



LIABILITY FOR CLIMATE CHANGE?

Experts' views on a potential emerging risk



CONTENTS

- 1 *FOREWORD*
- 2 *ATTRIBUTING EXTREME WEATHER
EVENTS: IMPLICATIONS FOR LIABILITY*
Myles R. Allen
- 6 *CLIMATE-CHANGE LITIGATION IN THE
UNITED STATES*
Kevin Haroff, Partner, Shook Hardy & Bacon LLP
- 9 *CLIMATE LIABILITY UNDER
THE OBAMA PRESIDENCY*
Richard Stewart
- 11 *KIVALINA V. EXXONMOBIL DISMISSED
BY FEDERAL TRIAL COURT*
William Stewart and Danielle Willard
- 14 *LEGAL ASPECTS OF US CLAIMS BASED
ON GREENHOUSE GAS EMISSIONS*
Prof. Dr. Ina Ebert
- 16 *PROFESSIONAL LIABILITY AND
GLOBAL WARMING CLAIMS*
Scott M. Seaman and John E. DeLascio
- 19 *CLIMATE-CHANGE LITIGATION:
AMERICAN PHENOMENON OR
GLOBAL TREND?*
Paulino Fajardo
- 22 *THE MUNICH RE VIEW ON
CLIMATE-CHANGE LITIGATION*
Dr. Guido Funke

FOREWORD

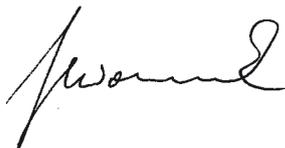


The role of human activity in global warming has been the subject of intense debate, yet it has now become widely accepted that mankind has contributed to climate change – and continues to do so. The precise nature and scope of the effects of this development cannot be determined at this point, but there can be little doubt that it represents one of the biggest challenges the world faces.

From a risk perspective, climate change is highly complex and multifaceted. Munich Re, with its long history of applying its knowledge to understand and manage risks, has closely monitored global warming and its repercussions. As early as 1973, Munich Re became one of the first corporate entities to take the initiative and draw attention to the phenomenon.

One of the recent issues to emerge in this context is the role of liability – as discussed in a 2008 edition of our risk-monitoring magazine *Topics*. This publication goes a step further: to offer insight into the rapidly evolving topic of climate-related liability and to encourage lively discussion, we have asked a number of leading international experts to contribute their knowledge and views. Their articles look at the role of professional indemnity, as well as the risk of liability claims based on damage allegedly resulting from CO₂ emissions caused by industry, for example, on the lines of class-action suits against tobacco producers or companies processing asbestos. Along with consideration of the exposure of corporate decision-makers, and other professionals, to litigation for failure to disclose and take account of the physical and economic risks deriving from climate change and associated societal developments, you will find updates on the latest court rulings relevant to climate-related liability.

With the – at times diverging – opinions contained in the following pages, we hope to present a realistic impression of the current status of the debate. I wish you pleasant and informative reading.

A handwritten signature in black ink, appearing to read 'Torsten Jeworrek', written in a cursive style.

Dr. Torsten Jeworrek
Member of Munich Re's Board of Management
and Chairman of the Reinsurance Committee



ATTRIBUTING EXTREME WEATHER EVENTS: IMPLICATIONS FOR LIABILITY

Most discussion of changes to the climate and their impacts focuses on inherently deterministic, albeit potentially irreversible long-term developments such as increased temperatures, rising sea levels and melting of glaciers and ice-caps. In contrast, the dominant impacts of climate change over the next few decades are likely to be due to changing risks of extreme weather events. While these events themselves are unpredictable on timescales longer than a few days to months (depending on the event type), they must be understood as a stochastic response to a deterministic process (changing atmospheric composition).

*Author:
Myles R. Allen, July, 2009*

The question still frequently asked is whether it is possible to “blame” a specific extreme weather event on human influence. Many scientists are still quoted as saying this is impossible in principle as long as the event in question might have occurred in a climate free of human influence. This is misleading, since causal attribution clearly extends to factors that increase the risk of an event, but do not make that event inevitable. There is a clear need to clarify the appropriate language and concepts to be used in communicating how human influence impacts on extreme weather risk (Stott et al., 2009).

