Seminararbeit im Schwerpunktbereich 3

Klimahaftung von Unternehmen – deutsches Recht und internationales Privat- und Verfahrensrecht

Das Kivalina-Urteil des US Supreme Court und die ältere Rechtsprechung zur deliktsrechtlichen Klimahaftung in den USA (vor 2020)

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Abkürzungsverzeichnis

- 2d ed. …….……..Second edition
- 3d Cir. ……..United States Court of Appeals for the Third Circuit
- 4th Cir. ……...United States Court of Appeals for the Fourth Circuit
- 5th Cir. ……..United States Court of Appeals for the Fifth Circuit
- 9th Cir. ……United States Court of Appeals for the Ninth Circuit

- a. A. ……am Anfang
- AB 32 ……..Assembly Bill 32
- Abs. ……..Absatz
- a. E. ……am Ende
- AEP ……American Electric Power
- AGW ……Anthropogenic Global Warming
- AJCL ……..The American Journal of Comparative Law
- Art. ……...Article
- Ass'n ……Association

- C3S ……Copernicus Climate Change Service
- CAA ……..Clean Air Act
- CAFE ……Corporate Average Fuel Economy
- c.f. ……confer
- cl. ……..Clause
- CLR ……Campbell Law Review
- Co. ……...Company
- Commc'n ……Communications
- Compl. ……Complaint
- COP 27 ……United Nations Climate Change Conference 2022
- Corp. ……Corporation
- CWA ……Clean Water Act

- D.C. Cir. ……..United States Court of Appeals for the District of Columbia
- Dept. / Dep't ……Department
- DLJ ……Duke Law Journal

- E&E ……...Energy & Environment
- E.E.O.C. ……Equal Employment Opportunity Commission
- e.g. ……exempli gratia
- EHP ……Environmental Health Perspectives
- EL ……Environmental Law
- ELQ ……...Ecology Law Quarterly
- EPA ……...Environmental Protection Agency
- EPCA ……Energy Policy and Conservation Act
- et al. ……et alii
- et seq. ……..et sequens
- EU ……Europäische Union

- Exh. …….Exhibit
- f. ……folgende
- F.2d ……Federal Reporter, second series
- F.3d ……Federal Reporter, third series
- Fed.R.Civ.P. ……Federal Rules of Civil Procedure
- Fed. Reg. ……...Federal Register
- FEE ……..Frontiers in Ecology and the Environment
- FELR ……..Fordham Environmental Law Review
- F. Supp. 2d ……Federal Supplement, second series

- GAO ……Government Accountability Office
- GHG ……Greenhouse Gas(es)
- GWP ……..Global Warming Potential

- Id. ……idem
- IDMC ……Internal Displacement Monitoring Centre
- i.e. ……...id est
- Inc. ……..Incorporated
- IPCC ……Intergovernmental Panel on Climate Change

- JSDLP ……McGill International Journal of Sustainable Development Law and Policy

- LCFS ……Low Carbon Fuel Standard
- L.Ed. ……Lawyers' Edition
- LLC ……Limited liability company
- L.P. ……..Limited Partnership

- Metro. Wash. Airport Auth. …….Metropolitan Washington Airports Authority

- NAAQS ……..National Ambient Air Quality Standards
- NARF ……..Native American Rights Fund
- NASEM …….National Academies of Sciences, Engineering, and Medicine
- N.D. Cal. ……United States District Court for the Northern District of California
- NGO …….Non-governmental organization
- No. (auch n.) ……...Number
- NRDC ……Natural Resources Defense Council

- PDD ……Platform on Disaster Displacement
- Pls.' Opp'n …….Plantiffs' Opposition
- PNAS …….Proceedings of the National Academy of Sciences of the United States of America
- PT ……Philosophical Transactions: Mathematical, Physical and Engineering Sciences
- Pub. L. ……..Public laws

- S. …….Seite
- SCR …….The Supreme Court Review
- S.Ct. …….Reporter of Decisions of the Supreme Court of the United States

- S.D. Miss. ……United States District Court for the Southern District of Mississippi
- S.D.N.Y. ……United States District Court for the Southern District of New York
- sec. ……..Section
- Servs. …….Services
- SPUR ……San Francisco Bay Area Planning and Urban Research Association
- Stat. ……United States Statutes at Large

- Tex. Indep. ……Texas Independent
- tit. …….Title

- UCS ……Union of Concerned Scientists
- UK ……United Kingdom
- UN ……..United Nations
- UN-DESA ……United Nations Department of Economic and Social Affairs
- UNFCCC …….United Nations Framework Convention on Climate Change
- UNHRC ……United Nations Human Rights Council
- UNU ……..United Nations University
- UPLR …….University of Pennsylvania Law Review
- U.S. ……...United States Supreme Court
- USA ……United States of America
- U.S.C. ……...United States Code
- USGCRP ……United States Global Change Research Program

- v. ……...versus
- Vand. L. Rev. …….Vanderbilt Law Review
- viz. ……..videlicet
- VOC …….Volatile Organic Compounds
- Vol. ……..Volume

- WL ……Westlaw

A. Einleitung

Der Klimawandel ist allgegenwärtig. Weltweit sind seine drastischen Folgen zu spüren. Als Beispiel genügt ein Blick auf die Flutkatastrophe in Pakistan im vergangenen Jahr, bei der Millionen von Menschen ihr Zuhause und mindestens 1.700 ihr Leben verloren haben.[1] Häufig wird ein Zusammenhang zwischen solchen Extremwetterereignissen und dem menschengemachten Klimawandel geleugnet. Als Begründung wird meist angeführt, dass solche Ereignisse schon immer Teil der Erdgeschichte waren und aus natürlichen Prozessen resultieren.[2] Klimaforscher[3] können jedoch mithilfe von Attributionsforschung heute mit hoher Sicherheit bestimmen, wie viel wahrscheinlicher ein solches sogenanntes *rapid-onset event*[4], wie etwa eine Überflutung, ist.[5] Studien belegen darüber hinaus, dass einige Hitzerekorde so extrem waren, dass sie ohne den Einfluss des Menschen auf das Klimasystem kaum oder gar nicht möglich gewesen wären.[6] Dies zwingt weltweit unzählige Menschen dazu, ihre Heimat zu verlassen.[7] Der Klimawandel und die globale Erwärmung sind unumgängliche Themen.

Dies spiegelt sich auch auf juristischer Ebene wider. Anfang 2017 gab es weltweit mehr als 1.200 Gesetze und Richtlinien zum Klimawandel. 1997 waren es noch rund 60.[8] Auch die Zahl der Gerichtsverfahren zur Klimahaftung hat zugenommen.[9] Die mit Abstand meisten Verfahren wurden bisher in den USA durchgeführt.[10] Seit Mitte der 2000er Jahre ist die Zahl der Klagen dort stark angestiegen.[11]

Im Jahr 2008 machte das ungefähr 400 Einwohner zählende Dorf Kivalina im Nordwesten Alaskas Schlagzeilen, als es mithilfe von Non-Profit Organisationen 24 der größten in den USA tätigen Mineralöl- und Energiekonzerne auf deliktsrechtlichen Schadensersatz aufgrund ihres Beitrags zur globalen Erwärmung

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[1]Centre for Science and Environment, Extreme Weather Events, COP27 2022, 71 (76).
[2]*Khandekar,* Are Extreme Weather Events on the Rise?, E&E, 2013, 537 (538).
[3]Werden Personenbezeichnungen lediglich in der männlichen Form verwendet so schließt dies jeweils das andere Geschlecht mit ein und gilt der besseren Lesbarkeit.
[4]Germanwatch, Slow-onset Processes and Resulting Loss and Damage – An introduction, 2021, S. 4.
[5]Union of Concerned Scientists, The Science Connecting Extreme Weather to Climate Change, S. 2 f.
[6]Union of Concerned Scientists, The Science Connecting Extreme Weather to Climate Change, S. 2.
[7]Dal Pra et al., Environmental migration, Recommendations for the UK Government, 2021, S. 4.
[8]Nachmany et al., Global trends in climate change legislation and litigation, 2017, S. 8.
[9]Nachmany et al., Global trends in climate change legislation and litigation, 2017, S. 13.
[10]Setzer et al., Global trends in climate change litigation: 2019 snapshot, 2019, S. 3.
[11]Setzer et al., Global trends in climate change litigation: 2019 snapshot, 2019, S. 5.

verklagte.[12] Der Fall landete nach einem Zug durch die Instanzen vor dem höchsten Gerichtshof der Vereinigten Staaten, dem United States Supreme Court.[13] Jedoch blieben sowohl diese Klage als auch weitere vergleichbare ohne Erfolg. Im Folgenden sollen die Hintergründe des Kivalina-Urteils sowie zweier weiterer Fälle aus den 2000er Jahren zur deliktischen Klimahaftung in den USA dargestellt werden. Insbesondere werden die Gründe für das Scheitern der Klagen betrachtet.

B. Übersicht

Die Beklagten sollten in den folgenden Fällen im Wesentlichen wegen ihres Beitrags zur globalen Erwärmung durch massive Treibhausgasemissionen deliktisch haften. Die Kläger haben jeweils durch die Auswirkungen der Erderwärmung Eigentumsverletzungen erlitten. Das Ausmaß und die Art der jeweiligen Beeinträchtigung sowie der Umfang der Klage variieren von Fall zu Fall. Es empfiehlt sich daher, sich zunächst einen Überblick über die von den Klägern geltend gemachten Ansprüche und die zugrundeliegenden Sachverhalte zu verschaffen.

Teilweise wurden Ansprüche auf *civil conspiracy* gestützt. Insbesondere im Kivalina-Fall finden sich dazu ausführliche Darlegungen seitens der Kläger. So hat unter anderem ExxonMobil die Öffentlichkeit in Bezug auf die Wissenschaft der globalen Erwärmung bewusst irregeführt. Durch das Anfachen einer scheinwissenschaftlichen Debatte wurde die öffentliche Wahrnehmung gezielt beeinflusst.[14] Dies hat bis heute zur Folge, dass der nachgewiesene menschengemachte Klimawandel teilweise geleugnet wird. Diese und ähnliche Vorwürfe sind zwar in den nachfolgenden Fällen jeweils mitunter Teil der Klagen, werden hier aber nicht näher behandelt. Der Schwerpunkt dieser Arbeit liegt auf den deliktsrechtlichen Schadensersatzansprüchen und den Gründen, warum diese Klagen gescheitert sind.

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[12]NARF, NARF & Alaskan Native Village Sues 24 Oil and Energy Companies for Destruction Caused by Global Warming, abrufbar unter: https://narf.org/narf-alaskan-native-village-sues-24-oil-and-energy-companies-for-destruction-caused-by-global-warming/ (zuletzt abgerufen am 06.05.2023).
[13]*Péloffy,* Kivalina v. Exxonmobil: A Comparative Case Comment, JSDLP, 2013, 119 (119).
[14]Union of Concerned Scientists*,* How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science, 2007, S.3.

I. Native Village of Kivalina v. ExxonMobil Corp. et al.

1. Schadensersatz für Umsiedlungskosten

Im Februar 2008 reichte das Dorf Kivalina bei einem kalifornischen Bezirksgericht Klage gegen ExxonMobil und 23 weitere US-amerikanische Öl-, Kohle- und Energiekonzerne ein. Kivalina liegt auf einem Riff im Nordwesten Alaskas, etwa 100 Kilometer nördlich des Polarkreises.[15] 2008 lebten dort rund 400 Inupiat-Ureinwohner.[16] Die Folgen der globalen Erwärmung drohten bereits damals das Dorf zu zerstören. Es müsse – so die Klageschrift – schnellstmöglich umgesiedelt werden. Nach Berechnungen des US Army Corps of Engineers[17] und des Government Accountability Office[18] würde dies zwischen 195 und 400 Millionen US-Dollar kosten. Diese Summe sollten die Beklagten als Schadensersatz für ihr Handeln, ihren Beitrag zur globalen Erwärmung durch den Ausstoß von Treibhausgasen, zahlen.

Kivalina stützte diese Klage auf das *federal common law,* das Bundesrecht der Vereinigten Staaten.[19] Danach sollen die Beklagten durch ihre Handlungen zu einer *public nuisance* beigetragen haben.[20] Diese definiert sich nach §821B (1) Restatement (Second) of Torts als ein unangemessener Eingriff in ein der Allgemeinheit zustehendes Recht.[21] Kivalina sah hier unter anderem das *Right to Use and Enjoy Property,* also das Recht auf uneingeschränkte und ungestörte Nutzung der eigenen Grundstücke verletzt.[22] Durch diese Verletzung habe Kivalina bereits Schäden in Millionenhöhe in Form von Wertverlust erlitten.[23] Das Handeln jedes einzelnen Beklagten sei für sich betrachtet eine *breach of duty,* also eine Pflichtverletzung gegenüber den Klägern.[24]

Es war kein Zufall, dass die Klage in Kalifornien eingereicht wurde. Grundsätzlich sind nach 28 U.S.C. §1331 alle Bezirksgerichte für eine Zivilklage nach

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[15]Northwest Arctic Borough, Kivalina, abrufbar unter: https://www.nwabor.org/village/kivalina/ (zuletzt abgerufen am 08.05.2023).
[16]Complaint for damages, Kivalina v. ExxonMobil, S. 1, Abs. 1; Statistik des US Census Bureau.
[17]U.S. Army Corps of Engineers*,* Relocation Planning Project Master Plan Kivalina, 2006, Executive Summary S. 2.
[18]GAO*,* Alaska Native Villages: Most are Affected by Flooding and Erosion, but Few Qualify for Federal Assistance, 2003, S. 32.
[19]Complaint for Damages, Kivalina v. ExxonMobil, S. 63, Abs. 252; S. 64, Abs. 261.
[20]Complaint for Damages, Kivalina v. ExxonMobil, S. 2, Abs 6.
[21]Siehe Anhang: A. I.
[22]Complaint for Damages, Kivalina v. ExxonMobil, S. 64, Abs. 264.
[23]Complaint for Damages, Kivalina v. ExxonMobil, S. 64, Abs 260.
[24]Complaint for Damages, Kivalina v. ExxonMobil, S. 67, Abs 281 f.

Bundesrecht zuständig.[25] Allerdings hatte der Bundesstaat Kalifornien zwei Jahre zuvor selbst eine Klimaklage gegen fünf der größten Automobilhersteller eingereicht (siehe unten), die zu diesem Zeitpunkt noch vor dem Berufungsgericht anhängig war. Zudem haben die Beklagten entweder ihren Sitz in Kalifornien gemäß 28 U.S.C. §1391(c)[26] oder betreiben dort Anlagen, die Treibhausgasemissionen verursachen. Somit war der Gerichtstand in diesem Bezirk gemäß 28 U.S.C. §1391(b)(1)[27] und 28 U.S.C. §1391(b)(2)[28] gegeben. Kivalina beantragte außerdem ein *declaratory judgment* nach 28 U.S.C. §2201, wonach die Beklagten auch für zukünftige Schäden haften sollten, die aus der globalen Erwärmung resultieren.[29]

2. Sachverhalt

Die Beklagten gehören zu den größten Emittenten von Treibhausgasen in den USA. Allein ExxonMobil (einschließlich Vorgängerunternehmen) ist für etwa fünf Prozent der weltweiten, von Menschen verursachten CO2-Emissionen der letzten 120 Jahre verantwortlich.[30] In der Klageschrift werden die Beklagten in Öl-, Kohle- und Energiekonzerne unterteilt, die jeweils durch eigenständiges Handeln immense Mengen an Treibhausgasen ausstoßen. Ölkonzerne verursachen beispielsweise massive Emissionen durch die Erschließung und Förderung von Öl. Wenn ein Ölfeld erschlossen wird, wird häufig Erdgas freigesetzt, welches gezielt verbrannt wird. Durch dieses *flaring* entstehen enorme Mengen an CO2-Emissionen.[31] Kraftwerke wie die der Beklagten, die fossile Brennstoffe verbrennen, sind mit einem Ausstoß von 2,6 Milliarden Tonnen jährlich die größte Quelle von CO2-Emissionen in den Vereinigten Staaten.[32] Die Nutzung erneuerbarer Energiequellen und eine damit einhergehende Einsparung an Emissionen sei von der Industrie bisher (zum Zeitpunkt der Klage) überwiegend abgelehnt worden.[33] Die Beklagten

[25]Siehe Anhang: A. II.
[26]Siehe Anhang: A. III.
[27]Siehe Anhang: A. IV.
[28]Siehe Anhang: A. V.
[29]Siehe Anhang: A. VI.; Complaint for Damages, Kivalina v. ExxonMobil, S. 67, Abs. 5.
[30]*Hunter/ Salzman,* Negligence in the Air: The Duty of Care in Climate Change Litigation, UPLR, 2007, 1741 (1750).
[31]*Senior,* Gas Flaring Waste Revealed by Satellite Data, FEE, 2007, 404 (404).
[32]Complaint for Damages, Kivalina v. ExxonMobil, S. 42, Abs 172.
[33]Complaint for Damages, Kivalina v. ExxonMobil, S. 43, Abs 175 f.

seien daher für einen erheblichen Teil der Treibhausgase in der Erdatmosphäre verantwortlich, die die konkreten Schäden in Kivalina verursachten.

Kivalina trägt vor, dass es wissenschaftlicher Konsens sei, dass der Ausstoß von Treibhausgasen zu einer Veränderung des Erdklimas führe. Treibhausgase in der Erdatmosphäre (insbesondere CO2) absorbieren einen Teil der von der Erdoberfläche abgegebenen Wärmestrahlung, die sonst unmittelbar ins Weltall abgestrahlt würde. Die Folge ist eine globale Erwärmung. Diese Erkenntnis ist nicht neu. Es werden zahlreiche wissenschaftliche Publikationen zitiert, die diesen Effekt zum Teil bereits in den 1950er Jahren prognostiziert haben.[34]

Infolge der Klimaerwärmung schmilzt das Meereis des Nordpolarmeeres, das Kivalina bisher im Winter vor schweren Küstenstürmen schützte, früher. Durch die nun zunehmenden Sturmschäden ist das Dorf erheblichen Überschwemmungs- und Erosionsproblemen ausgesetzt. Wohnhäuser und Infrastruktur drohen durch den nachgebenden Boden abzubrechen und ins Meer zu stürzen. Aufgrund dieser konkreten Gefahr muss das Dorf umgesiedelt werden. Kivalina argumentiert, dass die Beklagten hätten wissen müssen, welche Auswirkungen ihre Emissionen auf die globale Erwärmung hätten, insbesondere auch auf gefährdete Gemeinden, wie Küstendörfer in Alaska. Trotz dieses Wissens hätten sie weiterhin erheblich zur globalen Erwärmung beigetragen. Die Beklagten hätten es versäumt, die Auswirkungen ihrer Emissionen auszugleichen oder diese umfänglich abzuschwächen. Auf Grundlage der vergangenen und gegenwärtigen Beiträge der Beklagten zur globalen Erwärmung, der *public nuisance,* fordert Kivalina eine finanzielle Entschädigung für die Kosten einer notwendigen Umsiedlung.[35]

II. People of the State of California v. General Motors Corp. et al.

1. Schadensersatz für Aufwendungen aufgrund globaler Erwärmung

In diesem Fall klagte der *Attorney General* Kaliforniens im Jahr 2006 gegen General Motors und fünf weitere Automobilhersteller. Der *Attorney General* klagte

[34]Complaint for Damages, Kivalina v. ExxonMobil, S. 33, Abs. 136-138.
[35]*Abate,* Corporate Responsibility and Climate Justice: A Proposal for a Polluter-financed Relocation Fund for Federally Recognized Tribes at Risk of Climate Change, FELR, 2013, 10 (13).

dabei stellvertretend für das Volk des Bundesstaates.[36] Die Klage, die sich ebenfalls auf das US-amerikanische Bundesrecht stützte, war unter anderem auf Schadensersatz gerichtet. Die globale Erwärmung habe bereits die Umwelt, die Wirtschaft, sowie Gesundheit und Wohlbefinden der Bürger Kaliforniens geschädigt.[37] Die Beklagten hätten durch den Ausstoß von CO2 und anderen Treibhausgasen, die bei der Verbrennung fossiler Brennstoffe durch die von ihnen hergestellten Fahrzeuge entstehen, wissentlich zur globalen Erwärmung beigetragen. Diese stelle eine *public nuisance* im Sinne des §821B (1) Restatement (Second) of Torts dar.[38]

Kalifornien gab an, jährlich immense Summen für Planung und Überwachung der spürbaren Auswirkungen der Erderwärmung auszugeben. Insbesondere wurden Gelder aufgewendet, um das Ausmaß und die Art künftiger Schäden zu bestimmen und diesen entgegenzuwirken.[39] Darüber hinaus sollen Beträge in Milliardenhöhe in den Hochwasserschutz und Infrastrukturänderungen investiert worden sein. Ein konkreter Betrag, der als Schadensersatz gefordert wird, wird nicht genannt. Die Schäden in Kalifornien seien jedoch massiv. Der Staat forderte daher die Zuerkennung von Schadensersatz nach Maßgabe der vorgelegten Beweise.[40]

Beantragt wird auch hier ein *declaratory judgment* nach 28 U.S.C. §2201.[41] Durch ein solches Feststellungsurteil sollen die Beklagten auch für zusätzliche finanzielle Schäden aufkommen, die Kalifornien in der Zukunft durch den Beitrag zum anhaltenden Problem der globalen Erwärmung erleidet.[42]

2. Sachverhalt

Die globale Erwärmung hat unter anderem zu einem Rückgang der Schneedecke im Hochgebirge der Sierra Nevada geführt.[43] Diese ist eine der wichtigsten Süßwasserquellen Kaliforniens. Auch die Ozonbelastung in den städtischen

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[36]*Hunter/ Salzman,* Negligence in the Air: The Duty of Care in Climate Change Litigation, UPLR, 2007, 1741 (1751).
[37]Complaint for Damages, California v. General Motors, S. 2, Abs 4.
[38]Complaint for Damages, California v. General Motors, S. 13, Abs. 65; Siehe Anhang A. I.
[39]Complaint for Damages, California v. General Motors, S. 10, Abs 44.
[40]Complaint for Damages, California v. General Motors, S. 14, Abs 1 f.
[41]Complaint for Damages, California v. General Motors, S. 14, Abs. 3; Siehe Anhang A. VI.
[42]Complaint for Damages, California v. General Motors, S. 2, Abs. 2; S. 3, Abs 6.
[43]Persad et al., Troubled Waters: Preparing for Climate Threats to California's Water System, 2020, S. 8-9.

Gebieten und die Gefahr von Waldbränden durch Trockenheit haben zugenommen.[44] Zudem steigt der Meeresspiegel an der kalifornischen Küste.[45] Dies führt dort zu Erosionsproblemen. Auch seien heimische Spezies bedroht. All diese Auswirkungen der Erderwärmung verursachten in Kalifornien Schäden in Milliardenhöhe.[46]

Der jährliche Ausstoß von Treibhausgasen allein im Bundesstaat Kalifornien ist höher als in einigen entwickelten Ländern.[47] Den Beklagten wird vorgeworfen jahrelang Millionen von Fahrzeugen hergestellt zu haben, bei deren Betrieb massive Mengen an Treibhausgasen, insbesondere CO2, ausgestoßen wurden. Dies trage zum Treibhauseffekt und damit zur globalen Erwärmung bei. Es werden zahlreiche wissenschaftliche Belege für die Klimaerwärmung und ihre Folgen angeführt. Anschließend wird Bezug auf den Beitrag der Beklagten genommen. Etwa neun Prozent des weltweiten CO2-Ausstoßes resultierte (2006) aus Emissionen von Kraftfahrzeugen der Beklagten in den Vereinigten Staaten.[48] Jährlich würden in Kalifornien rund 189 Millionen Tonnen Treibhausgase von Kraftfahrzeugen ausgestoßen.[49] Die Beklagten seien damit für einen erheblichen Teil der Schäden in Kalifornien verantwortlich.

Der Bundesstaat zahlt jährlich laut eigenen Angaben immense Summen für Studien, Planung, Überwachung und Kompensation der Folgen der globalen Erwärmung. Durch den Anstieg des Meeresspiegels und Küstenerosion mussten Schutzmaßnahmen errichtet werden. So seien unter anderem die Trinkwasserreservoirs des Sacramento Bay-Delta durch eindringendes Salzwasser gefährdet.[50] Die frühere Schneeschmelze in der Sierra Nevada bedroht nicht nur die Wasserversorgung, sondern erhöht auch das Risiko von Überschwemmungen.[51]

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[44]*Mann/ Gleick,* Climate change and California drought in the 21st century, PNAS, 2015, 3858 (3858).
[45]SPUR*,* Climate change hits home: Adaptation strategies for the San Francisco Bay Area, 2011, S. 8.
[46]Complaint for Damages, California v. General Motors, S. 10, Abs. 45-48.
[47]*Grossman,* Climate Change and the Law, AJCL, 2010, 223 (246).
[48]Complaint for Damages, California v. General Motors, S. 2, Abs 3.
[49]Statistik des California Air Resources Board: California Greenhouse Gas Emissions for 2000 to 2019.
[50]Complaint for Damages, California v. General Motors, S. 2 a. E., f., Abs. 4.
[51]Persad et al., Troubled Waters: Preparing for Climate Threats to California's Water System, Research Report, Oktober 2020, S. 1-2, 8.

Aus diesen Gründen fordert der Bundesstaat Entschädigung für die weitreichenden Schäden, die die Beklagten durch ihren Beitrag zur globalen Erwärmung verursacht haben sollen.

III. Comer v. Murphy Oil et al.

1. Schadensersatz für Zerstörung durch Hurrikan Katrina

Infolge der verheerenden Zerstörung durch Hurrikan Katrina klagten 2005 14 Privatpersonen vor einem Bezirksgericht in Mississippi gegen über 140 Öl-, Chemie-, Energie- und Versicherungsunternehmen.[52] Neben den größten Ölkonzernen wie Shell, ExxonMobil, und Chevron richtete sich die Klage auch gegen „Oil and Refining Entities 1-100".[53] Somit sollten alle in Mississippi tätigen, nicht näher bezeichneten Ölgesellschaften haften. Die Beklagten sollten durch ihren Beitrag zur globalen Erwärmung dafür mitverantwortlich sein, dass der Hurrikan eine solche Intensität erreichen konnte. Als erlittene Schäden bringen die Kläger die Zerstörung und den Verlust der Nutzung ihrer Grundstücke und ihres Eigentums an. Auch der Verlust von Angehörigen, die Beeinträchtigung des üblichen Lebensablaufs, seelisches Leid sowie sämtliche Kosten für Aufräumarbeiten wurden geltend gemacht.[54] Die Kläger verlangten Schadensersatz nach *Mississippi common law.* Sie erhoben *claims of public and private nuisance, negligence* und *trespass.* Darüber hinaus wurden *punitive damages* verlangt, also ein Schadensersatz, der über den tatsächlich erlittenen Schaden hinausgeht.[55]

a) Public und Private Nuisance

Auch bei einer Klage auf Grundlage des *Mississippi common law* kommen die Definitionen des Restatement (Second) of Torts zur Anwendung. So sehen die Kläger im Sinne des §821B (1) (*public nuisance*) das der Allgemeinheit zustehende

[52]*Stamas,* Comer v. Murphy: The Fifth Circuit Grapples with Its Role in Hearing Climate Change Tort Claims, ELQ, 2010, 711 (712).
[53]Complaint for Damages, Comer v. Murphy Oil, S. 10, Abs. 29.
[54]Complaint for Damages, Comer v. Murphy Oil, S. 12 f., Abs. 36.
[55]Complaint for Damages, Comer v. Murphy Oil, S. 13, Abs. 37.

