes for climate litigation have yet to materialise, as can be concluded from the two US cases above. Since they were both dismissed on legal grounds, it is hard to determine what role the scientific progress has had in the US context. In the *Lliuya v. RWE* case however, the claimant was clearly able to express why specifically RWE should be held liable, showing the historical emissions of that specific company.⁵⁰² However, there is no older German case to compare with and therefore it is hard to know how a court would have reasoned if the scientific data was not as substantial. It could be speculated, though, that the climate data provided by the Carbon Majors report have had an impact here, since the District Court of Essen at first dismissed the causal link.⁵⁰³ If the claimants did not have access to such compelling data as they did, maybe the Higher Regional Court of Hamm would have reached the same conclusion as the District Court of Essen. Despite the uncertainty, it seems reasonable to believe that advances in attribution science have indeed increased the chances of successful climate lawsuits being brought forward, as the lawsuits can construct a stronger causal chain. It has also been found that climate lawsuits lag behind scientific development, meaning that the full potential of the scientific development could be greater in the future.⁵⁰⁴ As was discussed above, it can also be inferred that climate lawsuits that are based on climate change events that have a clear link to climate change, such as glacial melting or the rise of sea water level, has a greater chance of showing a causal chain.⁵⁰⁵ This means that climate litigation success will

⁴⁹⁷ Ganguly, Setzer and Heyvaert (n 25) 856.

⁴⁹⁸ *ibid.*

⁴⁹⁹ *ibid* 856–858.

⁵⁰⁰ *ibid.*

⁵⁰¹ ‘US Supreme Court Denies Oil Companies’ Bid to Move Venue of Climate Lawsuits’ (n 488).

⁵⁰² Complaint *Luciano Lliuya v. RWE AG* (n 33) 18.

⁵⁰³ *Luciano Lliuya v. RWE AG* (n 33) District Court decision.

⁵⁰⁴ Stuart-Smith, Otto and Wetzer (n 494) 10.

⁵⁰⁵ *ibid* 13.

also depend on what source of L&D is at stake. This is of course good news for someone claiming compensation for L&D connected to such a cause, but it also makes the instrument less universally applicable. However, the more attribution science continues to evolve, the easier it will probably be to show causation in a chain of circumstances.

Having discussed the circumstances that successful climate litigation relies upon above, it is now time to go back to the purpose and research question of this thesis.

The most positive example of climate litigation that is studied in this thesis is the case of *Lliuya v. RWE*. According to the NGO that is supporting Luciano Lliuya, the court's decision to let the case enter the evidentiary phase has already established a precedent, namely that major polluters can be held liable for their GHG emissions according to German law.⁵⁰⁶ The court simultaneously rejected RWE's defence that GHG emissions are too diffuse and that climate change is too complex for the law to cover it.⁵⁰⁷ Luciano Lliuya, who is a victim of L&D, therefore has been able to pursue compensation for his L&D. He is also from the Global South and is suing a major emitter in the Global North. Therefore, this case is an example of how climate litigation enables victims of L&D to pursue climate justice. It is still unclear whether he will be reimbursed in the end, but his case is at least tried on its merits. This thus makes a strong argument for the conclusion that increased climate litigation cases will lead to a higher number of victims of L&D accessing climate justice through litigation.

If *Lliuya v. RWE* is a strong argument for the potential of climate litigation to deliver climate justice, the other cases examined in the thesis are examples of the opposite. From studying the two US cases, *Kivalina v. ExxonMobil* and *New York v. BP*, it can be concluded that the US legal order still does not offer any way for victims of L&D to access climate justice. This seems to be the case regardless of how the claims are framed. In their claim, the City of New York tried to get around the issue of the political question doctrine by referring to state law instead, but the court still dismissed the case. The City also tried to base their lawsuit on the production of fossil fuels, not the combustion of them, but the court still found that the issue was that of inter-state pollution and therefore a question that falls under federal law. Since the USA is the country where around 1400 climate lawsuits have been filed, out of a global total of more than 2000 lawsuits,⁵⁰⁸ the fact that climate justice cannot be pursued for victims of

⁵⁰⁶ The significance of climate litigation for the political debate on Loss & Damage' (n 52) 5.

⁵⁰⁷ *ibid.*

⁵⁰⁸ *ibid.* 4.

L&D in the USA, has a large impact on the effectiveness of climate litigation at a whole.

This far it can be concluded that one case, *Lliuya v. RWE*, shows great promise in providing compensation to a L&D victim and establishing corporate liability for GHG emissions, but it is still pending and has not yet done so. No other case has yet succeeded in doing so neither.⁵⁰⁹ It can also be concluded that more than two thirds of climate cases that have been filed historically, have been filed in the USA, where L&D victims have not yet been able to secure compensation for L&D. Therefore, the answer to the research question is that the increased number of climate litigation cases does not, yet, lead to increased numbers of L&D victims accessing climate justice, but that the development does offer prospects for it to happen in a not too distant future.

6.2 Concluding remarks

With this conclusion about private climate litigation as it stands today in mind, what can then be said about its future potential?

In the context of climate justice as described above, those most in need of climate justice are people in the Global South. For climate litigation to be a useful tool to pursue climate justice, it therefore also needs to be feasible for them to access justice in the Global North. In the case of *Lliuya v. RWE*, the case has been ongoing since 2015 and Lliuya has received help from Germanwatch, a German NGO.⁵¹⁰ Most victims of L&D will not be able to access this kind of legal assistance and do not have the time and resources that it requires to pursue a case in a foreign country. This means that even if the problems discussed in this thesis were to disappear, private climate litigation may still not enable many of the world's L&D victims to access climate justice.