Allen (2003) proposed a framework for attributing extreme weather events to external influences on climate based on the concept of Fraction Attributable Risk, derived from standard practices in epidemiology and seasonal forecasting. The first practical implementation of this framework was the Stott et al. (2004) study of the role of human influence in the European heat wave of the summer of 2003, illustrated in the figures below.

Figure 1 shows a thermal image of temperatures averaged over the first two weeks of August in 2003 relative to the average of the corresponding period in the other years in the period 2000–2004. Sustained temperature anomalies of over 10°C in central France, northern Switzerland and southern Germany were unprecedented in the historical record (Schär et al., 2004) and caused up to 70,000 premature deaths (Robine et al., 2007) and over US\$ 10bn in losses to agriculture and forestry (Schär and Jendritzky, 2004).

Figure 2 shows an assessment of the role of human-induced climate change in the risk of recurrence of such weather anomalies as the summer 2003 European heatwave (Stott et al., 2004). The thick black diagonal line shows a model-based estimate of the frequency of southern European summer temperature anomalies comparable to the 2003 event, suggesting that temperatures are 1.6°C above the 1961–90 average roughly once a century. The thick grey line shows estimated return periods under the conditions that would have pertained in 2003 in the absence of human influence on climate, with the dotted lines showing an estimate of uncertainty in both. The fact that the black lines are clearly to the left of the grey lines – even allowing for uncertainty – shows that we have a high degree of confidence that human influence on climate substantially increased the risk of the 2003 heatwave.

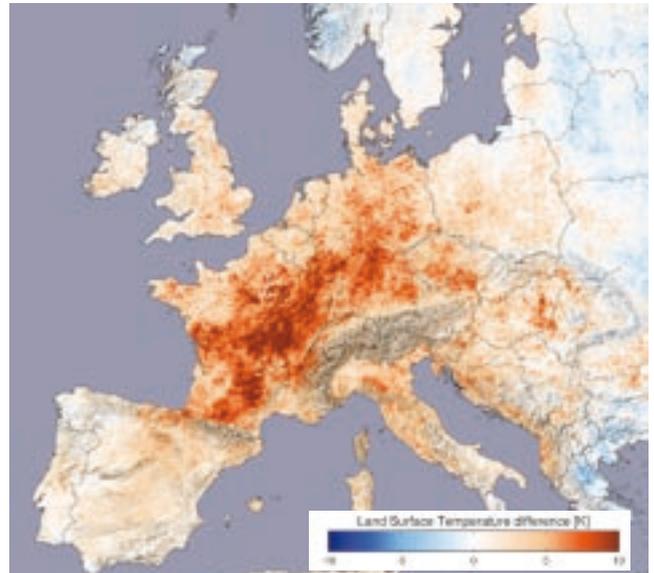


Figure 1: Mean temperatures in the first two weeks of August 2003 relative to the average of the same period in the years 2000, 2001, 2002 and 2004 showing the magnitude of the 2003 summer heat-wave (Figure courtesy of Reto Stockli, ETH Zurich and the NASA MODIS project, reproduced in Allen and Lord, 2004).

The scientific evidence for human influence in specific damaging weather events is evolving in such a way that the issue of liability is almost certain to arise further in the near future.

Observed temperatures during 2003 were 2.3°C above the 1961–90 average, which this model would suggest was a multi-thousand-year return-time event, but this figure is likely to be misleading for two reasons: most importantly, the model in question does not represent the land-atmosphere interactions that are likely to play a role in amplifying summer temperature anomalies (Fisher et al., 2007); secondly, for low-probability events, defining the threshold in terms of what actually occurred can introduce a bias into estimated return times (sometimes known as the “prosecutor’s fallacy”). It is notable, however, that the relative risk is independent of the threshold (the lighter and dark lines are parallel): this illustrates that uncertainty in the absolute magnitude of extreme weather risk, although clearly a problem for the insurance industry, does not necessarily preclude statements about how relative risks are changing or responding to external drivers.

Claims for actual damage associated with climate change are likely to involve this kind of evidence, in which damage is attributed to extreme weather events. Even cases where harm is alleged to have been caused by predictable aspects of climate change, such as coastal erosion from sea level rise, will need to address this issue, since actual erosion typically occurs episodically during severe storms. Some important scientific points relevant to climate-change liability are:

Statements must be framed in terms of counterfactual probabilities: how would weather risks have been different if human influence had not occurred?