Right to Use and Enjoy Property durch die Zerstörung infolge des Hurrikans verletzt.[56]

Nach §822 Restatement (Second) of Torts kann eine Person für eine *private nuisance* haftbar gemacht werden, wenn ihr Verhalten eine rechtliche Ursache für eine Verletzung eines anderen an der privaten Nutzung eines Grundstücks ist.[57] Als Verhalten versteht sich hier der Ausstoß von Treibhausgasen und der Beitrag zur globalen Erwärmung der Beklagten.

b) Trespass

In ihrem *trespass claim* machen die Kläger geltend, dass die Treibhausgasemissionen der Beklagten dazu geführt hätten, dass Salzwasser, Schutt und andere Materialien auf das Grundstück der Kläger gelangt sind und es beschädigten. Veranlasst eine Person das Eindringen eines Gegenstands in ein Grundstück, handelt es sich um *trespass to land.*[58]

c) Negligence

Zuletzt behaupten die Kläger, dass die Beklagten eine Sorgfaltspflicht (*duty of care*) hätten, ihre Geschäfte so zu führen, dass die Umwelt, die öffentliche Gesundheit und privates Eigentum und die Bürger von Mississippi nicht gefährdet würden. Die Beklagten sollen diese Pflicht verletzt haben, indem sie erhebliche Mengen von Treibhausgasen emittierten, was zu einer Verstärkung des Hurrikans geführt habe, der die Zerstörung von Land und Eigentum der Kläger verursachte.

2. Sachverhalt

Hurrikan Katrina gilt bis heute als eine der verhängnisvollsten Naturkatastrophen der Vereinigten Staaten. Mehr als 1.300 Menschen starben durch den Sturm und seine Folgen.[59] Zu den betroffenen Bundesstaaten gehörte unter anderem

[56]Siehe Anhang: A. I.
[57]Siehe Anhang: A. VII.
[58]Cornell Law School Legal Information Institute, Trespass, abrufbar unter: https://www.law.cornell.edu/wex/trespass (zuletzt abgerufen am 09.05.2023).
[59]National Hurricane Center, Tropical Cyclone Report Hurricane Katrina, 2023, S. 11.

Mississippi. Dort befanden sich in Küstennähe die Grundstücke der Kläger. Diese wurden durch Windschäden des Sturms verwüstet. Die Kläger bringen an, der Sturm habe sich durch das warme Wasser und die warmen Umweltbedingungen im Golf von Mexiko verstärkt.[60]

Der Hurrikan bildete sich zunächst über den Bahamas und überquerte Florida als Hurrikan der Kategorie eins. Anschließend gewann er im Golf von Mexiko rasch an Stärke. Dort erreichte er den Status der Kategorie fünf.[61] Diese Bedingungen, die die Verstärkung des Hurrikans begünstigten, seien eine direkte Folge der globalen Erwärmung. Die Meerestemperatur war überdurchschnittlich hoch. Wirbelstürme wie ein Hurrikan ziehen Wasser aus der Tiefe. Ist dieses kalt, so kann dies den Sturm schwächen. Hurrikan Katrina zog jedoch warmes Wasser. Dieses tiefe, warme Wasser war ein entscheidender Faktor und trug zweifellos zur Intensität des Hurrikans bei.[62]

Die Kläger beschuldigten die Beklagten zu einem erheblichen Teil für die globale Erwärmung und deren Folgen verantwortlich zu sein.[63] Die Ölkonzerne haben durch ihre Raffinerie- und Produktionstätigkeiten einen immensen Ausstoß an Treibhausgasen verursacht. Trotz Warnungen seitens der Wissenschaft haben die Beklagten ihre schädlichen Aktivitäten fortgesetzt oder sogar noch intensiviert.

Aufgrund dessen konnte der Hurrikan diese Ausmaße annehmen und die Küste von Mississippi in dieser Intensität treffen. Resultierend daraus haben die Kläger die oben genannten Verluste erlitten. Über den Schadensersatz hinaus sollten die Beklagten angesichts ihrer groben Fahrlässigkeit auch *punitive damages* zahlen.

C. Scheitern der Klagen

Die hier aufgeführten Klagen blieben allesamt ohne Erfolg. Im Folgenden werden die Gründe für das Scheitern in den Fällen *Kivalina v. ExxonMobil* und *California v. General Motors* dargestellt. Auf den Fall *Comer v. Murphy Oil* wird gesondert eingegangen.

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[60]Complaint for Damages, Comer v. Murphy Oil, S. 11, Abs. 30.
[61]National Weather Service, Extremely Powerful Hurricane Katrina Leaves a Historic Mark on the Northern Gulf Coast, abrufbar unter: www.weather.gov/mob/katrina (zuletzt abgerufen am 05.05.2023).
[62]*McCallum/ Heming,* Hurricane Katrina: An Environmental Perspective, PT, 2006, 2099 (2102).
[63]Complaint for Damages, Comer v. Murphy Oil, S. 13, Abs. 38.

I. Political Question Doctrine

Die Befugnis, einen bestimmten Fall vor Gericht zu verhandeln, ist in Art. III der US-Verfassung festgelegt. Gemäß Art. III, sec. 2, cl. 1 erstreckt sich die gerichtliche Zuständigkeit auf *cases* und *controversies*.[64] Der US Supreme Court hat anerkannt, dass diese Beschränkung für die Aufrechterhaltung der in der Verfassung verankerten dreigliedrigen Gewaltenteilung von entscheidender Bedeutung ist.[65] Der Gerichtshof hat außerdem darauf hingewiesen, dass Streitigkeiten über politische Fragen nicht in die Zuständigkeit der Bundesgerichte nach Art. III fallen.[66]

Die *Political Question Doctrine* besagt, dass eine Frage, deren Entscheidung nichtjuristisches Wissen erfordert oder die ausdrücklich dem US-Kongress oder dem Präsidenten zugewiesen wurde, in den politischen Bereich fällt. Sie geht auf den Fall *Marbury v. Madison* aus dem Jahr 1803 zurück. Der oberste Richter John Marshall stellte in diesem Fall fest, dass bestimmte Handlungen des *Secretary of State* nur politisch überprüfbar seien.[67] Er ging von einer Unterscheidung zwischen Rechtsfragen, die die Gerichte zu lösen haben, und politischen Fragen, deren Beantwortung sie anderen überlassen müssen, aus.[68] Diese *Doctrine* ist somit Teil des Systems der Gewaltenteilung. Bestimmte Fragen sind politischer, nicht rechtlicher Natur. Daher müssen sie von den politischen Zweigen der Regierung, also Legislative und / oder Exekutive beantwortet werden, nicht von der Justiz. Ein Streit, dem also eine *non-justiciable political question* zugrunde liegt, liegt außerhalb der Zuständigkeit der Gerichte.

1. Baker v. Carr

Einer der bis heute wegweisenden Fälle im Bereich der *Political Question Doctrine* ist *Baker v. Carr* der 1962 vom US Supreme Court entschieden wurde.[69] In diesem Fall stellte das Gericht fest, dass das *Redistricting,* also die Neueinteilung von Wahlbezirken, keine politische Frage sei und somit vor Gericht verhandelt werden

[64]Siehe Anhang: A. VIII.
[65]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 6, 7-10.
[66]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 6, 13-14.
[67]Congressional Research Service, The Political Question Doctrine: Historical Background (Part 2), 2022.
[68]*Mulhern,* In Defense of the Political Question Doctrine, UPLR, 1998, 97 (102).
[69]*Choper,* The Political Question Doctrine: Suggested Criteria, DLJ, 2005, 1457 (1458).

konnte.[70] Das Gericht entwickelte in seiner Entscheidung sechs Faktoren, beziehungsweise Merkmale zur Beurteilung einer Streitfrage als *non-justiciable political question.* Diese (nach der Entscheidung benannten) Baker-Faktoren können demnach die Zuständigkeit eines Gerichts ausschließen. Dabei genügt es, wenn einer dieser Faktoren vorliegt.

Folgende Merkmale indizieren das Vorliegen einer politischen Frage:

[1] Das Vorhandensein einer verfassungsrechtlichen Zuordnung der Frage zu einem politischen Bereich, die durch den eindeutigen Gesetzeswortlaut nachgewiesen werden kann. Wenn also die Regelung der Angelegenheit verfassungsrechtlich der Legislative oder der Exekutive und ihren jeweiligen Organen zugewiesen ist, handelt es sich folglich um eine nicht justiziable Frage.

[2] Das Fehlen von greifbaren Normen, beziehungsweise einer rechtlichen Grundlage zur Entscheidung der Frage durch die Gerichte.

[3] Es ist für das Gericht nicht möglich, den Fall zu entscheiden, ohne eine erste Entscheidung politischer Natur zu treffen, die eindeutig in den Bereich des außergerichtlichen Ermessens fällt.

[4] Die Justiz kann keine unabhängige Entscheidung treffen, ohne den anderen Zweigen der Regierung den gebührenden Respekt zu verweigern.

[5] Ein außergewöhnliches Bedürfnis, an einer bereits getroffenen politischen Entscheidung unhinterfragt festzuhalten.

[6] Mögliche Verwirrung durch unterschiedliche Äußerungen verschiedener Behörden zu ein und derselben Frage.[71]

2. Anwendung durch Gerichte bei Klimahaftungsfällen

Im Rahmen der Klimahaftungsfälle der 2000er Jahre beantragten die Beklagten jeweils die Abweisung der Klagen wegen fehlender sachlicher Zuständigkeit des Gerichts. In ihren Anträgen machten die Beklagten unter anderem geltend, dass die Ansprüche der Kläger nach der *Political Question Doctrine* nicht justiziabel seien. Die Gerichte prüften dies anhand der Baker-Faktoren.

[70] *Neal,* Baker v. Carr: Politics in Search of Law, SCR, 1962, 252 (271).
[71] Originalfassung siehe Anhang: Kivalina v. Exxonmobil 2009, N.D. Cal., S.7.

a) Kivalina-Urteil des N.D. Cal. 2009

Am 30. September 2009 wies ein kalifornisches Bezirksgericht in erster Instanz im Fall *Kivalina v. ExxonMobil* die Klage ab. Die Beklagten beantragten zuvor Klageabweisung nach Fed.R.Civ.P. 12(b)(1) und 12(b)(6).[72] Das Gericht sei demnach sachlich nicht zuständig. Darüber hinaus gäbe es auch keinen gültigen Anspruch.[73] Ein solcher Einwand kann entweder eine *facial attack* oder eine *factual attack* sein.[74] Eine *facial attack* liegt vor, wenn der Antragsteller vorbringt, dass die Behauptungen in einer Klage unzureichend sind, um die sachliche Zuständigkeit des Gerichts zu begründen.[75] Bei der Beurteilung einer *facial attack* muss das Gericht die Tatsachenbehauptungen des Klägers als wahr unterstellen und diese so günstig wie möglich für den Kläger auslegen.[76] Dabei ist das Gericht auf die vorliegenden Schriftsätze beschränkt. Stellt das Gericht fest, dass es nicht zuständig ist, muss es die Klage nach Fed.R.Civ.P. 12(h)(3) abweisen.[77] Bei einer *factual attack* kann der Antragsteller Materialien außerhalb der Schriftsätze vorlegen, um seinen Antrag zu stützen.[78] Hier wird also nicht die Zuständigkeit, sondern der Sachverhalt bestritten. Im Fall Kivalina handelte es sich um eine *facial attack.*[79]

aa) Erster Baker-Faktor

Die Beklagten argumentierten unter anderem, dass es gegen den ersten Baker-Faktor verstoßen würde, wenn Kivalina die Klimaklage weiterverfolgen dürfte. Dies stelle einen Eingriff in die verfassungsrechtliche Autorität der politischen Zweige der Regierung über die Außenpolitik dar.[80] Die Regelung von Treibhausgasemissionen sei wegen ihrer globalen Dimension dieser zuzuordnen. Konkret behaupteten die Beklagten, dass Legislative und Exekutive es abgelehnt haben, Obergrenzen für Emissionen zu beschließen, solange es keine Vereinbarung mit Entwicklungsländern gäbe. Ein erfolgreiches Vorgehen gegen die globale Erwärmung erfordere auch einen globalen Ansatz, der die Zusammenarbeit von

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[72]Siehe Anhang: A. IX; A. X.; Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 3, 25-S. 4, 14.
[73]*Hamabe,* Functions of Rule 12(b)(6) in the Federal Rules of Civil Procedure: A Categorization Approach, CLR, 1993, 119 (125).
[74]California v. General Motors, 2007, N.D. Cal., S. 3, 18-19.
[75]California v. General Motors, 2007, N.D. Cal., S. 3, 21-22.
[76]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 5, 18-20.
[77]Siehe Anhang: A. XI.
[78]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 5, 21-22.
[79]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 6, 1-2.
[80]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 8, 16-18.

Industrie- und Entwicklungsländern einschließt. Eine rückwirkende Festlegung von Emissionsobergrenzen durch ein Gericht würde also in außenpolitische Belange eingreifen.[81]

Der N.D. Cal. stellte zunächst fest, dass die Außenpolitik grundsätzlich Verantwortung und Aufgabe der Exekutive sei.[82] Die bloße Tatsache, dass außenpolitische Belange von einer gerichtlichen Entscheidung potenziell betroffen sein können, führt jedoch nicht unmittelbar zu einer Enthaltung des Gerichts. Bezogen darauf wird *Baker v. Carr* zitiert. Der US Supreme Court stellte fest, dass es ein Irrtum sei anzunehmen, dass jeder Fall der die Außenpolitik berührt, außerhalb der gerichtlichen Zuständigkeit liege.[83] Dies sei ein zu weit gehender Ansatz. Nicht alle Fälle, die Außenbeziehungen tangieren, können aus dem Zuständigkeitsbereich der Gerichte genommen werden.

So habe der Klimawandel zweifelsfrei eine internationale, sogar globale, Dimension. Die Beklagten hätten aufgezeigt, dass die Fragen der globalen Erwärmung außenpolitische Belange berühren können. Doch diese Tatsache stelle den Fall nicht ipso facto außerhalb der Reichweite der Justiz. Insbesondere habe keiner der Beklagten eine verfassungsrechtliche Bestimmung angebracht, aus deren Wortlaut sich eine eindeutige Befugnis der Exekutive oder Legislative zur Regelung von Treibhausgasemissionen ableiten ließe.[84] Folglich sei der erste Baker-Faktor nicht einschlägig.

bb) Zweiter Baker-Faktor

Ausgangspunkt für die Untersuchung des zweiten Baker-Faktors ist zunächst eine Klärung des Prüfungsumfangs. Das Gericht muss sich fragen, ob es über die rechtlichen Mittel verfügt, in diesem Fall eine Entscheidung zu treffen. Gibt es keine materielle Rechtsgrundlage für eine Entscheidung, so kann die Justiz nicht Abhilfe schaffen.[85]

Kivalina macht geltend, dass das Verhalten der Beklagten einen Beitrag zur *public nuisance* der globalen Erwärmung darstellt. Das Gericht zitiert die Definition des

[81]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 8, 20-27.
[82]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 9, 1-3.
[83]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 9, 6-11.
[84]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 9, 16-20.
[85]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 10, 7-8.

Restatement (Second) of Torts[86], ein unangemessener Eingriff in ein der Allgemeinheit zustehendes Recht. Nach Ansicht der Kläger ist hier zu prüfen, ob das Verhalten der Beklagten eine Beeinträchtigung öffentlicher Schutzgüter von andauernder Natur darstellt.[87] Bei Zugrundelegung diese Beurteilungsmaßstabs würde jedoch nur eine Hälfte des Verhaltens geprüft. Der Fehler in der Argumentation der Kläger liegt nach Ansicht des Gerichts darin, dass sich ein solcher *public nuisance claim* nicht ausschließlich auf die Unzumutbarkeit der Beeinträchtigung und des erlittenen Schadens konzentrieren kann.[88] Ob ein Eingriff unangemessen ist, hängt vielmehr von einer Abwägung zwischen der Schwere des Schadens und dem Nutzen des Verhaltens ab. §828 Restatement (Second) of Torts gibt hier einen Maßstab vor, den das Gericht heranzieht.[89] Um den Nutzen des Verhaltens der Beklagten zu beurteilen, muss eine Reihe von Faktoren berücksichtigt werden, unter anderem der Hauptzweck des Verhaltens sowie der soziale Wert dieses Zwecks. Dabei ist auf die Sicht eines besonnenen und objektiven Dritten abzustellen. Das Gericht müsste also den Nutzen der Öl- und Energiegewinnung gegen das Risiko abwägen, dass der Ausstoß von Treibhausgasen zu einer Zerstörung des alaskischen Küstendorfes führen kann.[90] Diesen Aspekt haben die Kläger laut Entscheidung übersehen. Sie hätten keinerlei greifbare Rechtsgrundlage vorgelegt, auf der eine rationale und begründete Entscheidung basieren könnte.

Klagen basierend auf Fällen von Luft- und Wasserverschmutzung können nach Ansicht des Gerichts nicht solche Standards im Sinne des Baker-Faktors begründen.[91] In solchen Fällen waren Unternehmen für eine konkret zurechenbare Verschmutzung an einem bestimmten Ort verantwortlich. Bei einer Klage aufgrund von Wasserverschmutzung kann so beispielsweise ein konkretes Gewässer als Schadensort genannt werden.[92] Die Kausalkette ist hier leicht nachvollziehbar.

Im vorliegenden Fall sei der Schaden eine Folge der globalen Erwärmung, die durch unzählige Quellen weltweit verursacht wird und die den gesamten Planeten und seine Atmosphäre beeinflusst. Eine geographische Eingrenzung ist selbst nach

[86]Siehe Anhang: A. I.
[87]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 10, 14-16.
[88]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 10, 20-22.
[89]Siehe Anhang: A. XII.
[90]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 11, 21-24.
[91]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 13, 15-18.
[92]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 12, 23-24.

Ansicht der Kläger nicht möglich.[93] Darüber hinaus handelt es sich um eine Reihe von für sich stehenden Handlungen, die in ihrem Zusammenwirken über einen unbestimmten Zeitraum die globale Erwärmung verursachen. Die Forderung, die Kivalina stellt, sei außerdem von einer anderen Dimension als in bisherigen Luftverschmutzungsfällen.

Das Gericht kommt zu dem Schluss, dass keine Anhaltspunkte vorliegen, auf deren Grundlage es eine begründete Entscheidung treffen könnte. Damit ist der zweite Baker-Faktor erfüllt.[94]

cc) Dritter Baker-Faktor

Das Gericht prüft darüber hinaus auch, ob zur Beilegung des Rechtsstreits ein erstes politisches Urteil legislativer Natur gefällt werden müsste. Der dritte Baker-Faktor soll so verhindern, dass ein Gericht der Legislative eine wichtige politische Entscheidung abnimmt.[95]

Kivalina betont, dass sie keinen Unterlassungsanspruch geltend machen und sich das Gericht somit nicht (konkludent) mit der Aufgabe befassen muss, rückwirkend Emissionsobergrenzen zu bestimmen. Der N.D. Cal. sieht hier jedoch dieselbe „fehlerhafte Logik“ wie zuvor, nämlich, dass die Prüfung sich nur auf den Schaden, also die Auswirkungen des Handelns erstreckt.[96] Wie bereits dargelegt, muss aber auch der Nutzen des Handelns der Beklagten betrachtet werden. Die Tatsache, dass kein Unterlassungsanspruch geltend gemacht wird, ist hierfür irrelevant. Das Gericht müsste also den sozialen Nutzen des Handelns gegen die verursachten Schäden abwägen. Der Lösung dieser Abwägung wohnt zwangsläufig ein konkludentes Auferlegen von Emissionsgrenzen inne. Das Gericht müsste eine Grenze festlegen, ab welcher der Nutzen nicht mehr im Verhältnis zum Schaden steht.[97]

Darüber hinaus zwingt eine solche Klage, das Gericht zu entscheiden, wer die Kosten für die Auswirkungen der globalen Erwärmung zu tragen hat. Die Beklagten sind hier 24 Öl-, Kohle-, und Energieunternehmen. Die Kläger räumen selbst ein,

[93]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 13, 2-5.
[94]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 13, 22-25.
[95]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 14, 2-6.
[96]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 14, 10-13.
[97]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 14, 16-18.

dass der Transportsektor ebenfalls für einen massiven Ausstoß an Treibhausgasen verantwortlich ist. Dennoch findet sich unter den Beklagten kein Unternehmen aus diesem Bereich.[98] Auch wenn es sich bei den Beklagten um die größten Emittenten von Treibhausgasen in den USA handelt, sind nach Ansicht des Gerichts die Schuldzuweisungs- und Kostenfrage der Legislative und Exekutive überlassen. Das Gericht müsste hier sonst eine erste politische Entscheidung in diesem Feld treffen.[99] Folglich spricht auch der dritte Baker-Faktor für eine Abweisung.

dd) Zwischenergebnis

Der N.D. Cal. sah in seinem Urteil den zweiten und dritten Baker-Faktor erfüllt. Folglich liege dem Rechtsstreit eine nicht justiziable Frage zugrunde. Das Gericht sei nach der *Political Question Doctrine* sachlich nicht zuständig.

b) California-Urteil des N.D. Cal. 2007

Im Jahr 2007 urteilte der N.D. Cal. bereits im Fall *California v. General Motors*. Auch hier stellten die Beklagten Anträge nach Fed.R.Civ.P. 12(b)(1) und 12(b)(6).[100] Das Gericht beginnt seine *analysis* zunächst mit einer chronologischen Darstellung der US-amerikanischen Umweltpolitik, beginnend mit dem *National Climate Program* aus dem Jahr 1978 bis zur *UN Framework Convention on Climate Change* 1992.[101] In Anbetracht dieser Reihe an Handlungen der Legislative und Exekutive stellt sich die Frage, ob es sich um eine nicht justiziable politische Frage handelt.

aa) Dritter Baker-Faktor

Das Gericht beginnt mit der Prüfung des dritten Baker-Faktors. Dabei zieht es den Fall *Chevron USA v. Natural Resources Defense Council* als Referenz heran. Diese Entscheidung spricht von einem Balancieren von widerstrebenden Interessen bei Luftverschmutzungsfällen. Es müsse ein Ausgleich gefunden werden zwischen den

[98]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 15, 22-26.
[99]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 15, 4-9.
[100]Siehe Anhang: A. IX.; A X.; California v. General Motors, 2007, N.D. Cal., S. 3, 13 – S. 5, 4.
[101]California v. General Motors, 2007, N.D. Cal., S. 5, 6 – S. 7, 2.

Interessen, die auf strengere Regelungen zur Verringerung der Umweltverschmutzungen abzielen und den Interessen, die wirtschaftliche Entwicklung nicht durch zu strikte Regelungen zu hemmen.[102] Eine solche Interessenabwägung ist nach Ansicht des N.D. Cal. hier ohne eine politische Vorentscheidung nicht möglich.

Außerdem wird der Fall *AEP v. Connecticut* (Stand 2007) betrachtet. In diesem Fall klagten mehrere Bundesstaaten, darunter auch Kalifornien, gegen einige der größten Elektrizitätsunternehmen der Vereinigten Staaten.[103] Die Beklagten sollten ihre Emissionen so jedes Jahr kontinuierlich reduzieren. Das zuständige Gericht betrachtete ebenfalls die Historie der Umweltpolitik und im Lichte dessen die Nichtregulierung von CO2-Emissionen durch Kongress und Exekutive. Die angestrebte Emissionsminderung in *AEP* war nach Ansicht des Gerichts ohne eine erste politische Entscheidung nicht möglich.[104] So sah das Gericht hier eine nicht justiziable Frage. Dies wurde von der EPA, der vom Kongress mit Verwaltungsbefugnissen im Bereich des Umweltrechts ausgestatteten Behörde, bestätigt.[105] Unter anderem erklärte die Behörde, eine einseitige Regulierung der eigenen Treibhausgasemissionen könnte die Bemühungen der USA schwächen, Entwicklungsländer davon zu überzeugen ihre eigenen Emissionen zu verringern.[106]

Der N.D. Cal. sieht im Fall *California v. General Motors* dieselben Hindernisse wie in *AEP*. Auch wenn der Bundesstaat hier Schadensersatz fordert, müsste das Gericht für die Beantwortung der Frage, ob ein unangemessener Eingriff vorliegt, eine erste politische Entscheidung treffen.[107] Das Gericht betrachtete anschließend die Gesetzeslage. So sehen die Bestimmungen des CAA unter anderem einheitliche nationale Emissionsstandards für gefährliche Luftschadstoffe vor.[108] Stellt die EPA fest, dass ein bestimmter Schadstoff negative Auswirkungen auf die öffentliche Gesundheit hat, muss die Behörde nationale Luftqualitätsstandards entwickeln. Diese müssen von den Bundesstaaten innerhalb einer bestimmten Frist umgesetzt

[102]Originaltext siehe Anhang: California v. General Motors, 2007, N.D. Cal., S. 10; Original.
[103]California v. General Motors, 2007, N.D. Cal., S. 10, 11-14.
[104]California v. General Motors, 2007, N.D. Cal., S. 10, 19-23.
[105]*Ahlers,* Presidential Authority over EPA Rulemaking under the Clean Air Act, EL, 2014, 31 (47).
[106]California v. General Motors, 2007, N.D. Cal., S. 11, 1-12.
[107]California v. General Motors, 2007, N.D. Cal., S. 11, 16-19.
[108]California v. General Motors, 2007, N.D. Cal., S. 12, 12-14.

werden.[109] 42 U.S.C. §7543 (sec. 209(a) des CAA) schließt jedoch eine einzelstaatliche Regulierung der Emissionen neuer Kraftfahrzeuge ausdrücklich aus.[110] Der EPCA regelt darüber hinaus für die Automobilindustrie verbindliche Standards für den durchschnittlichen Kraftstoffverbrauch (CAFE).[111]

Für sich genommen, nahmen der CAA und EPCA (2007 zum Urteilszeitpunkt) nach Sicht des Gerichts keinen Bezug auf die globale Erwärmung und Richtlinien für CO2-Emissionen. Das Gericht war jedoch der Auffassung, dass diese Regelungen im Lichte der internationalen Debatte und den daraus resultierenden politischen Maßnahmen zu verstehen sind.[112] Eine Zuerkennung von Schadensersatz würde das Gericht fälschlicherweise in diese geopolitische Debatte hineinziehen. Somit kommt der N.D. Cal. zu dem Schluss, dass dieser *tort claim* nicht ohne eine erste politische Entscheidung gelöst werden kann.

bb) Erster Baker-Faktor

Die Beklagten machten außerdem geltend, der erste Baker-Faktor sei erfüllt. Als verfassungsrechtliche Zuordnung der Frage zum politischen Bereich führten sie hier zum einen die *Commerce Clause* an.[113] Art. 1 sec. 8 cl. 3 der Verfassung gibt dem Kongress die Befugnis den Handel mit anderen Nationen, zwischen den einzelnen Bundesstaaten, sowie mit den Ureinwohnerstämmen zu regeln.[114] Nach Ansicht der Beklagten soll der zwischenstaatliche Automobilmarkt belastet werden. Dies stelle einen Eingriff in die Befugnis des Kongresses dar. Darüber hinaus berufen sie sich auf die den politischen Zweigen übertragene Zuständigkeit für die Außenpolitik nach Art. II sec. 2 cl. 2 der Verfassung.[115] Die Regulierung von Treibhausgasemissionen sei eine Angelegenheit der Außenpolitik.