However, just as Ganguly et al., this thesis places hope in the future development of climate litigation.⁵¹¹ The practical problems that climate litigation faces in providing climate justice for L&D in a large scale, could be overcome through actions by larger entities than individuals, such as states. Here, climate litigation and the international negotiations within the UNFCCC COP could work together towards the common goal of L&D compensation. Patrick Toussaint, a PhD Candidate in International Law at the University of Eastern Finland Law School, discusses this in his article "Loss and damage and climate litigation: The case for greater

⁵⁰⁹ Frank, Bals and Grimm (n 382) 480.

⁵¹⁰ *Luciano Lliuya v. RWE AG* (n 33).

⁵¹¹ Ganguly, Setzer and Heyvaert (n 25) 867–868.

interlinkage”.⁵¹² He discusses how climate litigation could be used as a negotiation strategy within the international L&D negotiations.⁵¹³ The small island state Vanuatu has in the past discussed litigation as a possible separate route to use if the international community cannot agree upon a functioning mechanism for L&D compensation.⁵¹⁴ If state litigation against private emitters, or against other states, would become a reality, the work that has been done before by private litigants could have a major impact. This concerns especially the work done by the litigants in the *Lliuya v. RWE case*. If the German court would hold RWE liable for their emission and demand that they pay compensation, countries such as Vanuatu could file the same case against RWE or any other major emitter in Germany. Maybe, they could even file such a lawsuit against the German state itself. Such a development has the potential to deliver climate justice climate litigation used by e.g. states, which would mean that climate justice is received by more people. However, a more likely outcome than states systematically suing other states or major corporations, is probably that the establishment of such a liability, would increase pressure on states to displace such lawsuits by agreeing with other states on a mechanism for compensation. In this way, climate litigation could add pressure on the international community to make climate justice accessible for L&D victims.

The scientific progress discussed throughout this thesis is also a cause for hope about the future of private climate litigation. Climate science is universally applicable. Used in tandem with international human rights, it has the potential to make climate litigation more universally applicable. In the *Milieudefensie* case, the litigants used international human rights, encoded in the European Charter on Human Rights⁵¹⁵ and in the International Covenant on Civil and Political Rights,⁵¹⁶ together with climate science to argue that the company Shell had a duty according to Dutch private law to reduce emissions.⁵¹⁷ The Paris Agreement was also used to construct the meaning of this duty.⁵¹⁸ The case was a success and the court ruled in favour of the litigants.⁵¹⁹ If international law and human rights together with climate science, can be used by litigants to interpret national private law, such victories as the *Milieudefensie* case might be repeated in new jurisdictions. This strategy could be used to establish not just a liability to reduce emissions, but also a liability to pay compensation for L&D.

⁵¹² Patrick Toussaint, ‘Loss and Damage and Climate Litigation: The Case for Greater Interlinkage’ (2021) 30 *Review of European, Comparative & International Environmental Law* 16.

⁵¹³ *ibid* 27.

⁵¹⁴ *ibid*.

⁵¹⁵ European Convention on Human Rights 1953 art. 2 & 8.

⁵¹⁶ International Covenant on Civil and Political Rights 1976 art. 6 & 17.

⁵¹⁷ Hösl (n 47) 197–199.

⁵¹⁸ *ibid* 206.

⁵¹⁹ *ibid* 195.

A further effect that is discussed by Ganguly et al. is that climate change litigation can positively affect corporate behaviour for climate mitigation.⁵²⁰ Whether or not the many climate lawsuits will lead to corporate liability for GHG emissions, the risk of such a liability arising seems to be enough to worry company directors.⁵²¹ The *Milieudefensie* case mentioned above, in which Shell was ordered to cut their emissions by 45% by 2030, shows that private climate litigation can substantially change the circumstances in which major oil companies run their operations.⁵²² In this way, climate litigation as a real risk for carbon intensive industries will hopefully speed up the transition towards clean energy by making heavy emissions tied to a high level of corporate risk.

This thesis concludes with some final suggestions. The first one is that climate litigants will continue to file cases and despite inevitable failures the success of some results in dramatic legal consequences. The other is for either legislators in the Global North to change national laws or to enter into international agreements that make L&D compensation accessible for people in the Global South. This would be morally right, but it would also be of benefit for climate mitigation. If the most climate vulnerable societies can receive funds, they would be able to afford technologies and to carry out projects that can help them adapt to the changing climate.⁵²³ Such technologies could help provide drinking water in a sustainable way or protect against floods and droughts.⁵²⁴ In this way, climate justice and climate change mitigation could go hand in hand.

⁵²⁰ Ganguly, Setzer and Heyvaert (n 25) 858.

⁵²¹ *ibid* 858–869.

⁵²² *Milieudefensie et al. v. Royal Dutch Shell plc.* (n 174).

⁵²³ Petra Hedbom/TT, ‘Många klimatflyktingar kan aldrig återvända’ *Svenska Dagbladet* (Stockholm, 15 May 2023) <<https://www.svd.se/a/wAb275/manga-klimatflyktingar-kan-aldrig-atervanda>> accessed 17 May 2023.

⁵²⁴ *ibid*.

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