These counterfactuals can only be explored “in silico”: we have no direct observations of a pristine climate free of human influence, so for liability to become an issue, courts would have to accept this kind of evidence based on computer simulation with imperfect models (Allen and Lord, 2004).

If such evidence is accepted, the role of human influence in some weather events likely already exceeds the threshold at which liability might apply. Grossman (2003) suggests that this is often regarded as an increase in risk due to the factor in question of around a factor of two: the role of human influence in the 2003 heatwave far exceeded this threshold.

Potential claimants face, however, very substantial challenges: in addition to the solid scientific evidence required, non-scientific points of principle regarding the kind of evidence that is admissible and where liability lies must be established.

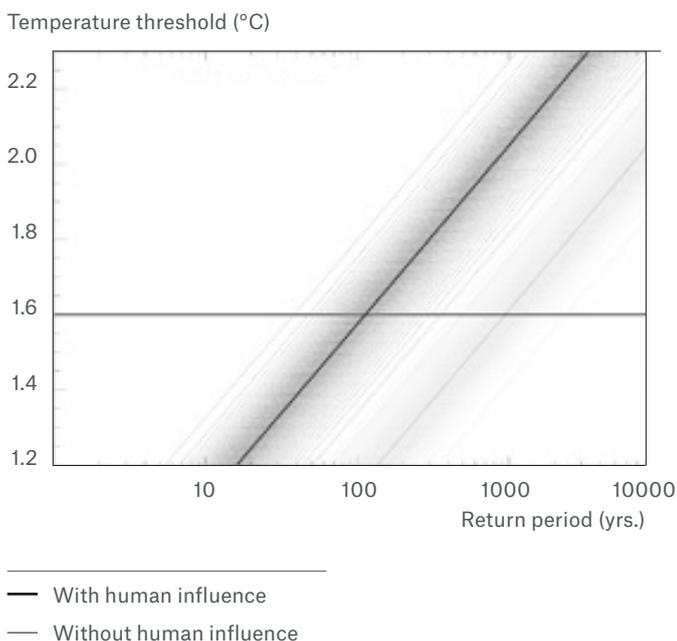


Figure 2: Change in risk of southern European summer temperature anomalies exceeding a range of temperature thresholds above the 1961–90 average. The thick line labelled “With human influence” shows the best estimate of the risk under present-day conditions, with dotted lines showing the range of uncertainty in these return periods. A return period of 100 years implies there is a one-in-100 probability of temperatures exceeding that threshold in any given year. The 1.6°C threshold exceeded in 2003 was the previous hottest mean summer temperature (2001). The thick line labelled “Without human influence” shows the best estimate of the risk under conditions similar to the present day except with human influence (the impact of increased GHG levels and sulfate aerosols) removed, with dotted lines showing the range of uncertainty (from Allen et al., 2007, updated from Stott et al., 2004).

Studies like Stott et al. (2004) are likely to become routine, as the demand increases for objective assessments of damage attributable to climate change (Prather et al., 2009; Stott et al., 2009). Routine assessments would significantly strengthen evidence by offsetting the issue of the prosecutor's fallacy to some extent.

Even if a causal link were accepted between human influence on climate and a specific damaging weather event, any potential plaintiff would still have the challenge of identifying potential defendants from the very large number of agents contributing to the problem. A recent result that may simplify this part of the problem is the finding that the impacts of carbon dioxide accumulate, such that a tonne of carbon released 50 years ago has much the same impact on weather risk this year as does a tonne of carbon released five years ago (Allen et al., 2009). This is an important point in principle, considering that if courts were to allow that sale of greenhouse gas precursors (such as fossil fuels) carried liability, then the number of potential defendants making a substantial contribution would fall significantly.

In summary, the scientific evidence for human influence in specific damaging weather events is evolving in such a way that the issue of liability is almost certain to figure more prominently in the near future. Potential claimants face, however, very substantial challenges: in addition to the solid scientific evidence required, non-scientific points of principle regarding the kind of evidence that is admissible, and where liability lies must also be established.