Das Gericht stellte auch hier erhebliche Zweifel bezüglich der Zuständigkeit fest. Eine solche Klage berühre in ausreichendem Maße die Befugnisse der politischen Zweige im Bereich des zwischenstaatlichen Handels und der Außenpolitik. Die

[109]California v. General Motors, 2007, N.D. Cal., S. 12, 22 – S. 13, 2.
[110]Siehe Anhang: A. XIII.
[111]California v. General Motors, 2007, N.D. Cal., S. 13, 9 – 13; *Schmidt,* Debate Percolates over CAFE Standards, EHP, 2002, 466 (467).
[112]California v. General Motors, 2007, N.D. Cal., S. 14, 6-10.
[113]California v. General Motors, 2007, N.D. Cal., S. 18, 10-14.
[114]Siehe Anhang: A. XIV.
[115]Siehe Anhang: A. XV.

Klage anzuerkennen hätte zur Folge, dass sämtliche Automobil-, Energie-, und Ölunternehmen, sowie andere Industrien mit einem neuen, gerichtlich geschaffenen *tort* konfrontiert wären.[116] Somit wäre das rechtmäßige Betätigen innerhalb der jeweiligen Handelsbereiche potenziell schadensersatzpflichtig. Das Gericht sieht hier somit einen möglichen Eingriff in den zwischenstaatlichen Handel und damit in die Befugnisse der Legislative. Des Weiteren haben die politischen Regierungszweige, insbesondere die Exekutive, die Position der Vereinigten Staaten in Bezug auf die globale Erwärmung ausreichend festgelegt.[117] Es wurden bewusst keine Emissionsgrenzen gesetzt. Dies würde laut EPA das diplomatische Ziel verfehlen (siehe oben).[118] Folglich handelt es sich hierbei um eine außenpolitische Angelegenheit. Somit kommt das Gericht zu dem Schluss, dass auch der erste Baker-Faktor erfüllt ist.

cc) Zweiter Baker-Faktor

Bei der Prüfung des dritten Baker-Faktors hat das Gericht bereits darauf hingewiesen, dass es implizit zu entscheiden hätte, welches Maß an CO2-Emissionen unrechtmäßig ist. Dies wäre eine erste politische Entscheidung von nationalem Ausmaß. Darüber hinaus mangele es an einer juristisch handhabbaren Grundlage für eine Entscheidung. Insbesondere fehle dem Gericht ein Mittel zur Feststellung, welche Akteure für die *nuisance* verantwortlich sind und zu ihr beitragen. Die vom Bundesstaat geltend gemachten Schäden könnten angesichts der weltweiten Emissionsquellen nicht ausschließlich den Beklagten zugerechnet werden. Nach Ansicht des Gerichts gibt es keinen rechtlichen Rahmen für einen Schadensersatzanspruch für die Auswirkungen der globalen Erwärmung.

dd) Zwischenergebnis

Die Baker Faktoren eins bis drei sind gegeben. Somit war das Gericht nicht sachlich zuständig und wies die Klage ab.

[116]California v. General Motors, 2007, N.D. Cal., S. 19, 22-26.
[117]California v. General Motors, 2007, N.D. Cal., S. 20, 5-7.
[118]California v. General Motors, 2007, N.D. Cal., S. 20, 9-10.

II. Lack of Standing im Fall Kivalina v. ExxonMobil

Standing nach Art. III ist eine Grundvoraussetzung der Zulässigkeit.[119] Die Partei, die einen Rechtsbehelf einlegen will, muss *Standing,* also Klagebefugnis nachweisen. Dafür müssen drei Voraussetzungen erfüllt sein. Es muss eine tatsächliche Verletzung eines rechtlich geschützten Interesses vorliegen. Des Weiteren muss ein hinreichend nachweisbarer Zusammenhang zwischen dem Schaden und der Handlung des Beklagten bestehen. Schließlich muss es zumindest wahrscheinlich, beziehungsweise möglich sein, dass der Schaden durch die vom Kläger mit der Klage angestrebten Kompensation beseitigt wird.[120] Das Erfüllen dieser Voraussetzungen ist das „*irreducible constitutional minimum*".[121]

1. Kausalität

Im Fall *Kivalina v. ExxonMobil* ist die zweite Voraussetzung, das Kausalitätserfordernis, problematisch. Der Schaden muss adäquat auf die beanstandeten Handlungen der Beklagten zurückzuführen sein. Er muss „*fairly traceable*" sein.[122] Der Nachweis einer unmittelbaren Verursachung ist hierbei nicht zwangsläufig erforderlich. Der Schaden darf nicht auf einer unabhängigen Handlung eines am Prozess nicht beteiligten Dritten beruhen.

Kivalina räumt ein, dass die erlittenen Schäden nicht ausschließlich den Beklagten angelastet werden können. Es genüge jedoch der Nachweis, dass die Beklagten zur Verursachung des Schadens beigetragen hätten.[123] Dieser Grundsatz beruht auf einer Reihe von Entscheidungen zu Wasserverschmutzungsfällen auf der Grundlage des Clean Water Act.[124] Kläger müssen in solchen Fällen nicht mit wissenschaftlicher Sicherheit nachweisen, dass allein die Abwässer eines bestimmten Beklagten die Schäden verursacht haben. Da häufig mehrere Unternehmen an der Verschmutzung beteiligt sind, genügt der Nachweis einer „*substantial likelihood*"[125] einer Beteiligung. Außerdem müssen Kläger eine gewisse geographische Nähe zu dem verschmutzten Gewässer aufweisen

[119]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 15, 11.
[120]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 15, 14-18.
[121]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 16, 1-2.
[122]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 17, 5-8.
[123]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 16, 16-17.
[124]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 16, 19-20.
[125]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 17, 8-11.

können.[126] Nach Ansicht von Kivalina gibt es keinen Grund, die Anwendbarkeit dieser Prinzipien auf CWA-Fälle zu beschränken. Daher sollten diese Grundsätze auch hier Anwendung finden.[127]

Der N.D. Cal. teilt diese Auffassung nicht. Ein *common law nusiance claim* sei nicht mit einem gesetzlichen *water pollution claim* gleichzustellen. Durch den CWA wird die Menge der Abwässer, die legal abgelassen werden dürfen, streng geregelt.[128] Kann also ein Kläger eine Überschreitung nachweisen, so wird die erforderliche *substantial likelihood* vermutet. Konträr dazu gibt es keinerlei solche Regelungen für den Ausstoß von Treibhausgasen.[129] Folglich könne dieser Ansatz hier nicht greifen, da die Emission von Treibhausgasen schon keine Verletzungshandlung darstellen könne.

Das Gericht geht in seiner Begründung noch einen Schritt weiter. Selbst wenn man von einer hypothetischen Anwendbarkeit des CWA-Ansatzes ausgehe, sei die Kausalität nicht hinreichend dargelegt. Der Ausstoß von Treibhausgasen gehe bereits Jahrhunderte zurück. Es gäbe keine realistische Möglichkeit, einen bestimmten Effekt der globalen Erwärmung einem bestimmten Emittenten zuzuordnen.[130] Ebenso wenig könne der Pfad einer CO2-Emission verfolgt werden. Darüber hinaus verlange ein Anspruch auf Grundlage des CWA eine gewisse geographische Nähe des Klägers zu dem verschmutzten Gewässer. Nach Auffassung der Kläger ist der räumlich relevante Bereich im Fall der globalen Erwärmung jedoch die ganze Welt.[131] Folglich wäre jeder Mensch weltweit berechtigt Ansprüche geltend zu machen und die Voraussetzung der geographischen Nähe faktisch außer Kraft gesetzt.[132]

Nach Ansicht des N.D. Cal. beruhen die Argumente der Kläger auf einer Reihe von Ereignissen, die auf den übermäßigen Ausstoß von Treibhausgasen durch die Beklagten zurückzuführen sein sollen. Die Glieder in dieser Kausalkette seien jedoch zu schwach, um eine Klagebefugnis zu begründen.

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[126]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 18, 11-14.
[127]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 19, 1-4.
[128]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 19, 6-7.
[129]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 19, 16-17.
[130]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 20, 15-19.
[131]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 21, 25-26.
[132]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 21, 26 – S. 22, 2.

2. Lockerung der Klagebefugnis

Kivalina machte einen Anspruch auf Lockerung der Klagebefugnis wegen *Special Solitude* geltend. Dies geht zurück auf *Massachusetts v. EPA*.[133] In diesem Fall reichte der Staat Massachusetts zusammen mit Umweltorganisationen unter anderem eine *rulemaking petition* ein, in der die EPA aufgefordert wurde, die CO2-Emissionen von neuen Kraftfahrzeugen zu regulieren. Der Supreme Court bejahte hier die Klagebefugnis.[134] Tritt ein Staat dem Bund bei, gibt er bestimmte souveräne Vorrechte ab, wie auch das Recht Kraftfahrzeugemissionen innerhalb des Staates zu verringern. Dieses Befugnis liegt bei der Bundesregierung, die die EPA mit der Vorgabe von Normen für Kraftfahrzeugemissionen beauftragt hat.[135] Angesichts des Interesses am Schutz der quasi-hoheitlichen Interessen sprach der Supreme Court Massachusetts *Special Solitude* zu. Der Bundesstaat war somit klagebefugt.[136]

Kivalina habe unter den gegebenen Umständen keinen solchen Anspruch. Anders als der Staat Massachusetts versuchen die Kläger nicht, Verfahrensrechte in Bezug auf eine Regelungsbefugnis einer Behörde durchzusetzen. Vielmehr handelt es sich um eine Schadensersatzklage, die sich gegen eine Vielzahl von Unternehmen richtet. Kivalina kann sich auch nicht auf die quasi-hoheitlichen Interessen berufen.[137] *Special Solitude* basiert auf den Rechten, die ein Staat abgibt, wenn er dem Bund beitritt.

3. Zwischenergebnis

Mangels Kausalität wurde die Klage auch wegen *Lack of Standing* abgewiesen.

III. Verdrängen des bundesrechtlichen Anspruchs durch den CAA

Kivalina ging gegen die Klageabweisung des N.D. Cal. in Berufung. 2012 befasste sich der 9th Cir. mit dem Fall. Das Berufungsgericht prüfte unter der *Doctrine of*

[133]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 22, 19-23.
[134]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 22, 24-26.
[135]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 23, 1-3.
[136]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 23, 5-7.
[137]Kivalina v. ExxonMobil, 2009, N.D. Cal., S. 23, 10-12.

Displacement ob ein *federal common law nuisance claim* anwendbar ist, oder dieser durch legislative Handlung verdrängt wird.

1. Maßstab

Das *federal common law* behandelt grundsätzlich auch den Bereich des Umweltrechts, insbesondere überbundesstaatliche Luftverschmutzung. Bei nationalen Luftverschmutzungsklagen ist es also anwendbar, jedoch nur beschränkt.[138] Wenn ein Bundesgesetz direkt die zugrundeliegende Frage beantwortet, so findet das *federal common law* keine Anwendung, da der Gesetzgeber das Gewohnheitsrecht verdrängt hat. Es unterliegt somit der Autorität des Kongresses.

Das Gericht muss also prüfen, ob der Kongress die Frage adressiert hat. Die bloße Existenz von Gesetzen, die zur Lösung der Frage anwendbar sind, reicht jedoch nicht bereits aus, um ein Verdrängen des Anspruchs zu bejahen. Vielmehr muss der Kongress eine hinreichende, legislative Lösung zur Verfügung gestellt haben, die das Problemfeld besetzt und somit das *federal common law* verdrängt. [139]

2. Guideline des US Supreme Court

Zunächst wird auf *AEP* (Stand 2011) verwiesen. Der Fall präsentiert nach Ansicht des 9th Cir. in einem anderen Kontext dieselbe Frage wie im hier zugrundeliegenden Fall.[140] Die Bundesstaaten klagten auf Reduzierung der Emissionen (siehe oben). Nach Ansicht des US Supreme Court stellte jedoch der CAA bereits ein Mittel zur Begrenzung inländischer CO2-Emissionen dar. Der CAA und die Befugnisse, die er der EPA verleiht, verdrängen jeden bundesrechtlichen Anspruch, die Minderung von Emissionen zu verlangen.[141]

Laut *Massachusetts* hat die EPA die gesetzliche Befugnis, die Emission von Treibhausgasen zu regulieren, da diese unter die Definition des CAA von luftverschmutzenden Stoffen fallen, 42 U.S.C. §7602(g).[142] Infolge der

[138]Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11652, 1-2.
[139]Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11653 f., 3.
[140]Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11654, 4, 6.
[141]Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11654, 5.
[142]Siehe Anhang: A. XVI.; Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11667, B, Abs. 1.

Entscheidung veröffentlichte die EPA 2009 ihr *Endangerment Finding*.[143] Darin stellte die Behörde fest, dass die Anreicherung von wärmespeichernden Treibhausgasen in der Atmosphäre die Gesundheit und das Wohlergehen der Bevölkerung gefährdet. Unter anderem wurden der Rückgang der Schneedecke und der Anstieg des Meeresspiegels auf die globale Erwärmung infolge von Treibhausgasemissionen zurückgeführt.[144] Infolgedessen konnte also die EPA unter anderem CO2-Emissionen regulieren.

Der Kongress hat sich somit nach Ansicht des 9th Cir. in Form der Ermächtigung der EPA zur Regulierung von Treibhausgasemissionen direkt zu der im Kivalina-Fall entscheidenden Frage geäußert.[145] Er hat die Entscheidung, ob und wie Emissionen reguliert werden der EPA zugewiesen. Diese Zuweisung verdrängt das *federal common law.*[146] Durch den CAA hat er ein Regelwerk, sowie Mechanismen zur Durchsetzung festgelegt. Die Abwesenheit eines Schadensersatzanspruches ist dementsprechend keine Lücke, die das *federal common law* füllen muss.[147] Der Kongress hätte diese Möglichkeit in den CAA aufnehmen können, entschied sich jedoch (bisher) dagegen. Unter Anwendung der dargestellten Entscheidungen verdrängt folglich der CAA den *public nuisance claim* von Kivalina.

D. Comer v. Murphy Oil – Aufhebung der Entscheidung

I. Klageabweisung des S.D. Miss.

Am 30. August 2007 wurde eine Anhörung durchgeführt. Zuvor hatten die Beklagten beantragt, die Klage abzuweisen. Der S.D. Miss. wies die Klage aus den in der mündlichen Verhandlung zu Protokoll gegebenen Gründen aufgrund von *Lack of Standing* und der *Political Question Doctrine* ab.[148]

[143]NRDC, EPA's Endangerment Finding: The Legal and Scientific Foundation for Climate Action, 2017, S. 1.
[144]NRDC, EPA's Endangerment Finding: The Legal and Scientific Foundation for Climate Action, 2017, S. 2.
[145]Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11656.
[146]Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11657.
[147]Kivalina v. ExxonMobil, 2012, 9th Cir., S. 11671.
[148]Comer v. Murphy Oil, 2007, S.D. Miss., S. 1.

II. Entscheidung des 5th Cir.

In der Berufungsinstanz hob der 5th Cir. die Entscheidung des S.D. Miss. teilweise auf. So entschied das Berufungsgericht, dass die Kläger berechtigt waren, ihre Ansprüche weiter zu verfolgen und dem Fall keine nicht justiziable Frage politischer Natur zugrunde liegt.

1. Standing

In seiner Prüfung beginnt das Berufungsgericht mit dem *Standing-Requirement.* Die Kläger berufen sich hier auf das Recht des Bundesstaates Mississippi. Somit müssen die Kläger sowohl die einzelstaatlichen als auch die bundesrechtlichen Anforderungen erfüllen.[149]

Die einzelstaatlichen Anforderungen sind in Art. III sec. 24 der Verfassung von Mississippi geregelt. Die Verfassung sieht vor, dass alle Gerichte offen sind und jede Person für einen Schaden an Land, Eigentum, Person oder ihrem Ruf auf dem ordentlichen Rechtsweg Rechtsmittel einlegen kann und Recht und Gerechtigkeit walten sollen.[150] Wirkt sich also ein Verhalten eines Beklagten nachteilig aus oder macht der Kläger ein vertretbares Interesse am Gegenstand des Rechtsstreits geltend, so ist *Standing* nach dem Recht von Mississippi zu bejahen. Hier sind nach Auffassung des Gerichts eindeutig Interessen der Kläger durch die Treibhausgasemissionen der Beklagten nachteilig betroffen.[151]

Die US-amerikanische Verfassung stellt striktere Anforderungen. Das Gericht fasst hier die *nuisance, trespass* und *negligence claims* zusammen.[152] Alle beruhen auf einem von den Klägern geltend gemachten Kausalzusammenhang zwischen Treibhausgasemissionen, der globalen Erwärmung, der Intensität von Hurrikan Katrina und der Zerstörung des Eigentums der Kläger. Die Beklagten argumentierten, dass die Schäden nicht in angemessener Weise (*fairly traceable)* auf die Handlungen zurückgeführt werden können.[153] Als Berufungsinstanz muss der 5th Cir. die Behauptungen der Kläger jedoch als wahr annehmen. Die Klage wird durch wissenschaftliche Berichte und Studien gestützt, die einen

[149]Comer v. Murphy Oil, 2009, 5th Cir., S. 5.
[150]Siehe Anhang: A. XVII.
[151]Comer v. Murphy Oil, 2009, 5th Cir., S. 6.
[152]Comer v. Murphy Oil, 2009, 5th Cir., S. 7.
[153]Comer v. Murphy Oil, 2009, 5th Cir., S. 9.

Kausalzusammenhang zwischen den Emissionen der Beklagten und der Intensität des Hurrikans herstellen lassen können. Der 5th Cir. ist hier der Auffassung, dass der Zusammenhang (zum erlittenen Schaden) zu einem späteren Zeitpunkt von den Klägern tatsächlich nachgewiesen, zum Zeitpunkt der Berufung jedoch als wahr angesehen werden muss.[154] *Massachusetts* wird herangezogen. Nach Ansicht des 5th Cir. hat der US Supreme Court durch das Bejahen von *Standing* auch konkludent einen Zusammenhang zwischen anthropogenen Treibhausgasemissionen und der globalen Erwärmung zumindest für möglich gehalten.[155] Ist die Kausalkette also in diesem Fall plausibel genug, so muss dieses Prinzip auch hier zur Anwendung kommen.

Der Einwand, die Emissionen seien nur für einen minimalen Teil der Schäden verantwortlich, ist nach Ansicht des Berufungsgerichts nicht tragfähig. In *Massachusetts* behauptete die EPA zunächst, eine Regulierung der Emissionen von neuen Kraftfahrzeugen würde praktisch keinen Effekt auf die globale Erwärmung haben. Laut Supreme Court trage diese Ablehnung der Emissionsregulierung sogar zum Schaden des Bundesstaates bei.[156] Der 5th Cir. versteht dies also so, dass Handlungen dann *fairly traceable* sind, wenn sie zu Treibhausgasemissionen beitragen. Es müssen keine Handlungen sein, die diese direkt verursachen.[157] Somit ist nach Ansicht des Gerichts hier *Standing* zu bejahen.

2. Political Question Doctrine

Der 5th Cir. definiert zunächst den Begriff *„justiciable“*. So ist eine Frage justiziabel, wenn sie verfassungsrechtlich von einem Bundesgericht entschieden werden kann. Eine Frage, die exklusiv dem Kongress oder dem Präsidenten zugeordnet ist, kann somit nicht von einem Bundesgericht entschieden werden.[158]

Sinn der *Political Question Doctrine* ist es, einen Eingriff der Justiz in einen eindeutig den anderen Regierungszweigen zugeordneten Bereich zu verhindern. Die Justiz soll also nicht in die Gewaltenteilung eingreifen.[159] Die Baker-Faktoren, die zur Beurteilung einer potenziell politischen Frage herangezogen werden, dürfen

[154]Comer v. Murphy Oil, 2009, 5th Cir., S. 10.
[155]Comer v. Murphy Oil, 2009, 5th Cir., S. 10 a. E.
[156]Comer v. Murphy Oil, 2009, 5th Cir., S. 11.
[157]Comer v. Murphy Oil, 2009, 5th Cir., S. 12.
[158]Comer v. Murphy Oil, 2009, 5th Cir., S. 18 a. A.
[159]Comer v. Murphy Oil, 2009, 5th Cir., S. 20 a. E.

jedoch nach Sicht des 5th Cir. nicht als eigenständige Definitionen betrachtet werden.[160] Vielmehr sollen diese eine Art Entscheidungshilfe darstellen, die für Interpretation offengehalten werden muss. Die Baker-Faktoren können daher nicht starr für sich stehen, sondern müssen zusammen mit der Verfassung und den Bundesgesetzen für eine korrekte Beurteilung der politischen Natur einer Frage Anwendung finden.[161]

Möchte eine Partei also Klageabweisung aufgrund des nicht justiziablen, politischen Charakters der zugrundeliegenden Frage erreichen, so muss sie eine exklusive Zuordnung der Frage zu den politischen Regierungszweigen darstellen. Die *Political Question Doctrine* verbietet justizielles Einschreiten also nach Sicht des 5th Cir. nur dann, wenn die konkrete Angelegenheit, die entschieden werden muss, verfassungsrechtlich der exklusiven Autorität eines politischen Zweiges der Regierung unterliegt.[162] Ob, und in welchem Ausmaß eine Angelegenheit der exklusiven Autorität zugeordnet ist, dürfen die Gerichte selbst entscheiden.[163]

In Fällen der deliktsrechtlichen Klimahaftung stellt sich die Frage, ob ein (übermäßiger) Ausstoß von Treibhausgasen einen Schadensersatzanspruch für erlittene Schäden infolge der globalen Erwärmung begründen kann. Der 5th Cir. sieht hier hinsichtlich der zugrundeliegenden Thematik keine verfassungsrechtliche Zuordnung zu einem politischen Zweig. Somit sei die Anwendung der Baker-Faktoren gar nicht erst notwendig.[164] Selbst wenn angewandt, überzeugen diese das Gericht nicht. So konnten die Beklagten weder eine textlich nachweisbare verfassungsrechtliche Zuordnung noch das Fehlen einer greifbaren gesetzlichen Grundlage darlegen.[165]

Die Beklagten beriefen sich unter anderem auf die oben dargestellte Entscheidung *California v. General Motors*. Nach Ansicht des Berufungsgerichts basiert diese Entscheidung jedoch auf einem juristischen Fehler und ist hier außerdem nicht vergleichbar.[166] Das Bezirksgericht ging fälschlicherweise von einer gerichtlichen Interessenabwägung aus. Dabei habe es die Entscheidung *Chevron USA v. Natural Resources Defense Council* falsch interpretiert. So sollen nach Ansicht des N.D.

[160]Comer v. Murphy Oil, 2009, 5th Cir., S. 22 a. A.
[161]Comer v. Murphy Oil, 2009, 5th Cir., S. 22.
[162]Comer v. Murphy Oil, 2009, 5th Cir., S. 23.
[163]Comer v. Murphy Oil, 2009, 5th Cir., S. 26.
[164]Comer v. Murphy Oil, 2009, 5th Cir., S. 28 a. A.
[165]Comer v. Murphy Oil, 2009, 5th Cir., S. 28.
[166]Comer v. Murphy Oil, 2009, 5th Cir., S. 29 a. A.

Cal. Gerichte in Luftverschmutzungsfällen ein Gleichgewicht herstellen zwischen den Interessen, die auf strengere Regelungen zur Verringerung der Umweltverschmutzung abzielen und den Interessen, die wirtschaftliche Entwicklung nicht mit strengeren Regelungen zu bremsen.[167] Nach Auffassung des 5th Cir. bezieht sich diese Passage des Chevron-Urteils jedoch auf den Interessenausgleich im Gesetzgebungsverfahren des Kongresses.[168] Das Bezirksgericht soll somit den falschen Schluss aus der Entscheidung gezogen haben. Eine solche Abwägung sozialer und wirtschaftlicher Interessen ist legislativer Natur und könne und dürfe nicht von Bundesgerichten vorgenommen werden.[169]

Des Weiteren sei *California v. General Motors* nicht vergleichbar, da dort ein *State Attorney* vertretend für den Bundesstaat nach Bundesrecht klagte.[170] Hier klagen Privatleute auf Grundlage des Rechts von Mississippi. Ansprüche nach einzelstaatlichem Recht in Bezug auf die globale Erwärmung hat der Kongress darüber hinaus in keinem Gesetz ausgeschlossen. Die Beklagten konnten nicht überzeugend darlegen, wie die der Klage inhärenten Fragen exklusiv einem bundespolitischen Regierungszweig zugeordnet sind.[171] Folglich stellen sie nach Überzeugung des 5th Cir. keine nicht justiziablen Fragen dar.