Dr. Myles Allen is head of the Climate Dynamics Group in the Department of Physics, University of Oxford. His research focuses on how human and natural influences on climate contribute to observed climate change and risks of extreme weather and on quantifying their implications for long-range climate forecasts.

Allen, M. R. (2003), Liability for Climate Change, *Nature*, 421: 891-892.

Allen, M. R. & R. Lord (2004), The Blame Game, *Nature*, 432: 551-552.

M. R. Allen et al. (2000), Quantifying the uncertainty in forecasts of anthropogenic climate change, *Nature*, 407: 617-620.

Allen, M. R. et al. (2007), Scientific challenges in the attribution of harm to human influence on climate, *Pennsylvania Law Review*, 155: 1353-1400.

Allen, M. R. et al. (2009), Warming caused by cumulative emissions of carbon dioxide towards the trillionth tonne, *Nature*, 458: 1163-1168.

Fischer E., S.I. Seneviratne, D. Lüthi, and C. Schär (2007), The contribution of land-atmosphere coupling to recent European summer heatwaves, *Geophys. Res. Lett.*, 34, L06707, doi: 10.1029/2006GL029068.

Grossman, D. (2003) Warming up to a not-so-radical idea: tort-based climate change litigation, *Columbia Journal of Environmental Law*, 28.1: 1.

Prather, M. J., et al. (2009), Tracking uncertainties in the causal chain from human activities to climate, *Geophys. Res. Lett.*, 36, L05707, doi: 10.1029/2008GL036474.

Robine, J.-M. et al. (2007) Report on excess mortality in Europe during summer 2003 (EU Community Action Programme for Public Health, Grant Agreement 2005114)

Schär, C. and G. Jendritzky (2004), Hot news from summer 2003: *Nature*, 432:559-560

Stott, P. A., D. A. Stone and M. R. Allen (2004), Human contribution to the European heatwave of 2003, *Nature*, 432: 610-614.

Stott, P. A. et al. (2009): First meeting of the international group on Attribution of Climate-related Events (ACE), NCAR, Boulder, CO. *Eos*, 90: 21.



CLIMATE-CHANGE LITIGATION IN THE UNITED STATES

Are climate change lawsuits likely to be the next big thing in the evolution of US mass tort litigation? Maybe. Scientific knowledge about the causes and consequences of climate change has grown in the last few years, making it easier to present a more credible factual case supporting damages claims. However, plaintiffs will need to overcome significant problems before the floodgate for mass litigation will really be open.

Author:
Kevin Haroff

To date, climate change cases typically fall into one of two categories: (1) lawsuits against public authorities (and companies) seeking injunctive relief to force the adoption of regulations or block government approvals of development projects; and (2) lawsuits asserting claims for personal injury, property damage, or pure economic damages allegedly caused by climate change. The first category includes cases brought by governmental agencies and non-governmental organisations (NGOs) to force the application of existing regulatory schemes to address climate change. The most notable is *Massachusetts v. EPA*, 127 S. Ct. 1438 (2007), which was filed by state and local governments and private organisations to require the US Environmental Protection Agency (EPA) to regulate carbon dioxide emissions under the federal Clean Air Act. The US Supreme Court ruled in 2007 that EPA had the authority to issue regulations, and EPA has issued a proposed "endangerment" finding to allow it to exercise that authority.

The second category includes cases brought by government agencies and private parties against companies (including automobile manufacturers, electric power utilities, and oil and gas companies) alleged to contribute significantly to climate change. In *California v. General Motors*, 2007 WL 2726871 (N.D. Cal. 17 Sept. 2007), plaintiffs sought monetary damages from major car companies on the grounds that they contribute to global warming and related impacts on the state's natural resources. In *Connecticut v. American Electric Power*, 406 F. Supp. 2d 265 (S.D. N.Y. 2005), state governments and non-profit land trusts sued electric utilities to abate the "public nuisance" of global warming, which they maintain will cause irreparable harm to property and threaten health, safety and the environment. In *Comer v. Murphy Oil USA, Inc.*, No. 1:05-CV-436 (S.D. Miss. 2006), plaintiffs sued a range of corporate defendants, claiming personal injury, property damages and other financial loss caused by the allegedly climate-change-induced impacts of Hurricane Katrina. Recent decisions by two US appellate courts have held that both the AEP case and the Comer class action case can proceed.

Scientific knowledge about the causes and consequences of climate change has grown in the last few years, making it easier to present a more credible factual case supporting damages claims.

Different plaintiffs, different objectives

Plaintiffs have various motives for bringing climate-change-related lawsuits. State governments typically are represented by state attorneys general who may be seeking to achieve political or policy objectives through litigation. For example, California's current Attorney General, Edmund G. (Jerry) Brown, is expected to run for the California governor's seat in 2010, and climate change figures prominently on his campaign agenda. In addition to pursuing public nuisance litigation against power utilities and automobile companies, the Attorney General sued the County of San Bernardino over its alleged failure to address global warming as part of its land use planning process. The Attorney General has also used the threat of litigation to reach settlements with other public entities and private companies to implement wide-ranging mitigation measures for climate change.

NGOs, such as the Sierra Club and Friends of the Earth, generally get involved in climate change cases to pursue the interests of their membership in changing public policy and blocking development projects with perceived climate change impacts. NGOs typically seek prospective or injunctive relief, rather than damages for current or past climate change impacts. Damages cases have been brought, however, by individuals (through class action claims in state court) and community organisations on their own account. The Comer case, noted above, was brought by fourteen individuals representing a putative class of Mississippi property owners. In *Village of Kivalina v. ExxonMobil Corp.*, 08-CV-1138 (N.D. Cal. Feb. 2008), a native Alaskan group brought an action against oil and gas companies and US power utilities, claiming that coastal erosion caused by global warming would require relocation of their fishing community at a cost in excess of US\$ 100m. The Kivalina case was dismissed on 30 September 2009, but is now proceeding to the Ninth Circuit Court of Appeals.

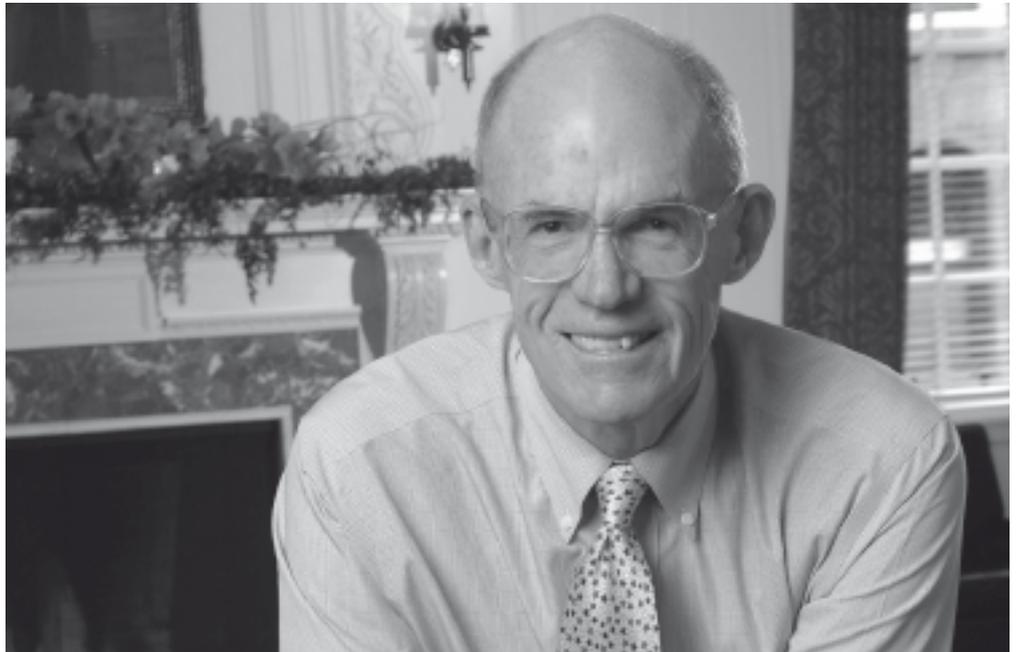
“A gigantic litigation problem for corporations”

For the most part, climate change lawsuits have been organised much like other cases filed under federal environmental statutes, and they have been largely financed by budgeted government resources and private NGO fund-raising efforts. The Comer and Kivalina cases, on the other hand, more closely follow a mass tort litigation model, along the lines of past tobacco and asbestos cases. These cases are typically brought by private law firms and financed through past recovery and expectations of large contingency fees. The number of law firms supporting plaintiffs in the Kivalina case clearly demonstrates this. The lawsuit was nominally brought by an NGO based in San Francisco; however, six law firms are also involved, all with established reputations for bringing tort and class action contingency-fee cases on behalf of individuals and private plaintiff groups.