3. Zwischenergebnis

Die Kläger haben nach Ansicht des 5th Cir. ausreichende Tatsachen vorgetragen, um *Standing* nachzuweisen. Die Ansprüche sind außerdem justiziabel. Ob tatsächlich alle Voraussetzungen nach *Mississippi tort law* erfüllt sind und die Kausalkette tatsächlich plausibel ist, beurteilt das Gericht nicht. Diese Prüfung überlässt es dem Bezirksgericht. Der 5th Cir. hob das Urteil auf und verwies den Fall zurück.[172]

[167]Comer v. Murphy Oil, 2009, 5th Cir., S. 29.
[168]Comer v. Murphy Oil, 2009, 5th Cir., S. 29 a. E.
[169]Comer v. Murphy Oil, 2009, 5th Cir., S. 30.
[170]Comer v. Murphy Oil, 2009, 5th Cir., S. 33.
[171]Comer v. Murphy Oil, 2009, 5th Cir., S. 34.
[172]Comer v. Murphy Oil, 2009, 5th Cir., S. 35.

E. Fazit

Kalifornien zog die Klage 2009 infolge des *Endangerment Finding* der EPA und anderer Maßnahmen der Obama-Regierung hinsichtlich der Regulierung von CO2-Emissionen zurück. Im Jahr 2013 wies der US Supreme Court den Antrag von Kivalina auf gerichtliche Überprüfung der Entscheidung des 9th Cir. kommentarlos ab. Damit wurde den *federal common law public nuisance claims* in Bezug auf Schäden durch Treibhausgasemissionen und den Auswirkungen der globalen Erwärmung ein Ende gesetzt.[173]

Alle hier aufgeführten Klagen wurden eingereicht, bevor die EPA begann, Treibhausgasemissionen zu regulieren. Dies führt bei heutiger Lektüre der Entscheidungen teilweise zu Widersprüchen. Grundsätzlich führten jedoch zunächst *Lack of Standing* und die *Political Question Doctrine* zur Abweisung. Im Jahr 2011 entschied der US Supreme Court dann einstimmig in *AEP*, dass (Schadensersatz-)Ansprüche nach Bundesrecht durch den CAA verdrängt werden. Die ältere Rechtsprechung zur deliktischen Klimahaftung in den USA zeigt also einerseits, dass der Weg über das Bundesrecht für die Kläger versperrt ist.

Andererseits zeigte beispielsweise der Fall *Comer v. Murphy Oil,* dass Ansprüche nach dem Recht eines Bundesstaates aussichtsreicher sind. Die Klage scheiterte später unter anderem aufgrund von Befangenheit eines Richters, was dazu führte, dass das Gericht seine Beschlussfähigkeit verlor. Die Entscheidung des 5th Cir. signalisierte jedoch, dass auch eine andere Sichtweise seitens der Gerichte möglich ist. Das Kausalitätserfordernis bleibt weiterhin problematisch. Kläger müssen bestimmte Voraussetzungen nach dem jeweiligen einzelstaatlichen Recht erfüllen, um einen überzeugenden Kausalzusammenhang geltend machen zu können. Gelingt dies jedoch, kann das *State law* potenziell Grundlage für eine erfolgreiche deliktsrechtliche Klimahaftungsklage sein.

[173] *Johnson,* Native Village of Kivalina v. ExxonMobil Corp: Say Goodbye to Federal Public Nuisance Claims for Greenhouse Gas Emissions, ELQ, 2013, 557 (563).

Anhang

A. Gesetzestexte (geordnet nach Nennung im Text)

I. Restatement (Second) of Torts §821B (1)

Public Nuisance

(1) A public nuisance is an unreasonable interference with a right common to the general public.

II. 28 U.S.C. §1331

Federal question

The district courts shall have original jurisdiction of all civil actions arising under the Constitution, laws, or treaties of the United States.

III. 28 U.S.C. §1391(c)

Venue generally

(c) Residency.–For all venue purposes–

(1) a natural person, including an alien lawfully admitted for permanent residence in the United States, shall be deemed to reside in the judicial district in which that person is domiciled;
(2) an entity with the capacity to sue and be sued in its common name under applicable law, whether or not incorporated, shall be deemed to reside, if a defendant, in any judicial district in which such defendant is subject to the court's personal jurisdiction with respect to the civil action in question and, if a plaintiff, only in the judicial district in which it maintains its principal place of business; and
(3) a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants.

IV. 28 U.S.C. §1391(b)(1)

Venue generally

(b) Venue in General.–A civil action may be brought in–

(1) a judicial district in which any defendant resides, if all defendants are residents of the State in which the district is located

V. 28 U.S.C. §1391(b)(2)

[…] (siehe IV.)

(2) a judicial district in which a substantial part of the events or omissions giving rise to the claim occurred, or a substantial part of property that is the subject of the action is situated

VI. 28 U.S.C. §2201

Creation of remedy

(a) In a case of actual controversy within its jurisdiction […] any court of the United States, upon the filing of an appropriate pleading, may declare the rights and other legal relations of any interested party seeking such declaration, whether or not further relief is or could be sought. Any such declaration shall have the force and effect of a final judgment or decree and shall be reviewable as such.

(b) […]

VII. Restatement (Second) of Torts §822

General Rule

One is subject to liability for a private nuisance if, but only if, his conduct is a legal cause of an invasion of another's interest in the private use and enjoyment of land, and the invasion is either

(a) intentional and unreasonable, or

(b) unintentional and otherwise actionable under the rules controlling liability for negligent or reckless conduct, or for abnormally dangerous conditions or activities.

VIII. Art. III, Section 2, Clause 1 U.S. Constitution

Article III - Judicial Branch

Section 2 - Justiciability

Clause 1 - Cases or Controversies

The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public Ministers and Consuls;—to all Cases of admiralty and maritime Jurisdiction;—to Controversies to which the United States shall be a Party;—to Controversies between two or more States;—between a State and Citizens of another State,—between Citizens of different States,—between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

IX. 12(b)(1) Federal Rules of Civil Procedure

Rule 12. Defenses and Objection: When and How Presented; Motion for Judgment on the Pleadings; Consolidating Motions; Waiving Defenses; Pretrial Hearing

(b) How To Present Defenses. Every defense to a claim for relief in any pleading must be asserted in the responsive pleading if one is required. But a party may assert the following defenses by motion:

(1) lack of subject-matter jurisdiction;

X. 12(b)(6) Federal Rules of Civil Procedure

[…] (siehe IX.)

(6) failure to state a claim upon which relief can be granted;

XI. 12(h)(3) Federal Rules of Civil Procedure

[…] (siehe IX.)

(h) Waiving And Preserving Certain Defenses.

(3) *Lack of Subject-Matter Jurisdiction.* If the court determines at any time that it lacks subject-matter jurisdiction, the court must dismiss the action.

XII. Restatement (Second) of Torts §828

Utility of Conduct–Factors Involved

In determining the utility of conduct that causes an intentional invasion of another's interest in the use and enjoyment of land, the following factors are important:

(a) the social value that the law attaches to the primary purpose of the conduct;

(b) the suitability of the conduct to the character of the locality; and

(c) the impracticability of preventing or avoiding the invasion.

XIII. 42 U.S.C. §7543

State standards

(a) Prohibition

No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as

condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.

XIV. Art. 1 Section 8 Clause 3 U.S. Constitution

Article I - Legislative Branch

Section 8 - Enumerated Powers

Clause 3 - Commerce

The Congress shall have Power To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes.

XV. Art. 2 Section 2 Clause 2 U.S. Constitution

Article II - Executive Branch

Section 2 - Powers

Clause 2 - Advice and Consent

He shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur; and he shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law […].

XVI. 42 U.S.C. §7602(g)

Definitions

When used in this chapter–

(g) The term "air pollutant" means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used.

XVII. Art. III Section 24 Mississippi Constitution

Article III - Bill of Rights

Section 24. Open courts; remedy for injury.

All courts shall be open; and every person for an injury done him in his lands, goods, person, or reputation, shall have remedy by due course of law, and right and justice shall be administered without sale, denial, or delay.

B. Klageschriften, Gerichtsentscheidungen

Klageschriften und Gerichtsentscheidungen sind in der folgenden Reihenfolge abgedruckt. Auf welche Seiten im Text Bezug genommen wurde, lässt sich den runden Klammern entnehmen.

- Native Village of Kivalina and City of Kivalina v. ExxonMobil Corporation et al., 2008, Complaint for Damages (S. 2, 33, 42, 43, 63, 64, 67); **[2, 33]**.
- Native Village of Kivalina and City of Kivalina v. ExxonMobil Corporation et al., 2009, N.D. Cal., Order granting Defendants' motions to dismiss for lack of subject matter jurisdiction (S. 5, 6, 8-23); **[6, 7, 13, 15, 22]**.
- Native Village of Kivalina and City of Kivalina v. ExxonMobil Corporation et al., 2012, 9th Cir., Opinion by Judge Thomas; Concurrence by Judge Pro (S. 11652-11654, 11656, 11657, 11671); **[11656, 11657, 11671]**.

- People of the State of California v. General Motors Corporation et al., 2006, Complaint for Damages (S. 2, 3, 10, 13, 14); **[3, 12]**.
- People of the State of California v. General Motors Corporation et al., 2007, N.D. Cal., Order granting Defendants' motion to dismiss (S. 5-7, 10-14, 18-20); **[5, 10, 12, 14]**.
- Auszug aus Chevron v. NRDC (1984) auf den California v. General Motors und Comer v. Murphy Oil Bezug nehmen.

- Ned Comer, husband of/and Brenda Comer et al. v. Murphy Oil et al., 2005, Complaint for Damages (S. 10-13); **[11, 13]**.
- Ned Comer, husband of/and Brenda Comer et al. v. Murphy Oil et al., 2007, S.D. Miss., Order granting Defendants' motion to dismiss (S. 1) [nicht abgedruckt].
- Ned Comer, husband of/and Brenda Comer et al. v. Murphy Oil et al., 2009, 5th Cir., Opinion by Judge Dennis, Concurrence by Judge Davis (S. 5-7, 9-12, 18, 20, 22, 23, 26, 28-30, 33, 34); **[9, 10, 18, 22, 28, 29]**.

Die hier aufgeführten Dokumente, insbesondere die Klageschriften, sind aufgrund ihres Umfangs nur in Auszügen abgedruckt. Welche Seiten abgedruckt sind, lässt sich den **eckigen Klammern** entnehmen. Die vollständigen Dokumente sind in der *Climate Change Litigation Database* der Columbia University verfügbar.

result of the increased storm damage is a massive erosion problem. Houses and buildings are in imminent danger of falling into the sea as the village is battered by storms and its ground crumbles from underneath it. *See* photograph of Kivalina attached as Exh. C. Critical infrastructure is imminently threatened with permanent destruction. If the entire village is not relocated soon, the village will be destroyed.

5. Each of the defendants knew or should have known of the impacts of their emissions on global warming and on particularly vulnerable communities such as coastal Alaskan villages. Despite this knowledge, defendants continued their substantial contributions to global warming. Additionally, some of the defendants, as described below, conspired to create a false scientific debate about global warming in order to deceive the public. Further, each defendant has failed promptly and adequately to mitigate the impact of these emissions, placing immediate profit above the need to protect against the harms from global warming.

6. Kivalina seeks monetary damages for defendants' past and ongoing contributions to global warming, a public nuisance, and damages caused by certain defendants' acts in furthering a conspiracy to suppress the awareness of the link between these emissions and global warming.

II. JURISDICTION AND VENUE

A. Subject Matter Jurisdiction

7. Subject matter jurisdiction is proper in this Court pursuant to 28 U.S.C. § 1331 because Kivalina asserts a claim against all defendants under federal common law.

8. Subject matter over the state law claims is proper in this court pursuant to 28 U.S.C. § 1367(a) because such claims are so related to claims in this action within the Court's original jurisdiction that they form part of the same case or controversy under Article III of the United States Constitution.

B. Personal Jurisdiction

9. This Court's exercise of general jurisdiction is appropriate as to each of the defendants because defendants reside in California or have substantial or continuous and

131. Mountain glaciers and snow cover have shrunk in the Arctic and other regions as a result of anthropogenic global warming. Widespread mass loss of glaciers and ice caps have contributed to sea level rise.

132. Despite the attempts by certain defendants to make the cause of climate change controversial in the popular media, there has been for many years an overwhelming scientific consensus that human activity that releases greenhouse gases is causing a change in the Earth's climate.

133. There is also a clear scientific consensus that global warming is caused by emissions of greenhouse gases, primarily carbon dioxide from fossil fuel combustion and methane releases from fossil fuel harvesting.

134. The science of global warming is not new. The heating of the planet from emissions of carbon dioxide and other greenhouse gases has long been forecast.

135. The Swedish chemist Svante Arrhenius made calculations in 1896 projecting that a global average temperature increase of 9-11 degrees Fahrenheit would result from a doubling of carbon dioxide levels over the pre-industrial concentration.

136. In 1956 scientist Gilbert Plass published a paper in American Scientist stating that global warming could be "a serious problem to future generations."

137. In 1957 a scientific paper was published stating that global warming "may become significant during future decades if industrial fuel combustion continues to rise exponentially" and that "[h]uman beings are now carrying out a large scale geophysical experiment of a kind that could not have happened in the past nor be reproduced in the future."

138. Scientists Bert Bolin and Erik Eriksson authored a book chapter in 1959 showing that the oceans re-emit much of the additional carbon dioxide from fossil fuel combustion that they absorb and projecting that atmospheric carbon dioxide would rise by approximately 25 percent by the year 2000.

139. In 1960 scientist Charles D. Keeling published results establishing that atmospheric carbon dioxide concentrations were in fact rising in the atmosphere.

must dismiss the action." Fed.R.Civ.P 12(h)(3). The instant motions present a facial challenge only.

III. DISCUSSION

A. THE POLITICAL QUESTION DOCTRINE

Federal courts are courts of limited jurisdiction. The power to hear a particular case is circumscribed by Article III of the Constitution, which extends federal judicial power only to actual "Cases" and "Controversies." U.S. Const., art. III, § 2, cl. 1. The Supreme Court "has recognized that the case-or-controversy limitation is crucial in maintaining the 'tripartite allocation of power' set forth in the Constitution." DaimlerChrysler Corp. v. Cuno, 547 U.S. 332, 341 (2006) (internal quotations omitted). Article III standing is thus a threshold requirement for federal court jurisdiction. Lujan v. Defenders of Wildlife, 504 U.S. 555, 559-60 (1992).

"The Supreme Court has indicated that disputes involving political questions lie outside of the Article III jurisdiction of federal courts." Corrie v. Caterpillar, Inc., 503 F.3d 974, 980 (9th Cir. 2007) (citing cases); Summers v. Earth Island Inst., --- U.S. ---, 129 S.Ct. 1142, 1148 (2009) ("courts have no charter to review and revise legislative and executive action"); Vieth v. Jubelirer, 541 U.S. 267, 277 (2004) ("the judicial department has no business entertaining the claim … because the question is entrusted to one of the political branches or involves no judicially enforceable rights."); see also United States v. Mandel, 914 F.2d 1215, 1222 (9th Cir. 1990) ("certain political questions are by their nature committed to the political branches to the exclusion of the judiciary.").

The political question doctrine is a species of the separation of powers doctrine and provides that certain questions are political as opposed to legal, and thus, must be resolved by the political branches rather than by the judiciary. Corrie, 503 F.3d at 980. "The political question doctrine serves to prevent the federal courts from intruding unduly on certain policy choices and value judgments that are constitutionally committed to Congress or the executive branch." Koohi v. United States, 976 F.2d 1328, 1331 (9th Cir. 1992). "A nonjusticiable political question exists when, to resolve a dispute, the court must make a policy judgment of a

legislative nature, rather than resolving the dispute through legal and factual analysis." E.E.O.C. v. Peabody Western Coal Co., 400 F.3d 774, 785 (9th Cir. 2005).

In Baker v. Carr, 369 U.S. 186, 210 (1962), the Supreme Court set forth six independent factors, any one of which demonstrates the presence of a non-justiciable political question:

> [1] a textually demonstrable constitutional commitment of the issue to a coordinate political department; or [2] a lack of judicially discoverable and manageable standards for resolving it; or [3] the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or [4] the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or [5] an unusual need for unquestioning adherence to a political decision already made; or [6] the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

"'[T]he first three Baker factors focus on the constitutional limitations of a court's jurisdiction, while the final three are 'prudential considerations [that] counsel against judicial intervention.'" Corrie, 574 F.3d at 981 (quoting Wang v. Masaitis, 416 F.3d 992, 996 (9th Cir. 2005)).

The six Baker factors have been grouped into three general inquiries: "(i) Does the issue involve resolution of questions committed by the text of the Constitution to a coordinate branch of Government? (ii) Would resolution of the question demand that a court move beyond areas of judicial expertise? (iii) Do prudential considerations counsel against judicial intervention?" Wang, 416 F.3d at 995 (citing Goldwater v. Carter, 444 U.S. 996, 997 (1979) (Powell, J., concurring)). Under this distilled approach, the first inquiry covers Baker factor one; the second inquiry covers Baker factors two and three; and the third covers Baker factor four through six. Id. at 995-996. Any one of the Baker factors may be dispositive. Alperin v. Vatican Bank, 410 F.3d 532, 547 (9th Cir. 2005); United States v. Mandel, 914 F.2d 1215, 1222 (9th Cir. 1990).

1. Textual Commitment

The first Baker factor examines whether there is "a textually demonstrable constitutional commitment of the issue to a coordinate political department." Baker, 369 U.S. at 217. "This factor recognizes that, under the separation of powers, certain decisions have

emission of greenhouse gases from innumerable sources located throughout the world and *affecting the entire planet and its atmosphere*. Pls.' Opp'n at 105. Notably, Plaintiffs acknowledge that the global warming process involves "common pollutants that are mixed together in the atmosphere [that] cannot be similarly geographically circumscribed." Id.

The sequence of events leading to the claimed injury also is distinguishable. In a water pollution case, the discharge in excess of the amount permitted is presumed harmful. See Tex. Indep. Producers and Royalty Owners Ass'n v. E.P.A., 410 F.3d 964, 974 (5th Cir. 2005) (Texas Indep. Producers). In contrast, the harm from global warming involves a series of events disconnected from the discharge itself. In a global warming scenario, emitted greenhouse gases combine with other gases in the atmosphere which *in turn* results in the planet retaining heat, which *in turn* causes the ice caps to melt and the oceans to rise, which *in turn* causes the Arctic sea ice to melt, which *in turn* allegedly renders Kivalina vulnerable to erosion and deterioration resulting from winter storms. See Compl. ¶¶ 1, 4, 123-127, 254; Pls.' Opp'n at 105.

Despite the admitted and significant distinctions between a nuisance claim based on water or air pollution and one, such as the present, based on global warming, neither Plaintiffs nor AEP offers any guidance as to precisely what judicially discoverable and manageable standards are to be employed in resolving the claims at issue. Although federal courts undoubtedly are well suited to resolve new and complex issues and cases, the Court is not persuaded that this is such a case. Plaintiffs' global warming nuisance claim seeks to impose liability and damages on a scale unlike any prior environmental pollution case cited by Plaintiffs. Those cases do not provide guidance that would enable the Court to reach a resolution of this case in any "reasoned" manner. See Alperin, 410 F.3d at 552. Consequently, the Court concludes that application of the second Baker factor precludes judicial consideration of Plaintiff's federal nuisance claim.

b) Initial Policy Determination

Equally problematic for Plaintiffs is the third Baker factor, which requires the Court to determine whether it would be impossible for the judiciary to decide the case "without an

responsible on some level for contributing to such emissions.[4] Yet, by pressing this lawsuit, Plaintiffs are in effect asking this Court to make a political judgment that the two dozen Defendants named in this action should be the only ones to bear the cost of contributing to global warming. Plaintiffs respond that Defendants *should be* the ones held responsible for damaging Kivalina allegedly because "they are responsible for more of the problem than anyone else in the nation…." Pls.' Opp'n at 68. But even if that were true, Plaintiffs ignore that the allocation of fault—and cost—of global warming is a matter appropriately left for determination by the executive or legislative branch in the first instance. The Court thus concludes that the third Baker factor also militates in favor of dismissal.[5]

B. ARTICLE III STANDING

Article III standing is a threshold requirement for federal court jurisdiction. Lujan v. Defenders of Wildlife, 504 U.S. 555, 559-60 (1992). Under Article III of the Constitution, federal judicial power extends only to "Cases" and "Controversies." U.S. Const., art. III, § 2, cl. 1. "[I]n order to have Article III standing, a plaintiff must adequately establish: (1) *an injury in fact* (i.e., a concrete and particularized invasion of a legally protected interest); (2) *causation* (i.e., a fairly traceable connection between the alleged injury in fact and the alleged conduct of the defendant); and (3) *redressability* (i.e., it is likely and not merely speculative that the plaintiff's injury will be remedied by the relief plaintiff seeks in bringing suit)." Sprint Commc'n Co., L.P. v. APCC Servs., Inc., --- U.S. ---, 128 S.Ct. 2531, 2535 (2008) (citing Lujan, 504 U.S. at 560-561) (internal quotations and alterations omitted); Stormans, Inc. v. Selecky, 571 F.3d 960, 970 (9th Cir. 2009). The party invoking federal jurisdiction bears the

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[4] To the extent that the combustion of fossil fuels is causing global warming, it is evident that any person, entity or industry which uses or consumes such fuels bears at least some responsibility for Plaintiffs' harm. Plaintiffs readily acknowledge that the "transportation sector" is responsible for an "enormous quantity" of greenhouse gas emissions. Pls.' Opp'n at 98. Nonetheless, Plaintiffs have chosen not to include any members of the transportation sector in this lawsuit. The seemingly arbitrary selection of Defendants, coupled with the gravity and extent of the harm alleged in this case, underscores the conclusion that the allocation of responsibility for global warming is best left to the executive or legislative branch.

[5] Given the Court's conclusions regarding the second and third Baker factors, the Court does not reach the parties arguments regarding the remaining Baker factors which, in any event, largely mirror the argument analyzed above.

thereby effectively eliminating the issue of geographic proximity in any case involving harms caused by global warming.

The tenuousness of Plaintiffs' standing is further exemplified by their theory of causation. Unlike water pollution cases in which the discharges of effluent in excess of the permitted amount are deemed harmful, Plaintiffs' arguments depend on an attenuated sequence of events that purportedly follow from the Defendants' alleged "excessive" discharge of greenhouse gases. Id. ¶ 4, 123-125, 127, 130, 131. As succinctly stated by the Supreme Court in Allen v. Wright, "The links in the chain of causation between the challenged … conduct and the asserted injury are far too weak for the chain as a whole to sustain [Plaintiffs'] standing." 468 U.S. 737, 759 (1984). That observation is especially apropos in the instant case where the Plaintiffs' claim for damages is dependent on a series of events far removed both in space and time from the Defendants' alleged discharge of greenhouse gases. See Center for Biological Diversity v. U.S. Dept. of Interior, 563 F.3d 466, 478 (D.C. Cir. 2009) (causal link between government approval of offshore leases for gas and oil development and climate change was "too tenuous" to demonstrate standing); c.f., Benefiel v. Exxon Corp., 959 F.2d 805, 807 (9th Cir. 1992) (holding that the aftereffects of a massive oil spill were too remote to establish causation for increased gasoline prices).

C. SPECIAL SOLITUDE

Finally, Plaintiffs contend that they are entitled to relaxed standing requirements based upon the "special solitude" generally afforded to sovereigns. Pls.' Opp'n at 106-109. This argument derives from Massachusetts v. EPA, 549 U.S. 497 (2007), a case where the State of Massachusetts along with private environmental organizations filed a rulemaking petition requesting the EPA to regulate carbon dioxide emissions from new motor vehicles. Id. at 518. In finding that plaintiffs had standing, the Supreme Court acknowledged "the special position and interest of Massachusetts" and noted that it "is of considerable relevance that the party seeking review here is a sovereign State and not … a private individual." Id. at 518. The Court explained that "[w]hen a State enters the Union, it surrenders certain sovereign prerogatives," such as those relating to "exercise of its police powers to reduce in-state motor-

of action. Judicial power can afford no remedy unless a right that is subject to that power is present. If a federal common law cause of action has been extinguished by Congressional displacement, it would be incongruous to allow it to be revived in another form.

The fact that the damage occurred before the EPA acted to establish greenhouse gas standards does not alter the analysis. The doctrine of displacement is an issue of separation of powers between the judicial and legislative branches, not the judicial and executive branches. *Michigan*, 667 F.3d at 777. When the Supreme Court concluded that Congress had acted to empower the EPA to regulate greenhouse gas emissions, *Massachusetts v. EPA*, 549 U.S. 497, 528-29 (2007), it was a determination that Congress had "spoken directly" to the issue by legislation. Congressional action, not executive action, is the touchstone of displacement analysis. *See AEP*, 131 S. Ct. at 2537.

Nor does the Supreme Court's displacement determination pose retroactivity problems. The Supreme Court confronted this theory in the *Milwaukee* cases, holding in *Milwaukee II* that amendments to the Clean Water Act, passed after the decision in *Milwaukee I*, displaced the previously recognized common law nuisance claim because Congress had now "occupied the field through the establishment of a comprehensive regulatory program supervised by an expert administrative agency." *Milwaukee* II, 451 U.S. at 316. "[W]hen Congress addresses a question previously governed by a decision rested on federal common law the need for such an unusual exercise of lawmaking by federal courts disappears." *Id.* at 314. Kivalina concedes that its civil conspiracy claim is dependent upon the success of the substantive claim, so it falls as well.

III

[8] In sum, the Supreme Court has held that federal common law addressing domestic greenhouse gas emissions has

been displaced by Congressional action. That determination displaces federal common law public nuisance actions seeking damages, as well as those actions seeking injunctive relief. The civil conspiracy claim falls with the substantive claim. Therefore, we affirm the judgment of the district court. We need not, and do not, reach any other issue urged by the parties.

Our conclusion obviously does not aid Kivalina, which itself is being displaced by the rising sea. But the solution to Kivalina's dire circumstance must rest in the hands of the legislative and executive branches of our government, not the federal common law.

AFFIRMED.

PRO, District Judge, concurring:

The Native Village of Kivalina and the City of Kivalina (together "Kivalina") appeal the district court's dismissal of their federal common law public nuisance claim for damages against Appellees, who are oil, energy, and utility companies. In support of their federal common law nuisance claim, Kivalina alleges Appellees emit massive amounts of greenhouse gases that contribute to global warming which, in turn, has severely eroded the land where the City of Kivalina sits and threatens it with imminent destruction. Kivalina also brought conspiracy and concert of action claims which are dependent on their federal common law nuisance claim. Additionally, Kivalina brought a state law nuisance claim in the alternative to their federal common law claim. The district court dismissed the state law nuisance claim without prejudice to refiling in state court, and no one appeals that decision. Consequently, the question before us is whether Kivalina states a viable federal common law public nuisance claim for damages.

compensatory damages. Another explanation may be that the *Exxon* Court viewed § 1321 as not so comprehensive as to displace federal maritime common law negligence claims for damages, unlike the CWA provisions the *Milwaukee II* Court found displaced federal common law nuisance claims.