Plaintiffs’ lawyers are quite explicit about using a mass-tort and contingency-fee model for future climate change cases. One lawyer representing plaintiffs in the Comer case, for example, was quoted recently as saying: “What’s good about the approach ... is that [it] demonstrates that one case can cause a gigantic litigation problem for corporations. It’s pretty much accepted history that asbestos and tobacco are the role models for climate change litigation right now.” To date, mass tort claims for climate change damages have had difficulty moving beyond initial motions to dismiss based on technical legal grounds (e.g. standing and justiciability). The courts may be waiting to see if federal and state legislatures take firm action to address climate change issues through new statutory laws (like the Waxman-Markey energy and climate change bill recently passed by the US House of Representatives). If clear action is not taken soon, courts may be willing to open the door to private litigation claims that could cost corporate defendants many millions – if not billions – of dollars.

If clear action is not taken soon, courts may be more willing to open the door to private litigation claims that could cost corporate defendants many millions – if not billions – of dollars.

Kevin Haroff is partner with the Environmental Law and Tort Litigation Groups at the law firm of Shook Hardy & Bacon LLP in San Francisco. He represents insurance companies, manufacturers and governmental entities on a broad range of environmental liability matters, and he has developed a national reputation on climate change regulation. Chambers USA has recognised Kevin as one of the leading environmental lawyers in California.



CLIMATE LIABILITY UNDER THE OBAMA PRESIDENCY

*Interview with
Prof. Richard
Stewart, New York
University Law
School*

How would you define the risk that industrial companies like power suppliers, oil producers and car manufacturers will face massive claims for damages due to the CO₂ that they or their products generate?

I see the risk as very small. Plaintiffs seeking compensation for storm damage or flooding, for instance, linked to climate change face insurmountable problems in proving that the defendants caused their harm. First, it can be argued that such an event is attributable to weather fluctuations rather than long-term climate change. Second, climate change is connected to CO₂ and other greenhouse gases – GHG – emitted by a huge range of human activities, including deforestation and agriculture, throughout the world. These emissions mix together on a global scale, making it impossible to fix individual responsibility. Moreover, climate change is driven by current atmospheric GHG concentrations, which are due to emissions over decades. Sorting out issues of causal responsibility and apportioning liability fairly among millions or billions of emitters pose nearly insuperable problems. Because of the complexity of the issues, any case would be very expensive and take a long time to resolve.

Who is likely to bring climate damages cases and what do they hope to achieve?

Some climate damages cases have been brought by US state governments and environmental groups for political goals, to heighten public awareness of climate issues and threaten industry with liability in order to make it more willing to accept regulatory legislation. Suits by private plaintiffs are motivated primarily by the hope of recovering money.

What actions have been brought for climate damages in the US so far and what has been the result?

There have been five actions brought so far. None has yet proceeded to trial or resulted in recovery. Of two major suits brought by state governments, one was dismissed on “political questions” grounds – essentially that the issues are too complex and political in nature

for the courts to resolve, and therefore must be dealt with by the legislature and the government – but a federal court of appeals recently held in the other that it could proceed to trial. Even if it is not later pre-empted by congressional climate legislation and is eventually successful, this action by states for injunctive relief to require a small group of power plants to limit emissions will not set a strong precedent for private actions for damages against the myriad emitting sources.

US courts revolutionised environmental and product liability law to impose far-reaching liabilities on industry for toxic waste, asbestos, and tobacco. Could this jurisdiction be the role model for imposing similar liabilities for climate change?