Regardless of *Exxon*'s effect on the viability of federal maritime common law negligence claims for damages under § 1321, *Milwaukee II*, *Middlesex*, *AEP*, and the comprehensive nature of the CAA lead to the conclusion that Kivalina's federal common law nuisance claim for damages in this case is displaced. Congress has spoken directly to the question of what remedies are available under federal law for air pollution. The CAA sets forth a comprehensive regulatory scheme committed to an expert agency, coupled with a variety of enforcement mechanisms, including enforcement by States, the EPA, and private parties. Consequently, the lack of a federal damages remedy is not indicative of a gap which federal common law must fill. Congress could have included a federal damages cause of action in the CAA, and it may add one at any time, but thus far it has opted not to do so. By supplying a federal remedy Congress chose not to provide, this Court would not be "filling a gap," it would be "providing a different regulatory scheme" than the one chosen by Congress. *Milwaukee II*, 451 U.S. at 324 n.18.

Displacement of the federal common law does not leave those injured by air pollution without a remedy. Once federal common law is displaced, state nuisance law becomes an available option to the extent it is not preempted by federal law. *AEP*, 131 S. Ct. at 2540 ("In light of our holding that the Clean Air Act displaces federal common law, the availability *vel non* of a state lawsuit depends, *inter alia*, on the preemptive effect of the federal Act."). The district court below dismissed Kivalina's state law nuisance claim without prejudice to refiling it in state court, and Kivalina may pursue whatever remedies it may have under state law to the extent their claims are not preempted.

anticipated impacts, including reduced snow pack, coastal and beach erosion, increased ozone pollution, sea water intrusion into Sacramento Bay-Delta drinking water supplies, and to respond to impacts on wildlife, including endangered species and fish, wildfire risks, and the long-term need to monitor on-going and inevitable impacts. California already has begun to expend money and other resources to address the declining snow pack and earlier melting of the snow pack in order to avert future water shortages and flooding.

5. Damages caused by global warming are cognizable, ongoing, and increasing. Defendants are aware of the impacts and have chosen to continue to produce products that generate enormous quantities of carbon dioxide, to the detriment of California.

6. The People seek compensation for the large-scale damage caused by these defendants. California seeks a judgment holding each defendant jointly and severally liable for contributing to a public nuisance – global warming and the impacts resulting from global warming in California – and awarding monetary damages to the State. The People also seek a declaratory judgment that each defendant is jointly and severally liable to pay for such additional damages incurred by California in the future for contributing to the ongoing nuisance of global warming.

JURISDICTION AND VENUE

7. This Court has jurisdiction pursuant to 28 U.S.C. § 1331 (action arising under the laws of the United States).

8. The Court has jurisdiction over state law claims pursuant to 28 U.S.C. § 1367.

9. The People have standing to pursue this action in their quasi-sovereign, proprietary, and parens patriae capacities. Global warming is adversely affecting the environment and the natural resources of the State that are held in trust for the benefit of the People; adversely affecting and causing a diminution in value of State-owned property, including, but not limited to, State parks, State beaches, State forests, and State-owned and/or operated facilities such as water storage and delivery systems; and adversely affecting California's public health and welfare.

10. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(b)(1) because all defendants reside in this judicial district as that term is defined in 28 U.S.C. § 1391(c) and other

the expenditure of millions of dollars by the State, and will require expenditure of billions of dollars to ensure that sea level rise does not destroy the levee system.

55. Global warming is also having severe impacts on the health and well-being of California's residents, and, in turn, on the State's health system. Global warming increases the frequency, duration, and intensity of extreme heat events, conditions that are favorable to the formation of smog. And as temperatures rise, and the number of days of extreme heat events increases, the risk of injury or death caused by dehydration, heatstroke, heart attack, and respiratory problems also increases. Most vulnerable are the elderly, those whose health is already compromised such as children with asthma, and those who do not have the means to purchase and operate air conditioners or to evacuate to air conditioned locations.

56. Dozens of other impacts have begun or are anticipated with a high level of certainty, including increased risk and intensity of wildfires, risk of prolonged heat waves, loss of moisture due to earlier snow pack melt and related impacts on forests and other ecosystems, and a change in ocean ecology as water warms. All of these impacts are the subject of State study and planning, which costs the State millions of dollars.

FIRST CAUSE OF ACTION

(Public Nuisance – Federal Common Law)

57. Plaintiff hereby realleges and incorporates each and every paragraph above.

58. Defendants have engaged in and are engaging in activities that have caused and continue to cause injury to the State of California. Defendants, by their emissions of carbon dioxide and other greenhouse gases from the combustion of fossil fuels in passenger vehicles and trucks, have knowingly created or contributed to and are knowingly creating or contributing to a public nuisance – global warming – injurious to the State of California, its citizens and residents.

59. Defendants' emission of carbon dioxide and other greenhouse gases, by contributing to global warming, constitutes a substantial and unreasonable interference with public rights in California's jurisdiction, including, among other things, public comfort and safety, natural resources and public property, and aesthetic and ecological values.

901 F.2d 696, 699 (9th Cir. 1988); *Robertson v. Dean Witter Reynolds, Inc.*, 749 F.2d 530, 534 (9th Cir. 1984). In pleading sufficient facts, however, a plaintiff must suggest his or her right to relief is more than merely conceivable, but plausible on its face. *See Bell Atlantic Corp. v. Twombly*, 127 S.Ct. 1955, 1974 (2007).

ANALYSIS

I. Chronology of Relevant Environmental Policy

A chronology of the relevant environmental policy on global warming is helpful in setting the stage for the issues now before the Court. Congress and the Executive Branch have taken several actions to understand and address the complex issue of global warming. *Connecticut v. American Elec. Power Co.*, 406 F. Supp. 2d 265, 269 (S.D.N.Y. 2005) ("*AEP*").

In 1978, Congress established a "national climate program" to improve understanding of global climate change through research, data collection, assessments, information dissemination, and international cooperation. *See* National Climate Program Act of 1978, 15 U.S.C. §§ 2901, *et seq*. Two years later, Congress directed the Office of Science and Technology Policy to engage the National Academy of Sciences in a study of the "projected impact, on the level of carbon dioxide in the atmosphere, of fossil fuel combustion, coal-conversion and related synthetic fuels activities" authorized by the Energy Security Act. *See* Energy Security Act, Pub. L. No. 96-294, tit. VII, § 711, 94 Stat. 611, 774-75 (1980).

Congress next addressed the issue in 1987, when it enacted the Global Climate Protection Act, Title XI of Pub.L. 100-204, 101 Stat. 1407, note following 15 U.S.C. § 2901. Finding that "manmade pollution – the release of carbon dioxide, chlorofluorocarbons, methane, and other trace gases into the atmosphere – may be producing a long-term and substantial increase in the average temperature on Earth," § 1102(1), 101 Stat. 1408, Congress directed EPA to propose to Congress a "coordinated national policy on global climate change," § 1103(b), and ordered the Secretary of State to work "through the channels of multilateral diplomacy" and coordinate diplomatic efforts to combat global warming, § 1103(c). Congress emphasized that "ongoing pollution and deforestation may be contributing now to an irreversible process" and that "[n]ecessary actions must be identified and implemented in time to protect the climate." § 1102(4).

As the Supreme Court has recognized, to resolve typical air pollution cases, courts must strike a balance "between interests seeking strict schemes to reduce pollution rapidly to eliminate its social costs and interests advancing the economic concern that strict schemes [will] retard industrial development with attendant social costs." *AEP*, 406 F. Supp. 2d at 272 (citing *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 847 (1984)). Balancing those interests, together with the other interests involved, is impossible without an "initial policy determination" first having been made by the elected branches to which our system commits such policy decisions, namely, Congress and the President. *Id*. Courts have recognized the complexity of the "initial policy determinations" that must be made by the elected branches before a non-elected court can properly adjudicate a global warming nuisance claim. *Id*. at 273.

In *AEP*, the court rejected a similar global warming nuisance claim finding that resolution of the issues required "an initial policy determination of a kind clearly for non-judicial discretion." *AEP*, 406 F. Supp. 2d at 274. There, the Attorneys General of California and other States brought a global warming public nuisance claim against certain electric utilities seeking abatement. *Id*. at 267, 270. In particular, the plaintiffs sought an order: (1) holding each of the defendants jointly and severally liable for contributing to an ongoing public nuisance, global warming; and (2) enjoining each of the defendants to abate its contribution to the nuisance be capping its emission of carbon dioxide and then reducing those emissions by a specified percentage each year for at least a decade. *Id*. at 270. After outlining the historical legislative and executive efforts to address global warming, the court stated, "[t]he explicit statements of Congress and the Executive on the issue of global climate change in general and their specific refusal to impose the limits on carbon dioxide emissions Plaintiffs now seek to impose by judicial fiat confirm that making the 'initial policy determination[s]' addressing global climate change is an undertaking for the political branches." *Id*. at 274.

Also in *AEP*, the court noted that the EPA's commentary on global warming was compelling support for the notion that the elected branches must make an initial policy determination on global warming before the courts can properly adjudicate such a claim. *See id*. at 273. The EPA, the agency in which "Congress has vested administrative authority" over the "technically complex area

reducing global warming emissions and the interests of advancing and preserving economic and industrial development. *AEP*, 406 F. Supp. 2d at 272. The balancing of those competing interests is the type of initial policy determination to be made by the political branches, and not this Court.

The political branches' actions and deliberate inactions in the area of global warming further highlight this case as one for nonjudicial discretion. An examination of the political branches' consideration of the issues surrounding global climate change counsels against an initial policy determination to be made by the courts. As early as 1978, and as recent as the current administration, the elected branches of government have addressed the issues of climate change and global warming. As the above-referenced chronological policy summary demonstrates, reductions in carbon dioxide emissions is an issue still under active consideration by those branches of government.

Turning to the current legislative landscape, it is evident that Congress established a comprehensive state and federal scheme to control air pollution in the United States in the Clean Air Act, 42 U.S.C. § 7401 *et seq*. ("CAA"). *National Audubon Society v. Dept. of Water*, 869 F.2d 1196, 1201 (9th Cir. 1988). The central elements of this comprehensive scheme are the Act's provisions for uniform national standards of performance for new stationary sources of air pollution. 42 U.S.C. § 7411. The Act's provisions provide for uniform national emission standards for hazardous air pollutants likely to cause an increase in mortality or serious illness, § 7412, for promulgation of primary and secondary national ambient air quality standards (NAAQS), §§ 7408-09, and for the development of national ambient air quality standards for motor vehicle emissions. § 7521; *National Audubon Society*, 869 F.2d at 1202.[5]

Once the EPA determines that a particular pollutant has an adverse effect on public health or welfare and originates from one or more numerous or diverse mobile or stationary sources, the EPA

[5]Two sections of the CAA govern the establishment and revision of the national ambient air quality standards. Section 108 directs the Administrator of the EPA to identify pollutants which may reasonably be anticipated to endanger public health or welfare and to issue air quality criteria for them. 42 U.S.C. § 7408. Section 109 directs the Administrators to propose and promulgate "primary" and "secondary" NAAQS for pollutants identified under Section 108. 42 U.S.C. § 7409. The Act defines a primary standard as one the attainment and maintenance of which, in the judgment of the Administrator, based on specific criteria and allowing for an adequate margin of safety, is requisite to protect the public health. 42 U.S.C. §7409. A secondary standard must specify a level of air quality, the attainment of which, in the judgment of the Administrator, based on specific criteria and allowing for an adequate margin of safety, is requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of the pollutant in the ambient air. *Id.*

feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy. 49 U.S.C. § 32902(f). After considering and balancing the statutory factors, NHTSA determines the "maximum feasible" level of fuel economy that can be imposed through regulation without suffering the attendant consequences Congress sought to avoid. 49 U.S.C. § 32902(f).

By themselves, the CAA and EPCA do not directly address the issue of global warming and carbon dioxide emission standards. However, when read in conjunction with the prevalence of international and national debate, and the resulting policy actions and inactions, the Court finds that injecting itself into the global warming thicket at this juncture would require an initial policy determination of the type reserved for the political branches of government. A judicial determination of monetary damages for Plaintiff's global warming nuisance tort would improperly place this Court into precisely the geopolitical debate more properly assigned to the coordinate branches and would potentially undermine the political branches' strategic choices by "weaken[ing] U.S. efforts to persuade key developing countries to reduce the [greenhouse gas] intensity of their economies." 68 Fed. Reg. at 52927, 52931. Plaintiff has failed to provide the Court with sufficient explanation or legal support as to how this Court could impose damages against the Defendant automakers without unreasonably encroaching into the global warming issues currently under consideration by the political branches. Because a comprehensive global warming solution must be achieved by a broad array of domestic and international measures that are yet undefined, it would be premature and inappropriate for this Court to wade into this type of policy-making determination before the elected branches have done so.

A recent Supreme Court opinion further underscores the conclusion that policy decisions concerning the authority and standards for carbon dioxide emissions lie with the political branches of government, and not with the courts. *See Massachusetts v. Environmental Protection Agency*, 127 S. Ct. 1438 (2007). In *Massachusetts*, a group of private environmental organizations filed a rulemaking petition requesting the EPA to regulate carbon dioxide emissions from new motor vehicles. *Id*. at 1446. The EPA denied the petition, explaining: (1) that it lacked authority under the

Auszug aus Chevron v. NRDC (1984), auf den California v. General Motors und Comer v. Murphy Oil Bezug nehmen:

The 1970 legislation provided for the attainment of primary NAAQS's by 1975. In many areas of the country, particularly the most industrialized States, the statutory goals were not attained. In 1976, the 94th Congress was confronted with this fundamental problem, as well as many others respecting pollution control. As always in this area, the legislative struggle was basically **between interests seeking strict schemes to reduce pollution rapidly to eliminate its social costs and interests advancing the economic concern that strict schemes would retard industrial development with attendant social costs**. The 94th Congress, confronting these competing interests, was unable to agree on what response was in the public interest: legislative proposals to deal with nonattainment failed to command the necessary consensus.

The aforesaid defendants, sued individually and on behalf of a class of Oil and Refining companies similarly situated (sometimes referred to herein as the "Oil Company Defendant Class"), are liable unto plaintiffs and the class of plaintiffs described herein (sometimes referred to herein as the "Plaintiff Class") for the following reasons, to-wit:

30.

Hurricane Katrina evolved into a storm of unprecedented strength and destruction, fed and developed by the warm waters and warm environmental conditions present in the Gulf of Mexico.

31.

The environmental conditions present in the Gulf of Mexico which fostered the strengthening of Hurricane Katrina are the direct result of a condition sometimes described as "Global Warming" which has been manifested by a marked increase in global air and water temperatures, melting of the polar ice caps, and significant increases in the frequency and intensity of storms known as hurricanes including a doubling of the number of category 4 and 5 hurricanes in recent years.

32.

"Global Warming" is caused by a depletion of protective ozone and a build-up of greenhouse gases including, but not limited to, carbon dioxide all of which is a by-product of the oil refining and production activities of the Oil Company Defendant Class.

33.

The Oil Company Defendant Class has engaged in activities that have produced the greatest single source of by-products leading to the development and increase of global warming. Despite warning from scientists and other knowledgeable advocates about the adverse effects of their activities on the environment in general and global warming in particular, the members of

causing extensive death and destruction. As a result thereof, the Plaintiff Class has sustained the following non-exclusive damages:

a) Loss of property;

b) Loss of the use of their property;

c) Loss of their business and/or income;

d) Incurred clean-up expenses, past, present and future;

e) Disruption of the normal course of their lives;

f) Loss of loved ones;

g) Mental anguish and emotional distress; and

h) Such other elements of damage as may be shown at the trial of the merits herein.

37.

In addition to all other relief sought against the Oil Company Defendant Class herein, the Plaintiff Class seeks and is entitled to receive punitive damages from the Oil Company Defendant Class for their conduct which conduct amounts to gross negligence on the part of the Oil Company Defendant Class.

38.

The Plaintiff Class further seeks to have this matter certified and maintained as a class action both as to a class of plaintiffs who are residents of and/or property owners in the State of Mississippi who suffered loss and harm as a result of Hurricane Katrina and as to a class of defendants who contributed to the rise in Global Warming as a result of their oil exploration, development, refining and production activities.

first and third prongs of the tripartite test.

Defendants instead challenge the plaintiffs' standing at the second prong of the federal standing inquiry. They argue that the plaintiffs have not shown that the harms alleged are fairly traceable to defendants' actions. Defendants contend that the plaintiffs' theory tracing their injuries to defendants' actions is too attenuated. However, this argument, which essentially calls upon us to evaluate the merits of plaintiffs' causes of action, is misplaced at this threshold standing stage of the litigation. It is firmly established "that the absence of a valid (as opposed to arguable) cause of action does not implicate subject-matter jurisdiction, *i.e.*, the courts' statutory or constitutional power to adjudicate the case." *Steel Co.*, 523 U.S. at 89 (citing generally 5A Wright & Miller, *Federal Practice and Procedure* § 1350 n.8 and cases cited (2d ed. 1990)). As the Supreme Court stated in *Bell v. Hood*, 327 U.S. 678, 685 (1946), "[j]urisdiction . . . is not defeated . . . by the possibility that the averments might fail to state a cause of action on which petitioners could actually recover." More specifically, for issues of causation, the Article III traceability requirement "need not be as close as the proximate causation needed to succeed on the merits of a tort claim. Rather, an indirect causal relationship will suffice, so long as there is 'a fairly traceable connection between the alleged injury in fact and the alleged conduct of the defendant.'" *Toll Bros., Inc. v. Township of Readington,* 555 F.3d 131, 142 (3d Cir. 2009); *see also Bennett v. Spear,* 520 U.S. 154, 168 (1997) ("[P]roximate cause" of ["plaintiffs'] harm" is not equivalent with their "injury 'fairly traceable' to the defendant" for standing purposes); *Friends for Ferrell Parkway, LLC v. Stasko,* 282 F.3d 315, 324 (4th Cir. 2002) ("[T]he 'fairly traceable' standard is 'not equivalent to a requirement of tort causation.'"); *Tozzi v. U.S. Dep't of Health*

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policy).

and Human Servs.,271 F.3d 301, 308 (D.C. Cir. 2001) ("[W]e have never applied a 'tort' standard of causation to the question of traceability.").

Plaintiffs' complaint, relying on scientific reports, alleges a chain of causation between defendants' substantial emissions and plaintiffs' injuries, and while plaintiffs will be required to support these assertions at later stages in the litigation, at this pleading stage we must take these allegations as true. *Cf. Bennett*, 520 U.S. at 154 (accepting plaintiffs' pleadings as true and holding that the alleged injury, loss of water for irrigation, was fairly traceable to a Fish and Wildlife Service biological opinion recommending that water in lakes be maintained at a minimum level to protect endangered fish); *Metro. Wash. Airport Auth.*, 501 U.S. at 264-65 (accepting plaintiffs' pleadings as true and holding, in an action challenging the constitutionality of the airport authority's veto power over increased airport construction, that allegations that the construction plan would result in increased airport noise, pollution, and danger of accidents constituted a personal injury to plaintiffs that was fairly traceable to the review board's veto power).

What is more, the defendants' main contentions are similar to those recently rejected by the Supreme Court in *Massachusetts v. EPA*. Essentially, they argue that traceability is lacking because: (1) the causal link between emissions, sea level rise, and Hurricane Katrina is too attenuated, and (2) the defendants' actions are only one of many contributions to greenhouse gas emissions, thereby foreclosing traceability.

In holding that Massachusetts had standing to challenge the EPA's decision not to regulate the emission of greenhouse gasses, *see Massachusetts*, 549 U.S. at 522-23, the Court accepted as plausible the link between man-made greenhouse gas emissions and global warming, *id.* at 523 (noting the "causal connection between man-made greenhouse gas emissions and global warming" in finding that "EPA does not dispute the existence of a causal connection

To begin with, it is useful to define the terms "justiciability" and "political question." A question, issue, case or controversy is "justiciable" when it is constitutionally capable of being decided by a federal court. Conversely, a question, etc., is "nonjusticiable" when it is not constitutionally capable of being judicially decided. Under the separation of powers of the Constitution and the Supreme Court's cases, a question or subject matter that is committed by the Constitution, or by constitutional federal laws or regulations, exclusively to Congress or the president is not capable of being decided by a federal court. Thus, whether a question is constitutionally capable of being decided by a federal court depends ultimately on the separation of powers, other applicable constitutional provisions, and federal laws or regulations, not upon federal judges' capability, intellect, knowledge, expertise or training, nor upon the inherent difficulty, complexity, novelty or esotery of the matter to be resolved.

A "nonjusticiable" question is also known as a "political question," denoting that it has been constitutionally entrusted exclusively to either or both the executive or the legislative branch, which are called the "political" or "elected" branches. Correspondingly, the federal judiciary, whose members are appointed, is known as the "unelected" or "non-majoritarian" branch. Thus, in this context, "political" does not broadly relate to government, government policy, partisan or party politics, or the political system. A case or question that is "political" only in the broad sense, i.e., that it has political implications or ramifications, is capable of being decided constitutionally by a federal court, so long as the question has not been committed by constitutional means exclusively to the elected or political branches.

The questions posed by this case, viz., whether defendants are liable to plaintiffs in damages under Mississippi's common law torts of nuisance, trespass or negligence, are justiciable because they plainly have not been committed by the Constitution or federal laws or regulations to Congress or the president.

> particular case, and the impossibility of resolution by any semantic cataloguing.

Id. at 217.

Plainly, the *Baker v. Carr* "formulations" were not written as stand-alone definitions of a "political question." They are open-textured, interpretive guides[10] to aid federal courts in deciding whether a question is entrusted by the Constitution or federal laws exclusively to a federal political branch for its decision. The *Baker* formulations are not self-sufficient definitions, but must be used together with the Constitution and federal laws to decide whether a particular constitutional or statutory provision commits a question solely to a political branch for decision. Consequently, if a party moving to dismiss under the political question doctrine is unable to identify a constitutional provision or federal law that arguably commits a material issue in the case exclusively to a political branch, the issue is clearly justiciable and the motion should be denied without applying the *Baker* formulations.

In deciding whether a case should be dismissed as a nonjusticiable political question, we must bear in mind the principles that govern the jurisdiction of federal courts: "It is emphatically the province and duty of the judicial department to say what the law is." *Marbury v. Madison*, 5 U.S. (1 Cranch) 137, 177, 2 L.Ed. 60 (1803). "[F]ederal courts lack the authority to abstain from the exercise of jurisdiction that has been conferred." *New Orleans Public Service, Inc. v. Council of the City of New Orleans*, 491 U.S. 350, 358 (1989). In *Boumediene v. Bush*, 128 S.Ct. 2229 (2008), the Supreme Court's reasoning reflected the principle that when a decision is committed exclusively to Congress, as the suspension of habeas corpus is, federal courts must consider

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[10] *See Lane v. Halliburton*, 529 F.3d 548, 559 (5th Cir. 2008) ("Although the *Baker* formulations provide useful analytical guideposts in our analysis, '[w]hether an issue presents a nonjusticiable political question cannot be determined by a precise formula.'") (quoting *Saldano v. O'Connell*, 322 F.3d 365, 368 (5th Cir. 2003)).

Because the defendants have failed to articulate how any material issue is exclusively committed by the Constitution or federal laws to the federal political branches, the application of the *Baker* formulations is not necessary or properly useful in this case. Even if applied, the formulations do not make the defendants' argument for nonjusticiability any more persuasive. The defendants have not shown any exclusive textual commitment of the issues in this case to a federal political branch. Nor have they shown the absence of judicially discoverable or manageable standards with which to decide this case. Mississippi and other states' common law tort rules provide long-established standards for adjudicating the nuisance, trespass and negligence claims at issue. The policy determinations underlying those common law tort rules present no need for nonjudicial policy determinations to adjudicate this case.[14] Nor would the district court's adjudication of this case express or imply any lack of the respect due coordinate branches of the federal government. Even when a court finds that Congress has passed an unconstitutional law, there is no "lack of respect" for Congress's judgment. *See United States v. Munoz-Flores*, 495 U.S. 385, 390 (1990). There is no unusual need for unquestioning adherence to a federal political branch decision already made, and no potentiality of embarrassment from multifarious pronouncements by various federal departments on one question. For example, this is not a case in which, for those reasons, federal courts must completely defer to the executive's recognition of or refusal to recognize a foreign government.

B.

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[14] *See, e.g.*, George W. Pugh, *The Federal Declaratory Remedy: Justiciability, Jurisdiction and Related Problems*, 6 Vand. L. Rev. 79, 86 (1952) ("In any judicial adjudication, the court is furnished by precedent or legislation with at least the broad outlines of policy. It is quite true that the judiciary must ascertain the broad applicable policy, but it does not itself make that policy in the specific case. It finds it.").

The defendants' reliance upon the district courts' decisions in *California v. General Motors Corp.*, 2007 WL 2726871 (N.D. Cal. 2007), and *Connecticut v. American Electric Power Co.*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005)[15] is misplaced. Those decisions are legally flawed and clearly distinguishable from the present case.

First, the decisions in both *American Electric* and *General Motors* are based on a serious error of law. In each case, the district court incorrectly read the Supreme Court in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* as holding that federal courts in air pollution cases must balance social and economic interests like a legislative body. They mistook *Chevron* to state that:

> to resolve typical air pollution cases, courts must strike a balance "between interests seeking strict schemes to reduce pollution rapidly to eliminate its social costs and interests advancing the economic concern that strict schemes [will] retard industrial development with attendant social costs."

General Motors, 2007 WL 2726871 at *7 (quoting *American Electric*, 406 F. Supp. 2d at 272 (quoting *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 847 (1984))). But the Court did not so state. Instead, the *Chevron* Court, in the language quoted, was simply referring to and describing the balancing of interests in Congress's legislative process. *Chevron* does not require federal courts to imitate the legislative process.[16]

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[15] The Second Circuit Court of Appeals recently reversed the district court's decision in *American Electric*, holding that the case was justiciable. No. 05-5104-cv, 05-5119-cv (September 21, 2009). Although we arrived at our own decision independently, the Second Circuit's reasoning is fully consistent with ours, particularly in its careful analysis of whether the case requires the court to address any specific issue that is constitutionally committed to another branch of government. The reversal of *American Electric* casts additional doubt on the persuasiveness of *General Motors*, whose reasoning drew heavily from that of the district court in *American Electric*.

[16] As the Court's cases make clear, the historic and traditional function of the federal judiciary is not legislation, but adjudication of controversies between adversaries based on

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Extreme rainfall triggered floods in northeast India, Bangladesh and southern China. Some places in the south of China received their heaviest rainfall in 60 years.

JULY

All through July and August, there were simultaneous heat waves in at least 33 countries—across Asia, Africa, South America, Europe and North America—which broke temperature records and caused droughts, dried up rivers and led to widespread wildfires. Droughts have become up to six times more likely in the northern hemisphere due to global warming.

Nineteen European countries experienced heatwaves and in most of them, monthly or all-time temperature records were broken in the last two weeks of July. The most severe heatwaves were in the UK, France and Spain. Almost all the weather stations in the UK recorded highest-ever temperatures on July 18–19, with Coningsby in the eastern UK recording the country's highest temperature at 40.3°C on July 19.

There were two heatwave spells in China, from July 5 to 17 and from July 23 to the first week of August. Between July 15 and 26, temperature records were broken in as many as 71 weather stations across the country. The heatwaves and dry conditions led to a crippling drought in the country, especially in Wuhan. The Yangtze River was at its driest in 150 years.

AUGUST

According to a report by the Copernicus Climate Change Service (C3S) of the EU, the continent experienced its warmest summer and August on record.[5] While the heat was mostly in the western and southern regions in June and July, the eastern part of the continent suffered the brunt of the heat in August.

Flooding, which began in Pakistan in June, intensified in July and became catastrophic in August. As of October, it has killed 1,700 people, affected another 33 million and led to economic losses of US $30 billion. Fifty per cent of the increase in intensity of rainfall in August was attributed to global warming.

SUMMARY OF KEY FACTS AND DEFINITIONS

What is a slow-onset process?

The effects of climate change can be divided into two categories according to the temporal scale over which they occur and the differing speed of manifestation of their impacts: slow-onset processes and rapid-onset events. To date, in the climate context, no officially acknowledged definition of slow-onset processes has been established. For this paper, slow-onset processes are understood as phenomena caused or intensified by anthropogenic climate change that take place over prolonged periods of time – typically years, decades, or even centuries – without a clear start or end point (see UNFCCC 2012, UNU 2017, UNHRC 2018, IPCC 2007 and 2012). Slow-onset processes evolve through gradual transformations - creeping or incremental changes that can generate severe, cumulative and potentially irreversible impacts on ecological and human systems. Impacts take place at all levels up to the global scale. Slow-onset processes' characteristics can be well understood when compared with rapid onset events, in the climate context typically referred to as extreme weather events. Rapid-onset events are single, discrete events with a clearly identifiable beginning and/or end and that occur or reoccur in a matter of days or even hours at a local, national, or region scale (UNHCR 2018).

Which phenomena fall under the category of slow-onset processes?

This paper considers increasing mean temperatures, sea level rise, ocean acidification, glacial retreat, permafrost degradation, salinisation, land and forest degradation, and desertification, as well as loss of biodiversity, as slow-onset processes (see UNFCCC 2017, UNU 2017). The paper puts a special emphasis on the distinct slow-onset process of sea level rise, which is one of the most urgent such

resulted in the deaths of tens of thousands of people (Stott, Stone, and Allen 2004). A 2016 study of the same heat wave concluded that human-caused climate change had increased the risk of heat-related mortality during the event by about 70 percent in central Paris and about 20 percent in London (Mitchell et al. 2016).

Numerous authoritative scientific institutions and government agencies have released studies in recent years that reflect how much the science of climate attribution has developed:

- The *Bulletin of the American Meteorological Society* has dedicated a special issue each year since 2012 to assessing whether and how much climate change may have contributed to extreme weather events. The 2016 special issue states, **"The science has now advanced to the point that we can detect the effects of climate change on some events with high confidence"** (Herring et al. 2016).
- The National Academies of Sciences, Engineering, and Medicine issued a report in 2016, *Attribution of Extreme Weather Events in the Context of Climate Change*, that states, **"In the past, a typical climate scientist's response to questions about climate change's role in any given extreme weather event was, 'We cannot attribute any single event to climate change.' The science has advanced to the point that this is no longer true as an unqualified blanket statement"** (NASEM 2016).
- The US Global Change Research Program released the first volume of the *Fourth National Climate Assessment*, the *Climate Science Special Report*, in November 2017. The report states this key finding: **"The attribution of extreme weather and climate events has been an emerging area in the science of detection and attribution. Attribution of extreme weather events under a changing climate is now an important and highly visible aspect of climate science"** (Knutson et al. 2017).

Over the past decade, scientists have been increasingly able to identify and quantify the part human-driven climate change plays in extreme weather events.

Strength of the Evidence

Strong evidence suggests that extreme heat waves, coastal flooding resulting from storm surge and regular high-tide events, and extreme precipitation—including hurricane downpours—bear a strong climate change signature. Scientists are better able to identify climate change's relative contribution for these types of extreme weather events than for others (Knutson et al. 2017). The science is currently less conclusive for tornados, thunderstorms, and some types of droughts, and there is growing evidence for wildfires (Figure).

In the case of wildfires, a combination of factors influences risk. Those tied to human-caused climate change, such as warming temperatures and drying soils, have contributed to observed increases in wildfire activity—area burned, the number of large wildfires, and wildfire season length—in the western United States in recent decades (Abatzoglou and Williams 2016). It is important to note, however, that factors unrelated to climate change, including land use and fire suppression practices, also affect wildfire risk (Wehner et al. 2017). In southern California, for example, while climate change plays a role, development and seasonal Santa Ana winds also contribute to increased wildfire activity (Jin et al. 2015; Miller and Schlegel 2006). However, in high elevation forests where there has been minimal human activity, climate change plays a greater role (Crockett and Westerling 2017; Westerling 2016).

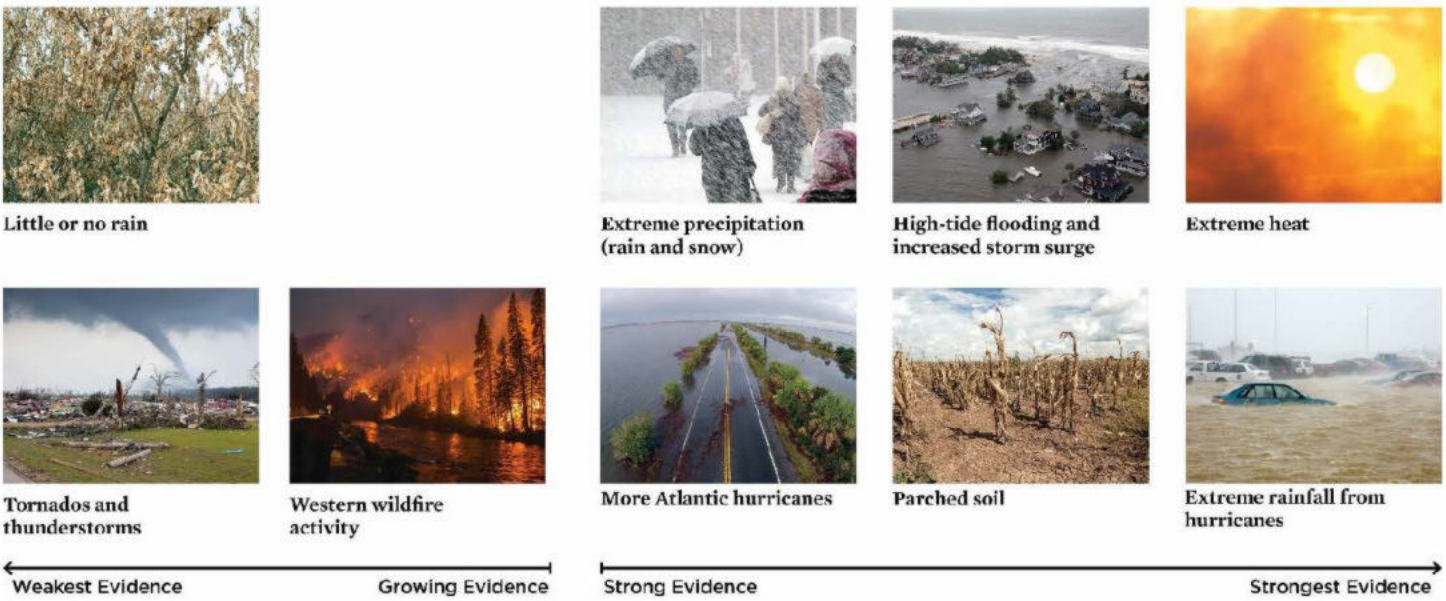
An extreme weather event's intensity is another important factor for determining whether climate change played a role. While many individual extreme events could have occurred in the past, before the advent of human-caused climate change, they likely would not have been as intense without its influence (Fahey et al. 2017). Recent studies find that some record-breaking heat events were so extreme that they would have been nearly or entirely impossible if it were not for human influence on the climate system (Imada et al. 2018; Knutson et al. 2018; Walsh et al. 2018).

Individual Event Attribution

Over the past several years, scientists have been able to discern the influence of climate change on individual extreme weather events, including heat waves, extreme precipitation and flooding events, droughts, and extreme cold snaps, as well as on the intensity of hurricanes.[1]

When scientists investigate climate change's effects on extreme events, they are not asking whether climate change caused an event. Instead, they attempt to determine whether and by how much climate change has affected the likelihood or

The Connection Between Extreme Weather and Climate Change



Scientific evidence for connections between extreme weather events and climate change is stronger for some types of events than for others. Strong evidence exists to connect events to the right of the line break to climate change. Evidence is currently weak or growing for events to the left of the break.

Note: A figure methodology can be found online at *www.ucsusa.org/climateattribution*.

SOURCES: USGCRP 2017; IPCC 2014.

intensity of an event (Stott et al. 2015). They often rely on real-world observations incorporated into climate models, which make calculations to simulate what would likely happen if individual conditions—such as global average temperatures—were different.

Extreme events are by definition rare—if they occurred regularly, we would likely not consider them extreme. By running climate models that recreate real-world conditions at the time of an event, scientists can determine just how rare—that is, how likely or unlikely—an event that actually occurred really was. Researchers then determine the likelihood of the same event under a different set of conditions by repeating the process using a climate model that simulates a hypothetical world in which humans have no influence on the climate (Knutson 2017; NASEM 2016). By comparing the likelihoods under these two scenarios, researchers can determine the extent to which human-caused climate change affected an event.

Recent US extreme weather events that scientists have tied to climate change include:

- **Hurricane Harvey (August 2017):** Human-caused climate change made the record rainfall that hit Houston during Hurricane Harvey roughly three times more likely and 15 percent more intense (van Oldenborgh et al. 2017a; van Oldenborgh et al. 2018).
- **US winter heat wave (February 2017):** Human-caused climate change made the heat wave that spread across the contiguous United States in February 2017 more than three times more likely (van Oldenborgh et al. 2017b).
- **Louisiana floods (August 2016):** Human-caused climate change increased the likelihood of the extreme rain event that hit Louisiana on August 2, 2016, by at least 40 percent (van der Wiel et al. 2017).

implementation of said frameworks, the paper will discuss whether these existing mechanisms can help states manage projected changes in environmental migration patterns and contribute to mitigating the loss and damage caused by climate change. Finally, this paper will provide recommendations on ways the UK Government can support and bolster effective regional responses to environmental migration and prepare for the long-term impacts of slow-onset climate shocks.

Environmental migration: What is driving people to move?

The United Nations (UN) estimates there are over 279 million international migrants across the globe.[12] In addition, at the end of 2020, there were 55 million internally displaced people according to the Internal Displacement Monitoring Centre (IDMC).[13] While the drivers of internal and international migration vary, the decision to move is often rooted in similar considerations. Climate events and environmental impacts already influence the decision to migrate, which is normally multi-causal. This situation is likely to escalate in the years ahead, even with strong climate change mitigation and adaptation measures.[14] This is mainly because already fragile states cannot always cope economically, socially, politically, or structurally with extreme climate events and environmental change, including both slow- and sudden-onset events.[15] Environmental migration can be seen as a way to avoid the loss and damage resulting from climate change and natural disasters.[16] This paper will specifically focus on the reduction of personal and national loss and damage through the bolstering of strong regional mechanisms to support environmental migration.

In some of the most disaster-prone and climate-vulnerable regions, evidence suggests migration represents a strategy to cope with environmental events.[17] This is illustrated by populations moving to escape droughts in Somalia, flooding in Bangladesh, or turbulent weather conditions in Kenya.[18] Yet while many expect an increase in national, regional, and

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[12] United Nations Department of Economic and Social Affairs (UN-DESA), "The Number of International Migrants Reaches 272 Million, Continuing an Upward Trend in All World Regions, Says UN," United Nations (UN), https://www.un.org/development/desa/en/news/population/international-migrant-stock-2019.html.
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[14] IPCC, "Climate Change 2021: The Physical Science Basis," Sixth Assessment Report, accessed November 10, 2021, https://www.ipcc.ch/report/ar6/wg1/.
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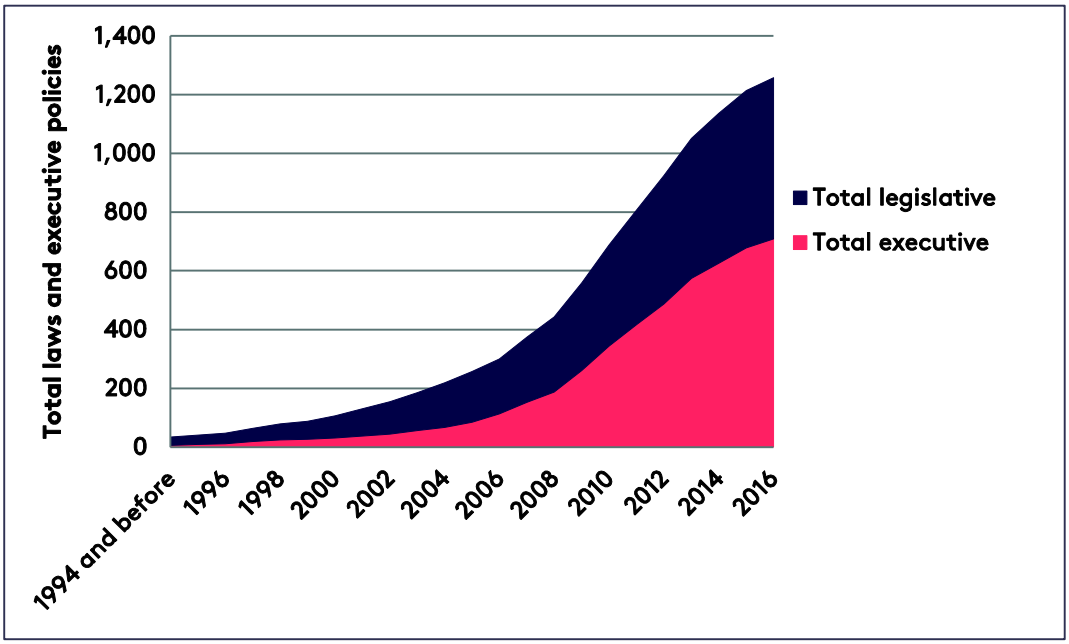
2. Trends in legislation

The global stock of climate legislation has grown to over 1,200 laws

In early 2017, there were more than 1,200 laws and policies in the 164 countries represented in this report. This compares with around 60 climate laws in 1997. In the 20 years since the Kyoto Protocol was agreed, the number of climate change laws has increased by over a factor of 20. This translates into a doubling in the stock of climate laws globally every four to five years (Figure 1).

Figure 1. Legislative and executive acts up to 2016



Source: Climate Change Laws of the World

Figures 2 and 3 show how law-making on climate change has spread across the globe over the past two decades, from a very limited legislative response in the pre-Kyoto Protocol days, to a widespread, substantive body of legislation by the end of 2016. There are only a handful of countries (Comoros, Equatorial Guinea, Libya, Somalia and Sudan) that currently do not have any legislative instruments to directly address climate change.

Countries use different routes to address climate change. In some countries the primary avenue is acts of parliament, that is, formal laws passed by the legislative branch. In other countries, it is executive policies (including, among others, executive orders, decrees, strategies and development plans), that sketch out the policy frameworks and the way forward. Overall, approximately 44 per cent of entries in the dataset are legislative acts of parliament, and the remaining 56 per cent are executive policies.

The variance reflects different regulatory traditions and different local contexts. For example, in China the executive branch, through the National Development and Reform Commission, is the dominant agency in climate policy development, coordinating all participating government agencies and guiding the relevant reforms. This is different to countries with strong parliamentary traditions, such as the UK, where the legislative branch takes the lead on policy development.

Less legislative and more executive activity may also reflect an early phase in climate policy development, when executive policies have not yet matured into formal legislation, or it may be that legislative capacities are insufficient. In the least developed countries, for example, only 23 per cent

3. Trends in litigation

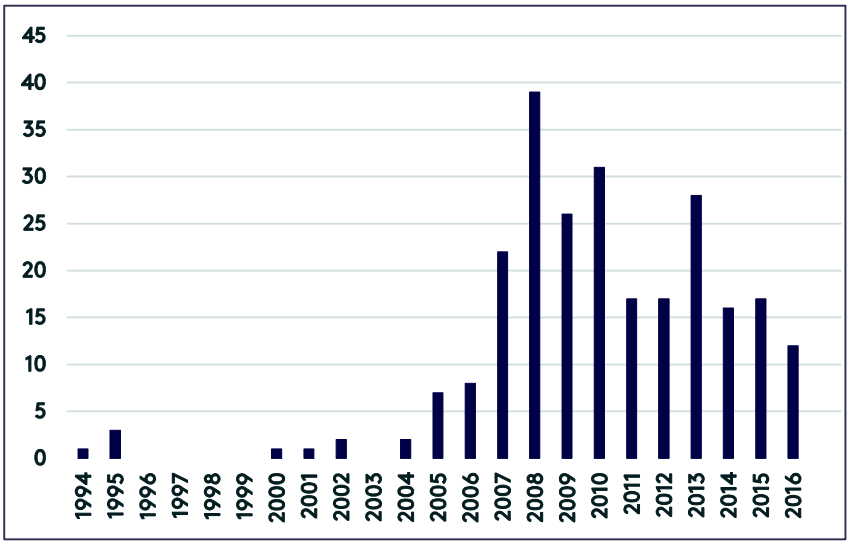
The number of climate litigation cases is rising

Fighting climate change and climate change laws or policies in the courts is increasingly seen as a viable strategy as more cases are being initiated.

The *Climate Change Litigation of the World* dataset includes over 250 court cases across 25 jurisdictions for which data exists. (The dataset excludes the United States and its more than 600 court cases, which are recorded in a separate database;[1] the jurisdictions are listed in Appendix 2.) The database includes information on case names, year, parties involved, jurisdiction, principal law, core object, decision or outcome, current status, and summary information. While the first case in the dataset is from 1994, cases are few and infrequent until the mid-2000s. Since then there have been at least 10 court cases per year in the jurisdictions covered.

Figure 6 shows the number of litigation cases over time, and Figure 7 shows the distribution of cases across countries.

Figure 6. Number of litigation cases in 25 jurisdictions, 1994–2016



Source: Climate Change Litigation of the World

Box 1. Climate change on the edge… and at the centre of litigation

An example of a court case where climate change is at the *periphery* is a decision made by the Brazilian Superior Court of Justice to prohibit the use of fire as a harvesting method for sugar cane. The court considered, among other environmental impacts, the negative effects of carbon emissions.

A further example from Brazil, where climate change is *central* to the case, is a series of class actions brought by the Public Prosecutor Office against the airlines using São Paulo's international airport. The court was called to order the reforestation of lands around the airport to offset greenhouse gas emissions and other pollutants.

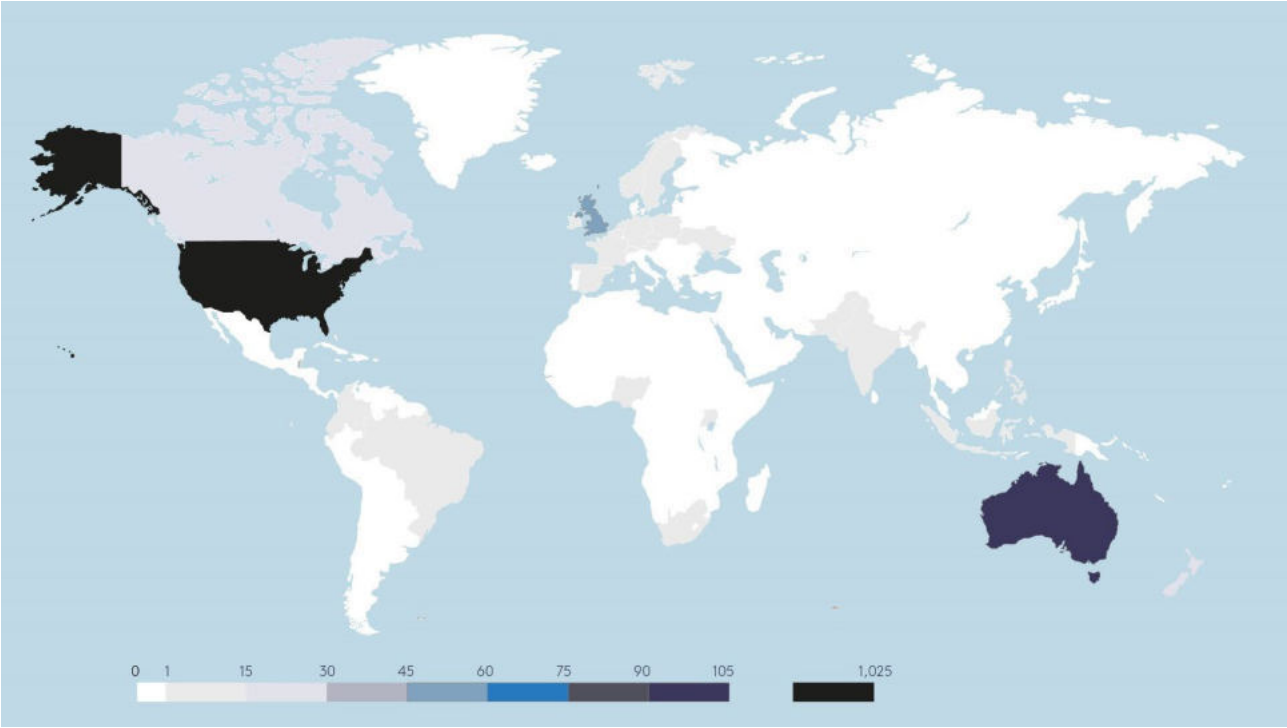
Climate change is not central to all of these cases. In fact, in over three-quarters of the cases (77 per cent) climate change is only at the periphery of the argument. (See Box 1 for contrasting examples from Brazil.) On the one hand, this suggests that the majority of the cases classified as climate litigation today are not core climate change cases, but cases that acknowledge climate change as a relevant factor. On the other, even if climate change is a peripheral issue, the judiciary is increasingly exposed to climate change arguments in cases where, until recently, the environmental argument would not have been framed in those terms. For instance, challenges to fossil fuel-related projects have been brought for many years, but it is only in the last decade that climate change has been used as part of the argument or as a motivation for those cases.

[1] See http://wordpress2.ei.columbia.edu/climate-change-litigation/us-climate-change-litigation/

2015 was a landmark year for climate change litigation. The Lahore High Court decision in the Ashgar Leghari case and the first-instance outcome of the Urgenda case brought climate change litigation into the limelight, with increased international attention on climate change arising from the adoption of the Paris Agreement in December 2015.

As of May 2019, cases have been identified in at least 28 countries (including the US), in addition to cases brought to the Court of Justice of the European Union (which consists of the Court of Justice and the General Court), the Inter-American Court on Human Rights, the Inter-American Commission on Human Rights and the UN Human Rights Committee. More than three-quarters of cases identified globally have been filed in the US.

Figure 1. Map to show location and quantity of climate cases up to May 2019



Sources: Authors, using www.lse.ac.uk/GranthamInstitute/climate-change-laws-of-the-world/ and http://climatecasechart.com/us-climate-change-litigation/

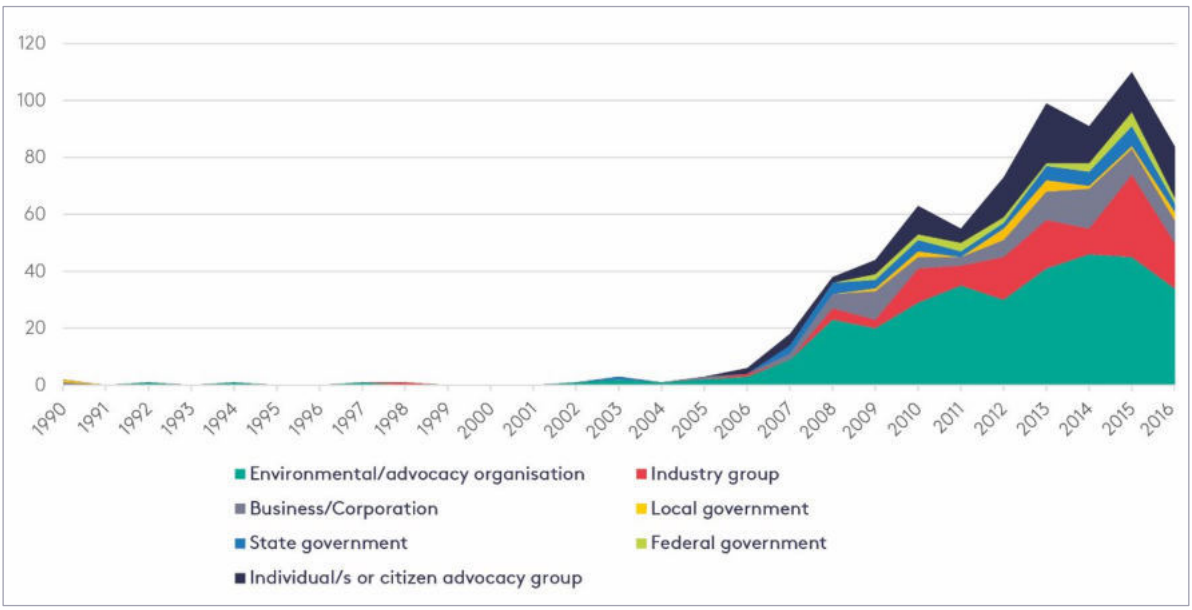
Table 1. Number of cases identified by jurisdiction

Australia	94	Austria	1	Belgium	1
Brazil	5	Canada	16	Colombia	2
Czech Republic	1	Ecuador	1	European Union	55
France	6	Germany	5	India	10
Indonesia	1	Inter-American Commission on Human Rights	2	Inter-American Court on Human Rights	1
Ireland	3	Netherlands	2	New Zealand	17
Nigeria	1	Norway	1	Pakistan	2
Philippines	2	Poland	1	South Africa	3
Spain	13	Sweden	1	Switzerland	1
Uganda	1	Ukraine	2	United Kingdom	53
UN Human Rights Committee	1	United States	1,023	**Total**	**1,328**

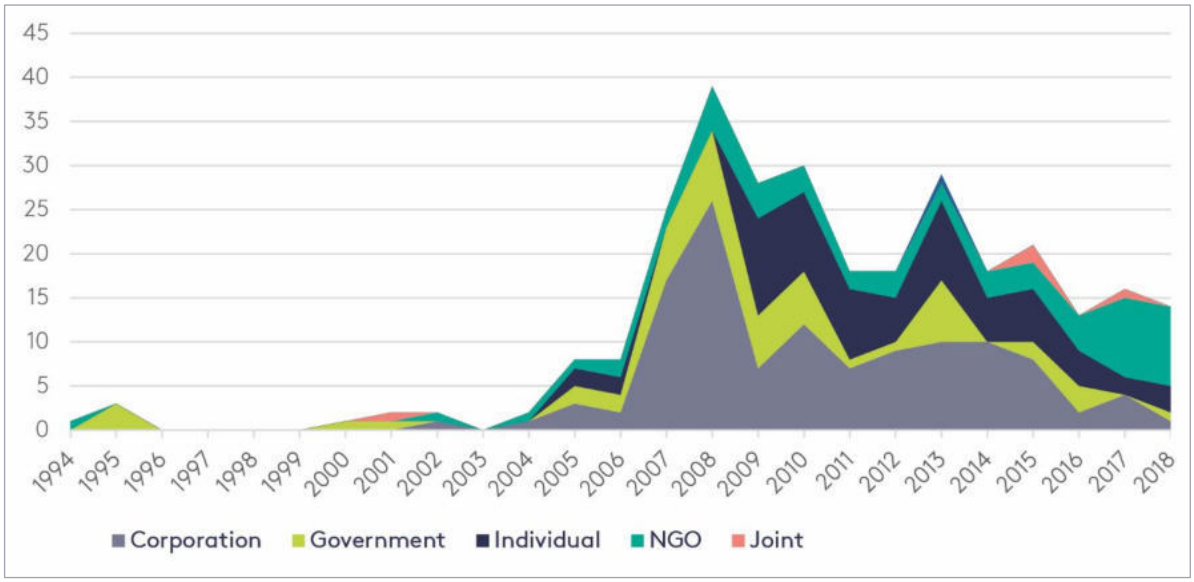
increasingly engaged. While US data on plaintiff-type is only complete up to 2016, it shows a key role for NGOs in climate protection before the courts. An analysis of cases pertaining to US federal climate change policy during the Trump presidency filed in 2017 and 2018 shows that, at least for this group of cases, this trend has continued. Of the 129 cases that sought to advance and uphold climate protections, NGOs made up the vast majority of applicants (66 per cent), followed by governments at 22 per cent. By contrast, of the 25 cases that sought to undermine climate protections, the vast majority were brought by industry at around 60 per cent, followed by NGOs at around 23 per cent (Adler, 2019).

Figure 3. Applicants bringing climate change litigation cases, showing increased participation by NGOs

a) United States: 1990–2016



b) Outside the United States: 1994–2018



Sources: McCormick, Glicksman et al. (2018); www.lse.ac.uk/GranthamInstitute/climate-change-laws-of-the-world/

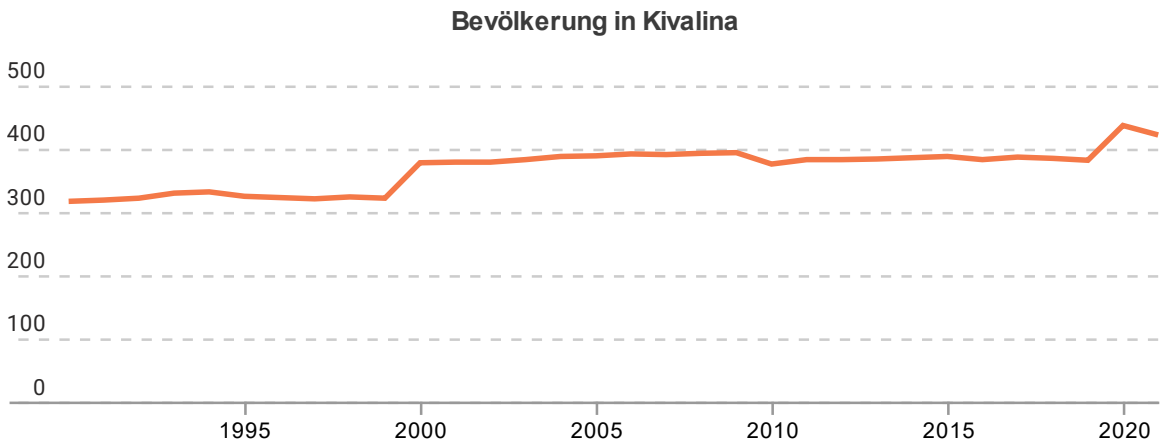
The majority (around 80 per cent) of cases focus on mitigation rather than adaptation. Citizens are more likely than any other applicant group to bring cases focused on adaptation, with almost half of cases brought by citizens focusing on adaptation, compared with only around one-fifth of those brought by corporations, and much fewer for governments and NGOs, including environment and industry advocacy groups.

Introduction

ExxonMobil, the world's largest publicly traded corporation, doesn't want you to know the facts about global warming. The company vehemently opposes any governmental regulation that would require significantly expanded investments in clean energy technologies or reductions in global warming emissions. That is what the public and policymakers are likely to demand when they know the truth about climate science. Consequently, the corporation has spent millions of dollars to deceive the public about global warming. In so doing, ExxonMobil has underwritten the most sophisticated and successful disinformation campaign since Big Tobacco misled the public about the incontrovertible scientific evidence linking smoking to lung cancer and heart disease. In fact, as this report shows, many of the tactics, and even some of the same organizations and actors used by ExxonMobil to mislead the public, draw upon the tobacco industry's 40-year disinformation campaign.

This report documents ExxonMobil's central role in the current disinformation campaign about climate science, identifying the campaign's rationale, who's behind it, and how it has been able—so far—to successfully mislead the public, influence government policies, and forestall federal action to reduce global warming emissions.

ExxonMobil's cynical strategy is built around the notion that public opinion can be easily manipulated because climate science is complex, because people tend not to notice where their information comes from, and because the effects of global warming are just beginning to become visible. But ExxonMobil may well have underestimated the public. The company's strategy quickly unravels when people understand it for what it is: an active campaign of disinformation.



Daten von www2.census.gov über Data Commons

For the project to be successful in the long term, a site must be identified that is feasible in terms of:

- physical environment; including vulnerability to physical processes such as erosion, flooding, and weather;
- construction and utilities development, including cost of development and feasibility of cost efficient utilities;
- vulnerability to natural processes; and
- acceptable to community residents.

Relocation costs have been estimated for each relocation site. Costs include erosion protection at certain village sites. Section 5.3 includes a discussion of cost considerations. Costs for relocation, in 2006 dollars, not including engineering, permitting, and construction administration fees are shown below. Costs for the engineering are typically 8% of construction costs, with permitting and rural construction administration 5% and 6% respectively.

- Tatchim Isua - $154.9 million
- Improve Kivalina - $196.2 million
- Kuugruaq - $245.6 million
- Igrugaivik - $246.1 million
- Kiniktuuraq - $248.2 million
- Imnakuk Bluffs - $248.7 million
- Simiq - $251.5 million

The "do nothing" option will result in the current village site being overtopped with water during a storm or eroded away over time, and ultimately having to be abandoned. Improvements to the current site are limited due to location, vulnerability to storm surge flooding, overcrowding/lack of room to expand, and funding. Several sites identified as potential new village sites have significant problems relating to geophysical incompatibility with development, susceptibility to erosion or flooding, permitting, and social and cultural objections.

Although site selection has proved problematic, it is important that the project overcome this obstacle. The current community is reaching a critical state in terms of its continued survival in its current location.

The next steps in the relocation process involve three sets of activities.

1. Pursue Temporary Erosion Protection Measures. Temporary measures are needed to protect the school and fuel facilities from erosion. The community of Kivalina, working with the Northwest Arctic Borough, Alaska District Corps of Engineers, and other entities such as the Denali Commission should work cooperatively to obtain funding, design and construct suitable erosion protection structures.
2. Confirm Community Selection for Relocation Site. The community needs to carefully review this report and the advantages and disadvantages associated with each sites, including relative risk and likelihood of receiving addition funding.

December 2003

ALASKA NATIVE VILLAGES

Most Are Affected by Flooding and Erosion, but Few Qualify for Federal Assistance

GAO Accountability • Integrity • Reliability

Highlights

Highlights of GAO-04-142, a report to the Senate and House Committees on Appropriations

Why GAO Did This Study

Approximately 6,600 miles of Alaska's coastline and many of the low-lying areas along the state's rivers are subject to severe flooding and erosion. Most of Alaska's Native villages are located on the coast or on riverbanks. In addition to the many federal and Alaska state agencies that respond to flooding and erosion, Congress established the Denali Commission in 1998 to, among other things, provide economic development services and to meet infrastructure needs in rural Alaska communities.

Congress directed GAO to study Alaska Native villages affected by flooding and erosion and to 1) determine the extent to which these villages are affected, 2) identify federal and state flooding and erosion programs, 3) determine the current status of efforts to respond to flooding and erosion in nine villages, and 4) identify alternatives that Congress may wish to consider when providing assistance for flooding and erosion.

What GAO Recommends

GAO presents to Congress a matter for consideration that directs federal agencies and the Denali Commission to assess the feasibility of alternatives for responding to flooding and erosion. In addition, GAO recommends that the Denali Commission adopt a policy to guide future infrastructure investments in Alaska Native villages affected by flooding and erosion.

www.gao.gov/cgi-bin/getrpt?GAO-04-142.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Anu Mittal at (202) 512-3841 or mittala@gao.gov.

What GAO Found

Flooding and erosion affects 184 out of 213, or 86 percent, of Alaska Native villages to some extent. While many of the problems are long-standing, various studies indicate that coastal villages are becoming more susceptible to flooding and erosion due in part to rising temperatures.

The Corps of Engineers and the Natural Resources Conservation Service administer key programs for constructing flooding and erosion control projects. However, small and remote Alaska Native villages often fail to qualify for assistance under these programs—largely because of agency requirements that the expected costs of the project not exceed its benefits. Even villages that do meet the cost/benefit criteria may still not receive assistance if they cannot meet the cost-share requirement for the project.

Of the nine villages we were directed to review, four—Kivalina, Koyukuk, Newtok, and Shishmaref—are in imminent danger from flooding and erosion and are planning to relocate, while the remaining five are in various stages of responding to these problems. Costs for relocating are expected to be high. For example, the cost estimates for relocating Kivalina range from $100 million to over $400 million. Relocation is a daunting process that may take several years to accomplish. During that process, federal agencies must make wise investment decisions, yet GAO found instances where federal agencies invested in infrastructure at the villages' existing sites without knowledge of their plans to relocate.

GAO, federal and state officials, and village representatives identified some alternatives that could increase service delivery for Alaska Native villages, although many important factors must first be considered:

- Expand the role of the Denali Commission.
- Direct federal agencies to consider social and environmental factors in their cost/benefit analyses.
- Waive the federal cost-sharing requirement for these projects.
- Authorize the "bundling" of funds from various federal agencies.

Bluff Erosion at Shishmaref

Source: GAO.

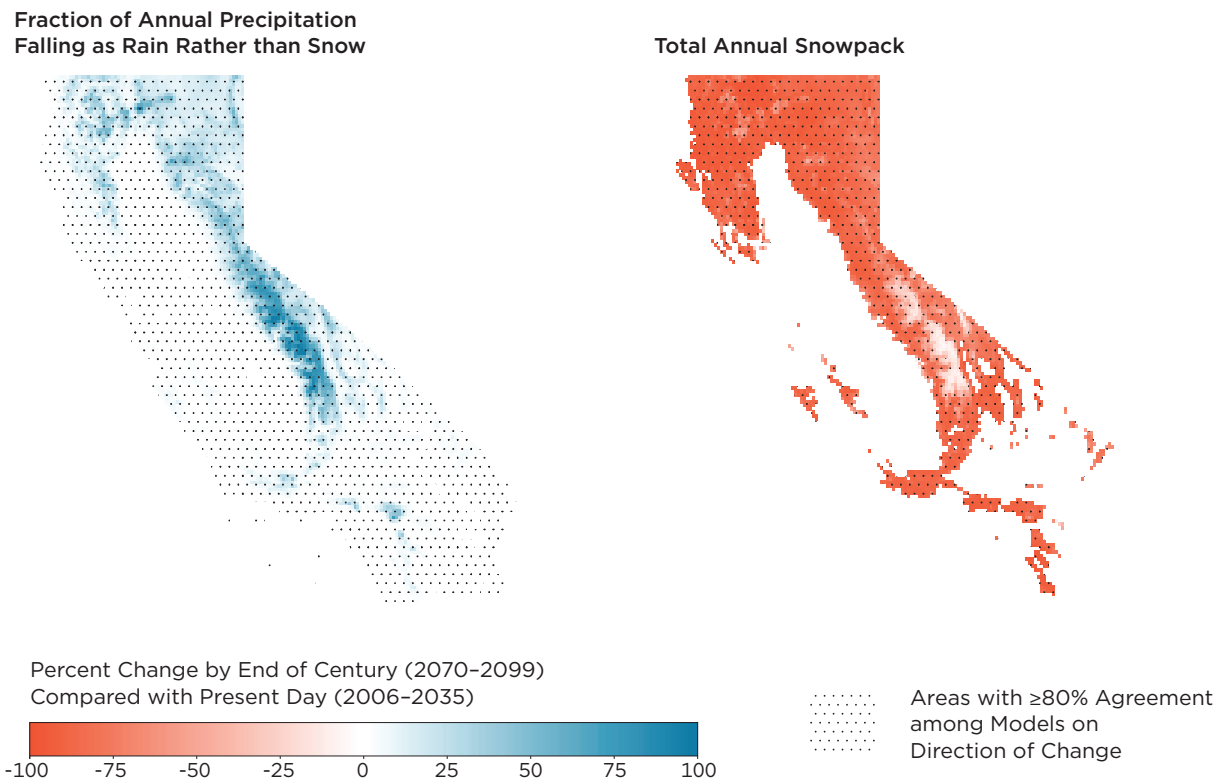
The research analyzed data from two scenarios used by the state, which project two options for how severe and rapid the trajectory of climate change could be depending on society's emissions choices. The maps and values shown here are for the more severe of the two scenarios, but even with a slower rate of climate change, the trajectory and high certainty shown here still apply (Persad et al. 2020). The projected changes have profound implications for on-the-ground water supply outcomes.

The climate projections agree on the following shifts by the end of the century with severe climate change:

- **Snowpack health declines.** The ratio of rainfall to snowfall is projected to increase statewide and almost double in the high Sierra, with almost complete snowpack loss at lower elevations statewide (Figure 2). This essentially eliminates the natural snowpack reservoir as a reliable form of storage. In addition, the risk of rain-on-snow events that cause rapid snowmelt and flooding increases wherever snowpack remains (see table), jeopardizing the water supply benefits of healthy snowpack years.

Climate change datasets agree on a range of shifts creating new, troubling, and predictable stress for the state's water resources.

FIGURE 2. Climate Model Agreement on Statewide Loss of Snowfall and Snowpack due to Severe Climate Change by End of Century



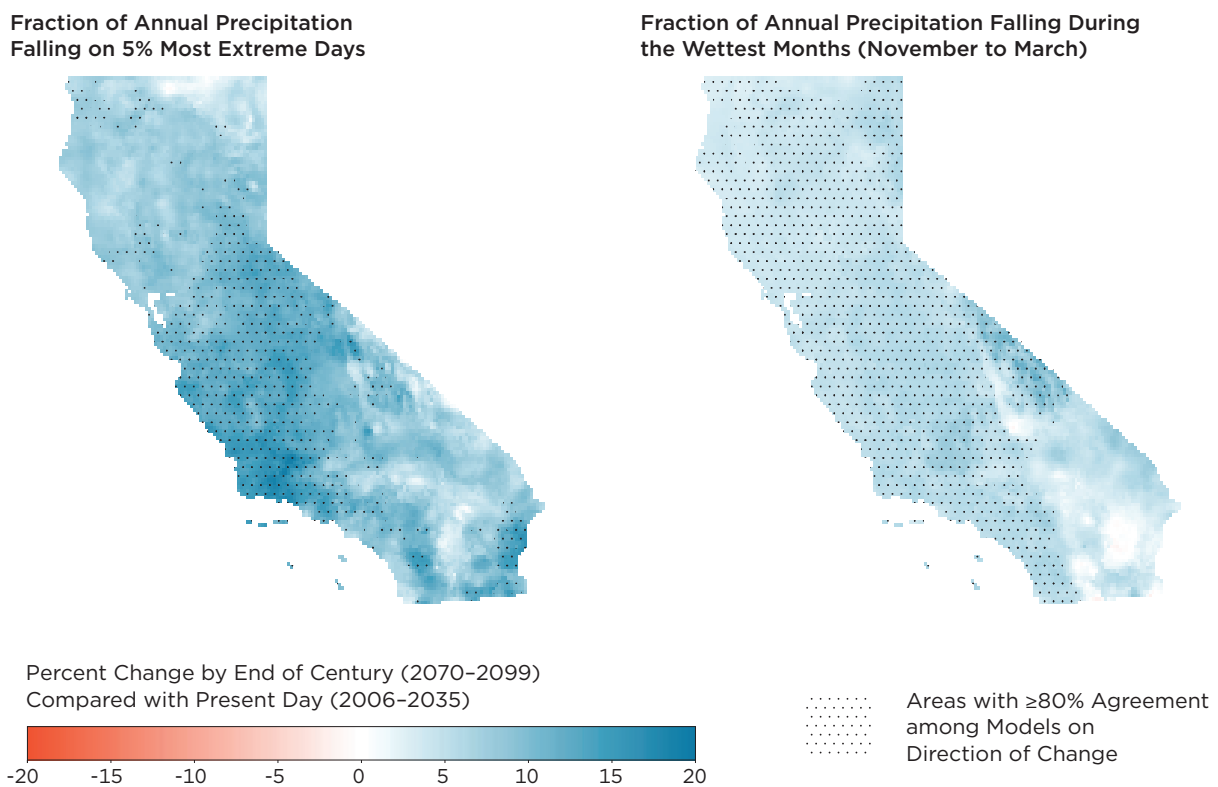
UCS analysis shows that the global climate models used in California state climate assessments agree on more yearly precipitation arriving as rain rather than snow (blue shades) and drastic declines in snowpack (orange shades), as well as nine other critical shifts in how, when, and where California gets its water.

Note: Changes are shown for end-of-century average conditions (2070–2099) compared with present-day average conditions (2006–2035) under the more severe of two available climate change scenarios.

- **Precipitation becomes more extreme.** The proportion of yearly precipitation that arrives in the most extreme events is projected to increase by more than 15 percent across central California (Figure 3). Extreme events become more intense statewide (see table), in certain places by 40 to 50 percent (Persad et al. 2020). These types of events increase the risk of floods and mudslides and make precipitation harder to store and manage.
- **The wet and dry seasons intensify.** The proportion of yearly precipitation that falls in the already wet winter months is projected to increase statewide by 5 to 6 percent (Figure 3) and by up to 20 percent in certain places (Persad et al. 2020). This requires greater water storage in a shorter timespan and creates a longer and more intense dry season when stored supplies must meet demand.
- **Swings between extreme years increase.** The likelihood of very wet and very dry years is projected to increase, doubling or tripling in parts of the state (Persad et al. 2020), resulting in a higher likelihood of swings between very wet and very dry years and increased overall volatility of year-to-year precipitation (see table). Similar volatility following the 2012–2016 drought contributed to fatal mudslides, unexpected wildfire behavior, and damage to water infrastructure.

The high level of model agreement holds across both climate change scenarios used by the state, but the magnitude of impacts and how quickly they manifest could be reduced with serious additional worldwide commitments to reduce heat-trapping emissions.

FIGURE 3. Climate Model Agreement on Statewide Shifts in the Intensity and Seasonality of California's Precipitation due to Severe Climate Change by End of Century



UCS analysis shows that the global climate models used in California state climate assessments agree on an increased concentration of yearly precipitation into the most extreme days and into the already wet winter months, as well as nine other critical shifts in how, when, and where California gets its water.

Note: Changes are shown for end-of-century average conditions (2070–2099) compared with present-day average conditions (2006–2035) under the more severe of two available climate change scenarios.

Global warming is caused by the retention of extra heat in the atmosphere from increasing concentrations of carbon dioxide and other greenhouse gases. Some of this extra heat is absorbed by the oceans, causing them to warm up and expand. The physical manifestations of these changes in the climate are expected to be:

1. Higher temperatures and heat waves
2. Water uncertainty: drought, wildfire, extreme storms and flooding
3. Sea level rise

In trying to characterize the impacts of climate change as specifically to the Bay Area as possible, SPUR found that studies and data were not always available at the regional scale. However, because the state has done so much research to predict impacts in California, we could find reliable information about state and national trends that we can also expect to occur more locally.

1. Higher temperatures and heat waves

Temperature changes are the primary marker of climate change, and they are also the key driver of changes in other natural systems such as sea levels and hydrologic cycles. However, global temperature rise is not expected to occur uniformly. There are two ways to predict future temperatures in any one place: local trend analysis and downscaling global-scale climate models. Trend analysis requires detailed and lengthy past records of temperature (which the Bay Area has), while global climate models have not been developed at regional or local scales but may be better at predicting future conditions, which are likely to be different than those of the past. In the Bay Area, analysis of historical temperature records from local weather stations since 1950 has shown either no statistical warming or a slight warming of mean temperature.[11] In the future, according to downscaled global climate models, the general trend for California is forecast to be a minimum rise of 2 degrees Celsius over the next 100 years. The California Adaptation Strategy projects a rise of 2 to 5 degrees Celsius (4 to 9 degrees Fahrenheit) by 2100, the higher end of the range corresponding to higher-emission world development scenarios modeled by the Intergovernmental Panel on Climate Change.

This means that statewide average temperatures are expected to increase across California, with more pronounced increases in the summer months and nighttime temperatures. Heat waves are expected to increase in frequency, with individual heat waves becoming longer and extending over a larger area, making them more likely to encompass multiple population centers in California at the same time. [12] Inland areas are likely to experience more warming than coastal regions. In the Bay Area, the eastern and southern portions of the region are likely to see more pronounced warming than the coastal, northern and central Bay regions.

Increased temperatures will affect human health, public health systems and the energy grid. There will be an increase in the average number of "extreme heat days"—days that exceed the region's 90th-percentile average temperature.[13] From a 20th-century baseline of an average 12 extreme heat days per year in San Francisco, we may expect to see 20 such days annually through 2035, between 32 and 46 extreme heat days annually by mid-century and 70 to 94 days by the end of the century—an eightfold increase from today.[14] This will increase the likelihood of heat-related illness and deaths, burdens that will fall disproportionately on vulnerable communities, especially the poor, the elderly and young children.[15]

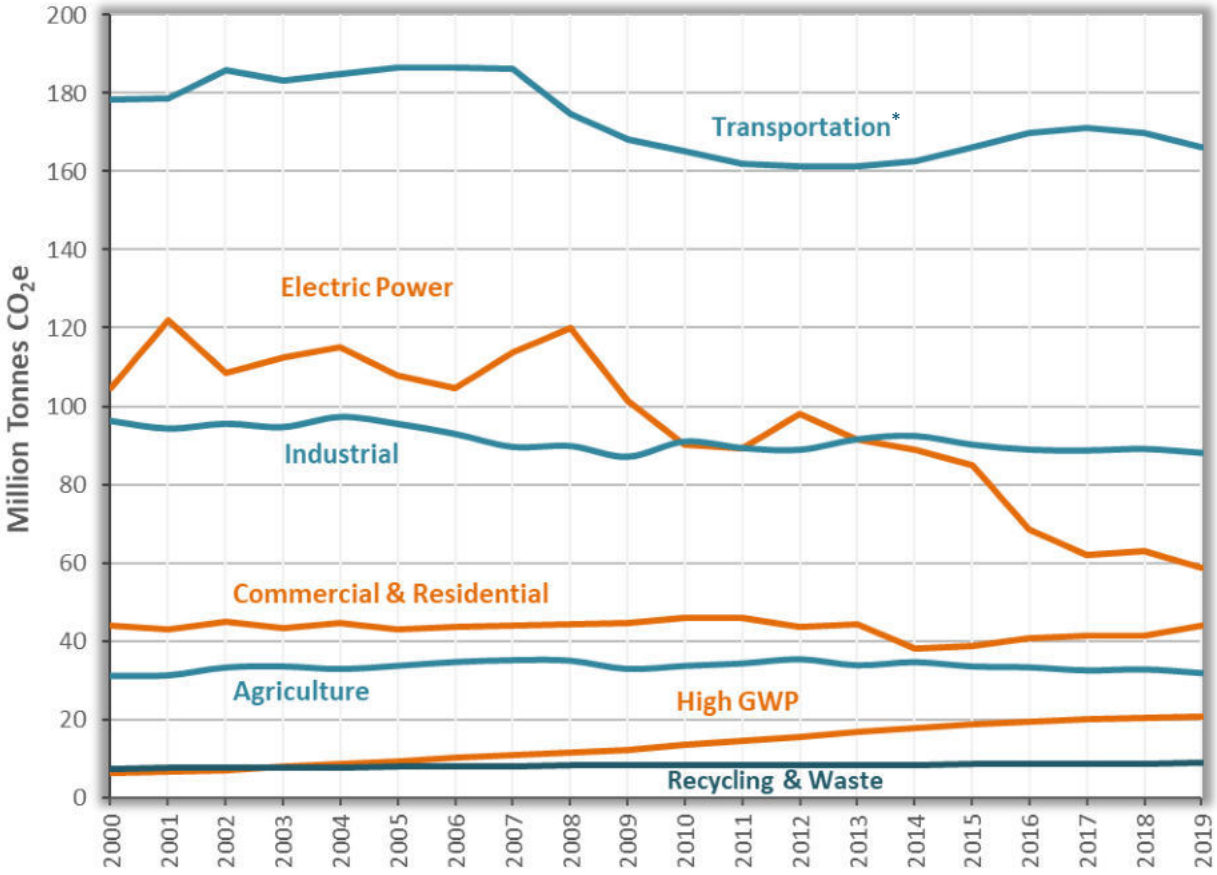
Increased annual temperatures will also lead to shifts in the range, distribution and abundance of plant and animal species.[16] This will lead to an overall loss of biodiversity across the state but also to increases within specific areas, such as in the coastal range, with important implications for conservation. Non-native and exotic species, disease and pests are expected to increase, negatively affecting the region's native flora and fauna. Many species are expected to shift to the north and to higher elevations as a refuge from hotter and drier conditions.[17]

2. Water uncertainty: droughts, wildfire, extreme storms and flooding

Precipitation patterns that affect most of California's water supplies are likely to change because of global warming. The Bay Area will see fresh and salt water in unusual quantities, in unusual places and at unusual times. Generally, toward the end of the century we are likely to experience more prolonged shortages in freshwater supplies, as well as extreme weather that could increase local and urban flooding from severe storms. However, we are not expected to experience significant seasonal shifts in our Mediterranean climate of wet winters and hot, dry summers.[18]

With respect to surface water, the Sierra snowpack that provides natural water storage for freshwater supply—essential for many Bay Area water agencies—is likely to melt earlier and more rapidly. Longer and drier droughts are predicted before the end of the century, leading to increasing frequency and magnitude of water shortages, and exacerbating conflict over an already stretched resource. Across the state, more precipitation will fall as rain instead of snow, leading to water-storage challenges in the dry season. Higher air temperatures will increase water uptake by plants, increase evaporation and decrease soil moisture, resulting in less water flowing into reservoirs. Higher temperatures will also increase water demand across all sectors: domestic, agricultural, commercial and industrial. High water temperatures could decrease water quality, especially in lakes and reservoirs, which could endanger aquatic animals such as cold-water fish, insects and crustaceans.

Figure 3. Trends in California GHG Emissions.



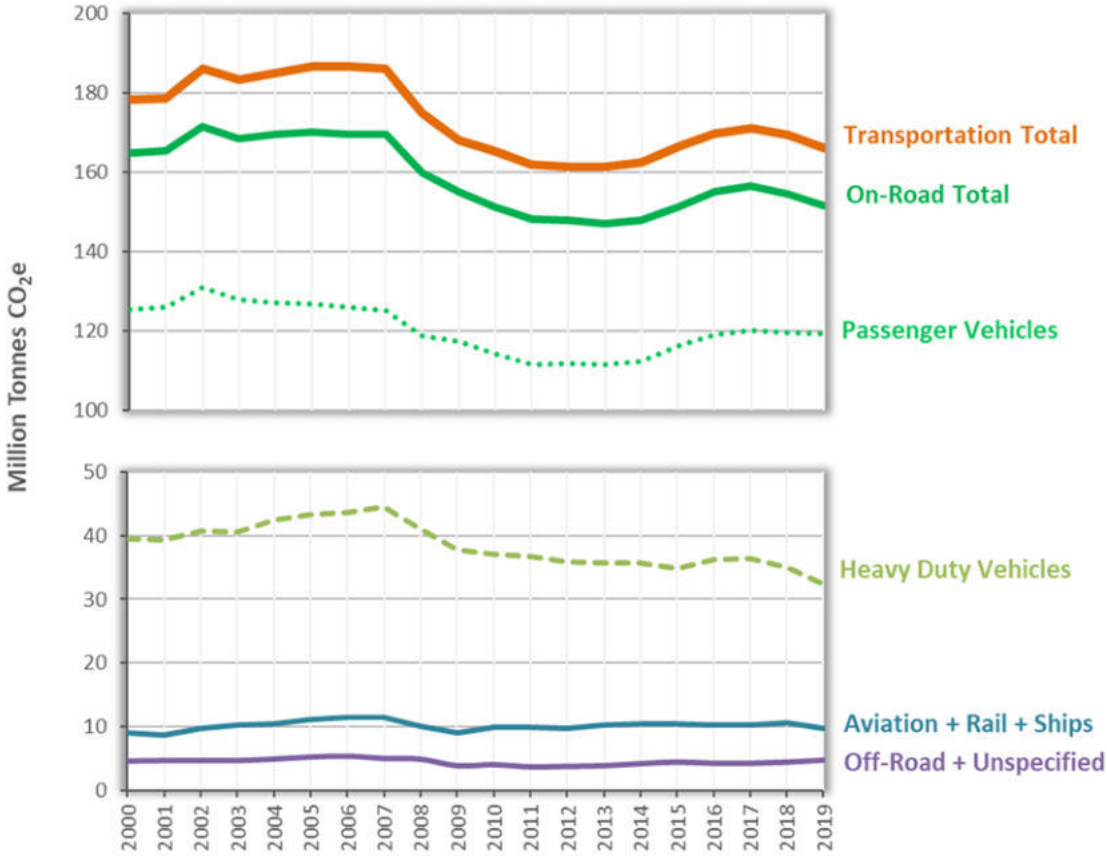
This figure shows changes in emissions by Scoping Plan sector between 2000 and 2019. Emissions are organized by the categories in the AB 32 Scoping Plan.,

*The transportation sector represents tailpipe emissions from on-road vehicles and direct emissions from other off-road mobile sources. It does not include emissions from petroleum refineries and oil extraction and production, which are included in the industrial sector.

Transportation Sector

The transportation sector remains the largest source of GHG emissions in 2019, accounting for 40 percent[b] of California's GHG inventory. Contributions from the transportation sector[c] include emissions from combustion of fuels in-state that are used by on-road and off-road vehicles, aviation, rail, and water-borne vehicles, as well as a few other smaller sources. (In this report, emissions from refrigerants used in vehicles, airplane, train, and ship and boat are shown in the High-GWP gases category). Continuing the downward trend from 2018, transportation emissions decreased again in 2019. Figure 5 shows emissions by transportation source categories and the sector total.

Figure 5. Overview of GHG Emissions from the Transportation Sector.



[b] The 40 percent figure represents tailpipe emissions from on-road vehicles and direct emissions from other non-road transportation sources. It does not include emissions from petroleum refineries and oil extraction and production, which are included in the industrial sector.

[c] Emissions from the following sources are not included in the GHG inventory for the purpose of comparing to the GHG Limit, but are tracked separately as informational items and are published with the GHG inventory: interstate and international aviation, diesel and jet fuel use at military bases, and a portion of bunker fuel purchased in California that is combusted by ships beyond 24 nautical miles from California's shores. The following emissions are not included or tracked in the GHG inventory: emissions from the combustion of fuels purchased outside of California that are used in-state by passenger vehicles and trains crossing into California, and out-of-state upstream emissions accounted for in the Low Carbon Fuel Standard (LCFS) program.

Troubled Waters

Preparing for Climate Threats to California's Water System

HIGHLIGHTS

Water is core to California's way of life. But as climate change causes more volatile precipitation, less snowpack, more flooding, higher temperatures, and shorter wet seasons, the water system will increasingly fail to meet the needs of California's communities, industry, and agriculture. New analysis by the Union of Concerned Scientists shows that the data and certainty needed to quantitatively plan for climate change in California water management are available now. This report outlines the key shifts in California's hydroclimate; illustrates the risks for California's residents, businesses, and agriculture if these shifts are ignored; and describes how the state can jumpstart the comprehensive climate planning that is needed.

Water is California's connective tissue. More than 1,300 federal, state, and local surface reservoirs across California capture precipitation, snowmelt, and runoff. Thousands of miles of canals, natural waterways, and pipes bring that water to the state's 40 million residents, 10 million acres of irrigated farmland, and thriving industries. The state's 515 groundwater basins supply additional water year-round, acting as a vital buffer during dry periods. However, this highly engineered and interdependent system, which has enabled so much of California's vibrancy, is already stressed—by rising demand for water, aging infrastructure, and extreme cycles of drought and flooding. Now, climate change threatens to break California's water system altogether, creating new vulnerabilities for which infrastructure and institutions are unprepared.

Yet California continues to make water management decisions based on the past—often because climate change is seen as too uncertain, too distant, or too difficult to integrate into decisionmaking. In its slowness to act, California has lost valuable time. The delay risks intensifying the existing water inequities between well-resourced communities that have the ability to pay for their own climate risk analysis and adaptation, and the already vulnerable communities that do not. Change is urgently needed.

Citizen of the Planet/Alamy Stock Photo

Residents of East Porterville, California, unload bottled water during the height of the 2012–2016 drought, when many of the town's wells ran dry. Water supplies in California's disadvantaged communities have seen extreme impacts from the state's recent climate crises. Slow action to increase the climate resilience of the state's water system risks increasing inequities between communities that can afford their own climate planning and adaptation and those that cannot.

Union of Concerned Scientists

New analysis by the Union of Concerned Scientists (UCS) and its collaborators demonstrates that climate change is transforming how, when, and where California gets water—its hydroclimate—changes that can be measured with enough certainty to enable strategic climate and water planning (Persad et al. 2020) (Figure 1). This analysis highlights several critical challenges that climate change will create for California's water management within this century, what they mean for managing the state's water, and how the state and water management community can respond:

- **Climate change will transform key aspects of how, when, and where California gets its water.** Precipitation will arrive increasingly as rain rather than snow, occur in more intense events, and be concentrated into the already wet winter months. Volatility between overall dry and wet water years will increase. Snowpack will decline dramatically.
- **Climate change projections agree on a range of critical shifts that need to be accounted for in all California water decisionmaking.** Climate change datasets developed for the state climate assessment show almost universal agreement on these transformations in California's water. But most federal, state, and local water planning does not account for this critical information.
- **State agencies and water managers are underprepared for the water management challenges of California's altered hydroclimate.** The projected impacts of climate change are likely to damage the viability and sustainability of California's surface reservoirs and increase demands on its groundwater aquifers.

> ***Climate change threatens to break California's water system altogether, creating new vulnerabilities for which infrastructure and institutions are unprepared.***

Water planning based on historical conditions misses these critical impacts. If water planning continues to fail to account for the full range of likely climate impacts, California risks wasted water investments, unmet sustainability goals, and increased water supply shortfalls.

- **Ensuring the resilience of communities in the face of California's new hydroclimate will require transformational, but achievable, change in approaches to water management and decisionmaking.** The state's altered hydroclimate will require California to become more flexible in how it uses and manages water. The climate data and water management expert communities need to become regular collaborators, working together to develop new planning protocols and operations models able to take all future climate-changed conditions into account. State and local water regulations, including the landmark 2014 Sustainable Groundwater Management Act, need to be updated to require comprehensive climate planning.

California Department of Water Resources

Lake Oroville, California's second largest reservoir, went from record low levels in 2014 (left) to flood conditions requiring the use of its main and emergency spillways, which failed under the extreme flows, in 2017 (right). Climate projections agree on increases in both extreme drought and extreme flood risk. The state must begin planning and adapting the water system for these future conditions now.

in that state for any single day in the month of August, and one of them caused the only August tornado fatality on record in Georgia.

c. Casualty and Damage Statistics

Katrina was a large and intense hurricane that struck a portion of the United States coastline along the northern Gulf of Mexico that is particularly vulnerable to storm surge, leading to loss of life and property damage of immense proportions. The scope of human suffering inflicted by Hurricane Katrina in the United States has been greater than that of any hurricane to strike this country in several generations.

Estimates of fatalities related to Katrina that were published in the original versions of this Tropical Cyclone Report in 2005 and 2006 indicated that there were over 1800 deaths. Since that time, additional information has become available, primarily from medical logs of more than 1000 victims provided by state officials in Louisiana and Mississippi. This update is based on the published studies of Rappaport (2014)[1] and Rappaport and Blanchard (2016)[2] that used those logs to analyze and quantify direct and indirect tropical cyclone fatalities in the U.S. These studies indicate that Katrina was responsible for a total of nearly 1400 combined direct and indirect fatalities. This includes 520 direct deaths — 341 in Louisiana, 172 in Mississippi, 6 in Florida, and 1 in Georgia. Rappaport and Blanchard (2016) indicate that there were 565 indirect fatalities, the majority of which (318) were related to cardiovascular causes. An additional 307 fatalities occurred where a cause of death was not identified (Rappaport and Blanchard 2016), therefore it is not known whether those deaths were direct or indirect. A summary of these findings from Rappaport (2014) and Rappaport and Blanchard (2016) indicate the following fatality information for Katrina:

Total number of fatalities: 1392
Direct deaths: 520
Indirect deaths: 565
Indeterminate cause: 307

Presumably, most of the deaths in Louisiana were caused by the widespread storm surge-induced flooding and its miserable aftermath in the New Orleans area. Louisiana also reports that persons of more than 60 years of age constituted the majority of the Katrina-related fatalities among its residents. The vast majority of the fatalities in Mississippi probably were directly caused by the storm surge in the three coastal counties. In Florida, three of the direct fatalities were caused by downed trees in Broward County, and the three others were due to drowning in Miami-Dade County. Two deaths were also reported in Georgia, with one directly caused by a tornado and the other occurring in a car accident indirectly related to the storm. Alabama reported two indirect fatalities in a car accident during the storm. Despite the fact that inland fresh water floods produced the majority of fatalities due to tropical cyclones during the past few

[1] Rappaport, E.N., 2014: Fatalities in the United States from Atlantic Tropical Cyclones: New Data and Interpretation. *Bull. Amer. Meteor. Soc.*, **95**, 341-346.
[2] Rappaport, E.N. and B.W. Blanchard 2016: Fatalities in the United States Indirectly Associated with Atlantic Tropical Cyclones. *Bull. Amer. Meteor. Soc.*, **97**, 1139-1148.

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Legal Sidebar

The Political Question Doctrine: Historical Background (Part 2)

June 14, 2022

This Legal Sidebar is the second in a six-part series that discusses the Supreme Court's political question doctrine, which instructs that federal courts should forbear from resolving questions when doing so would require the judiciary to make policy decisions, exercise discretion beyond its competency, or encroach on powers the Constitution vests in the legislative or executive branches. By limiting the range of cases federal courts can consider, the political question doctrine is intended to maintain the separation of powers and recognize the roles of the legislative and executive branches in interpreting the Constitution. Understanding the political question doctrine may assist Members of Congress in recognizing when actions of Congress or the executive branch would not be subject to judicial review. For additional background on this topic and citations to relevant sources, please see the Constitution of the United States, Analysis and Interpretation.

The political question doctrine has its origins in the foundational case for judicial review, *Marbury v. Madison*. *Marbury* involved a suit seeking to force Secretary of State James Madison to deliver a signed commission to a newly appointed official, William Marbury. The commission had been signed by the previous Administration but not delivered. Following the change in presidential Administrations, Madison refused to deliver it. Among the issues presented in that case was whether the Court even had the authority to adjudicate the legality of Madison's refusal to deliver the commission. That question, according to Chief Justice Marshall's opinion for the Court, turned on "the nature" of the government action in question. As the Court explained, "Questions, in their nature political, or which are, by the constitution and laws, submitted to the executive, can never be made in this court." Thus, if the act of an official is one in which the "executive possesses a constitutional or legal discretion, nothing can be more perfectly clear that their acts are only politically examinable." However, if a "specific duty is assigned by law, and individual rights depend on the performance of that duty," then injured individuals have a right to resort to the courts. According to the Chief Justice, "[t]he power of nominating to the senate, and the power of appointing the person nominated" were political questions, and fundamentally unreviewable. By contrast, "if, for example, Mr. Marbury had taken the oaths of a magistrate, and proceeded to act as one; in consequence of which a suit had been instituted against him, in which his defense had depended on his being a magistrate, the validity of his appointment must have been determined by judicial authority." Ultimately, the Court concluded that the question of whether to deliver Marbury's commission was not a political one, as Marbury had a legal right in the appointment.

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FACT SHEET

EPA'S ENDANGERMENT FINDING:

THE LEGAL AND SCIENTIFIC FOUNDATION FOR CLIMATE ACTION

In 2009, the U.S. Environmental Protection Agency (EPA) issued its science-based finding that the buildup of heat-trapping greenhouse gases in the atmosphere endangers public health and welfare. The "Endangerment Finding" reflects the overwhelming scientific evidence on the causes and impacts of climate change. It was made after a thorough rulemaking process considering thousands of public comments, and was upheld by the federal courts.

The Endangerment Finding requires the EPA to take action under the Clean Air Act to curb emissions of carbon dioxide, methane, and four other heat-trapping air pollutants from vehicles, power plants, and other industries. The EPA's Endangerment Finding followed the Supreme Court's landmark 2007 decision in *Massachusetts v. EPA* holding that greenhouse gases are air pollutants covered by the Clean Air Act. This law, the Court held, obligates the EPA to curb pollutants that endanger public health and welfare, including by contributing to climate change.

BASIS IN LAW

More than fifty years ago, President Lyndon B. Johnson asked Congress for legislation to control air pollution, including heat-trapping greenhouse gas emissions. In a special message to Congress, President Johnson cautioned that "[a]ir pollution is no longer confined to isolated places. This generation has altered the composition of the atmosphere on a global scale through radioactive materials and a steady increase in carbon dioxide from the burning of fossil fuels."[1]

In this message, President Johnson recommended that "the Clean Air Act should be improved to permit [the EPA's predecessor agency] to investigate potential air pollution problems before pollution happens, rather than having to wait until the damage occurs, as is now the case, and to make recommendations leading to the prevention of such pollution."[2] The modern Clean Air Act, signed in 1970 by President Nixon, and amended in 1977 and 1990, includes broad, forward-looking language authorizing the EPA Administrator to regulate "air pollution which may reasonably be anticipated to endanger public health or welfare."[3]

In the subsequent decades, scientific evidence of the dangers caused by increasing concentrations of greenhouse gases in the atmosphere continued to accumulate. In 2003, the EPA denied a petition for regulation of greenhouse gases emitted from motor vehicles, claiming that these gases were not "air pollutants" under the Clean Air Act.[4] States, municipalities, and environmental groups challenged the EPA's decision, and prevailed in the landmark 2007 Supreme Court ruling in *Massachusetts v. EPA*. The Supreme Court determined that emissions of greenhouse gases are air pollutants subject to regulation under the Clean Air Act.[5]

In *Massachusetts*, the Supreme Court found that "greenhouse gases fit well within the Clean Air Act's capacious definition of 'air pollutant,'"[6] and noted that the Act defines "welfare" similarly broadly to include effects on weather and climate.[7] The Court observed that "[w]hile the Congresses that drafted [Clean Air Act Section] 202(a)(1) might not have appreciated the possibility that burning fossil fuels could lead to global warming, they did understand that without regulatory flexibility, changing circumstances and scientific developments would soon render the Clean Air Act obsolete. The broad language of 202(a)(1) reflects an intentional effort to confer the flexibility necessary to forestall such obsolescence."[8] The Supreme Court found that the "clear statutory command" of Clean Air Act Section 202(a)(1) requires the EPA to make a scientific judgment as to "whether greenhouse gas emissions contribute to climate change."[9]

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Pursuant to the *Massachusetts v. EPA* decision, in 2009 the EPA conducted a thorough examination of the scientific evidence of climate change and considered thousands of public comments. The agency made the "Endangerment Finding" that greenhouse gases threaten the public health and welfare of Americans based on the overwhelming scientific consensus reached by decades of peer-reviewed research.[10] The 2009 rulemaking also included the "Cause or Contribute" determination that greenhouse gas emissions from motor vehicles contribute to the dangerous atmospheric build-up of climate pollution. The two findings together provided the legal foundation for the EPA to issue greenhouse gas emission standards for vehicles in 2010 under Section 202 of the Clean Air Act.

The U.S. Court of Appeals for the D.C. Circuit upheld the EPA's determinations in 2012, finding that the "body of scientific evidence marshaled by the EPA in support of the Endangerment finding is substantial."[11] The Supreme Court declined to review that decision.

In 2015, the EPA issued standards limiting carbon pollution from new and existing fossil fuel-fired power plants under Section 111. The new source rule cited the 2009 Endangerment Finding and further scientific assessments, and included a finding that these power plants contribute significantly to the atmospheric greenhouse gas pollution that endangers public health and welfare.[12] The EPA made a similar finding in 2016 regarding oil and gas sector sources of methane, when issuing standards to regulate methane emissions from new oil and gas sources under Section 111.[13] In 2016, the EPA found that greenhouse gas emissions from aircraft engines contribute to dangerous climate-changing air pollution under Section 231.[14] This finding was based on the substantial scientific and technical evidence that supported the 2009 Endangerment Finding, and more recent additional evidence.

BASIS IN SCIENCE

The EPA's 2009 Endangerment Finding was based on extensive review of decades of scientific research and peer-reviewed assessment reports synthesizing thousands of individual climate science studies.[15] The Agency concluded based on the scientific evidence that "elevated concentrations of heat-trapping greenhouse gases are the root cause of recently observed climate change," and these changes are "very likely due to the observed increase in anthropogenic greenhouse gas concentrations."[16] The EPA considered the current and future effects of climate change, and found that climate-changing pollution endangers public health for current and future generations.[17] The public health effects supporting this determination include:

- **Direct temperature effects:** Extremely hot days and heat waves are becoming more frequent, and are projected to intensify. Heat causes the most weather-related deaths in the United States, and projected warming is expected to increase heat-related mortality.
- **Air quality effects:** There is consistent evidence that climate change will increase ground-level ozone pollution (smog), which causes respiratory illnesses and aggravates asthma.
- **Extreme weather events:** Heavy precipitation events and severe storms are expected to become more frequent and intense. The resulting flooding and storm surge will put more people at risk of death or injury and increase risks of infectious diseases.
- **Disease and allergen effects:** Warmer temperatures are likely to increase the spread of food- and water-borne illnesses and insect-borne diseases. Climate change may also affect the prevalence and severity of allergy symptoms by increasing pollen and altering the distribution of aeroallergens and the plants that produce them.

The EPA also concluded that greenhouse gas pollution endangers the public welfare.[18] The environmental and welfare effects supporting this determination include:

- **Food production, agriculture, and forestry:** Although increased carbon dioxide concentrations may benefit certain crops, the body of evidence suggests that climate change impacts—including increased temperatures, changing precipitation patterns, and extreme weather events—will cause net adverse effects on U.S. agriculture. Climate change has already endangered U.S. forestry by increasing the size and frequency of wildfires, insect outbreaks, and tree mortality, and will continue to contribute to these effects.
- **Water resources:** Climate change is reducing snowpack and precipitation, which threatens the adequacy of water supplies across large areas of the United States. Rising water temperatures and more frequent flood events exacerbate water pollution, increasing risks to public health and ecosystems.
- **Sea level rise:** The sea level along much of the U.S. coast is rising, and the rate of change is expected to increase. Sea level rise increases the risk of storm surge and flooding and causes erosion and loss of wetlands, threatening coastal communities.

- **Energy and infrastructure:** Climate change is expected to affect energy demand for heating and cooling, and adversely impact energy production, which relies on water for cooling capacity and hydropower generation. U.S. infrastructure—including energy transmission, water infrastructure, roads, bridges, airports, and homes—is vulnerable to extreme weather events, permafrost melt, sea level rise, and coastal erosion associated with climate change.
- **Ecosystems and wildlife:** Climate change is already affecting natural environments by causing changes in plant life cycles and shifting the habitat ranges and migration patterns of animals. These changes will fundamentally alter U.S. ecosystems and have negative consequences for biodiversity and the ecosystem goods and services on which current and future generations depend.

Since 2009, additional scientific evidence has continued to improve our understanding of climate systems, and has reinforced the EPA's conclusion that greenhouse gas emissions pose a grave danger to current and future generations.[19]

AMERICANS BENEFIT—HEALTH, CONSUMER SAVINGS, ENVIRONMENT

The Endangerment Finding authorizes the EPA to regulate greenhouse gas emissions from the nation's largest sources. These regulations provide enormous benefits:

- The EPA's emissions standards for passenger cars and trucks sold in model years 2012-2025 are expected to cut 6 billion metric tons of greenhouse gases over the lifetimes of the vehicles, save more than $1.7 trillion in fuel costs, and reduce oil consumption by more than 2 million barrels per day in 2025.[20]
- The first phase of the EPA's standards for commercial trucks and buses manufactured in model years 2014-2018 are projected to reduce carbon pollution by about 270 million metric tons and save about 530 million barrels of oil over the life of vehicles, generating $49 billion in net program benefits and $50 billion in fuel savings for vehicle owners. The second phase standards for model years 2021-2027 are expected to reduce carbon dioxide emissions by 1.1 billion metric tons and lower oil consumption by up to two billion barrels over the lifetime of the vehicles, saving vehicle owners fuel costs of about $170 billion.[21]
- Aircraft—for which the EPA made a separate endangerment finding—are the largest remaining transportation-sector source of greenhouse gas emissions not yet subject to emissions standards. They contribute 12 percent of U.S. greenhouse gas emissions from the transportation sector, and 3 percent of all U.S. greenhouse gas emissions.[22]
- Carbon pollution standards for new fossil fuel-fired power plants and the Clean Power Plan guidelines for existing power plants will help clean up our air by reducing unhealthy particulate matter, sulfur dioxide, and nitrogen oxides that contribute to soot and smog.[23] As a result, the Clean Power Plan could prevent up to 3,600 premature deaths, 1,700 heart attacks, 90,000 asthma attacks, and 300,000 missed workdays and schooldays each year. The Clean Power Plan is projected to yield up to $20 billion in climate benefits, plus public health benefits of $14 to $34 billion each year. These massive benefits outweigh the Plan's total projected cost of compliance of $5 to $8 billion per year.
- The EPA's methane emission standards for the oil and gas industry are projected to reduce 510,000 short tons of methane in 2025, equivalent to reducing 11 million metric tons of carbon dioxide, yielding net climate benefits of approximately $170 million in 2025. The standards will also reduce other pollutants, including approximately 210,000 tons of VOCs and 3,900 tons of air toxics in 2025, which will alleviate health effects related to fine particle pollution, smog, and air toxics and improve visibility.[24]

BROAD PUBLIC SUPPORT

Now, some are encouraging the Trump administration to withdraw the Endangerment Finding and roll back the climate protections it requires. But not only would rescinding the Endangerment Finding require disavowal of the massive foundation of peer reviewed science on which the finding was based, it would also be against the will of the American public.

Polling has repeatedly shown that most Americans think that climate change is happening and consider it to be a serious problem.[25] A majority of Americans think that the United States should reduce its greenhouse gas emissions, and that our government should do more to address climate change.[26] Recent surveys show majorities of Trump voters support taxing and/or regulating climate pollution, upholding or strengthening current climate change policies, or requiring U.S. companies to reduce carbon pollution.[27]