Toxic waste liability cases involved highly localised harms or risks of harm from a specific waste site. The “mass tort” product liability cases involved harms caused to individuals by products manufactured by one company or a small group of firms in a given industry. Climate change, by contrast, involves contributions by huge numbers of actors across space and time and potentially affects everyone in the world. The burdens on the courts of trying to deal with such cases would be overwhelming. As mentioned, courts see this as a problem that the political branches of government will have to deal with.

What is the role of the US federal government and the states when dealing with liability issues in the climate change context?

In the US, actions for damages liability are generally governed by state common law. For the reason I just referred to, courts are very unlikely to use this law to impose climate liability. The states or the federal government could adopt legislation to impose climate damage liability on emitters, but are also unlikely to do so. Energy is the backbone of our economy. All of us use energy and share responsibility for CO₂ emissions. So legislatures will use regulation to limit future emissions rather than trying to impose liability for past conduct that, until recently, was considered perfectly proper.

What consequences does the recent US Supreme Court decision in *Massachusetts v. EPA*, requiring the federal government to regulate auto CO₂ emissions as a pollutant, have for climate damage liability?

By forcing the federal government to take regulatory action over the opposition of the Bush Administration, the Court has probably reduced the likelihood that courts will authorise climate damages actions. As the tobacco liability litigation illustrates, US courts sometimes adopt bold legal innovations to address major societal problems that the political branches have ignored. Now the government is finally beginning to act. Of course, by underlining that climate change is a serious problem, federal regulation might make courts more willing to entertain climate damages cases, but the factors against court initiative are far stronger.

What has been the impact of Obama’s election on US climate regulatory legislation and its consequences for climate damages litigation?

Obama, with the support of a Democratic Congress, has completely reversed Bush’s opposition to climate regulation. The US House of Representatives recently adopted sweeping climate legislation to establish a cap-and-trade system for limiting emissions that is substantially broader than the EU emissions trading system. The legislation must still pass the Senate, but the US will probably adopt some form of cap-and-trade system soon. This legislation will demonstrate that the political branches are dealing with the climate problem, making judicial intervention even less likely.

Are there any developments that might lead US courts to be more favourable to climate damages actions?

A massive weather event – a super-Katrina – that could be attributed to climate change might lead some state courts to authorise damages actions by victims against major industrial emissions sources.

What is the likelihood that countries dissatisfied with international climate politics will use damages litigation to stimulate stronger international action?

Such actions are a real possibility, for example by small island states threatened with extinction due to rising sea levels, but the difficulties of proof, the cost of litigation and the practical problem of recovering money from defendants outside the jurisdiction mean that such litigation will be largely symbolic and political.

Richard B. Stewart is University Professor and Director of the Center on Environmental and Land Use Law at New York University. He publishes widely on environmental law, international environmental law, administrative law and regulation.



KIVALINA V. EXXONMOBIL DISMISSED BY FEDERAL TRIAL COURT

On 30 September 2009, just nine days after a Federal Appellate Court ruled that private plaintiffs could pursue “climate change” nuisance claims against major greenhouse gas emitters¹, the Northern District of California’s decision in Native Village of Kivalina v. ExxonMobil², reached the opposite result. The district court dismissed the public nuisance lawsuit brought by the Alaskan village of Kivalina against twenty-four of the largest US power companies, which some industry observers called “the most dangerous litigation in America”.

Authors:

William Stewart and Danielle Willard

The court found that the plaintiffs lacked standing to bring these claims. The ruling was based on an inability to establish a sufficient causal link between their claimed injuries and defendants' conduct as well as on the view that these issues were barred from determination by the judiciary under the "political question doctrine". Considering that "virtually everyone on Earth, whether person, entity or industry that uses or consumes fossil fuels, bears responsibility on some level for contributing to the emissions allegedly harming Kivalina," the district court recognised that assigning the fault and cost of global warming is a matter best left to the elected branches of the US government.

The Inuit plaintiffs, from a small, primarily native village situated on a barrier reef, allege that their homeland peninsula is becoming uninhabitable due to a chain of events purportedly resulting in massive erosion damage and a disappearing coast line. The plaintiffs claimed that the greenhouse gas (GHG) pollutants emitted by the defendants have resulted in higher global temperatures, including warmer seas, which in turn has caused the sea ice that serves as a protective barrier to land erosion to develop later in the season and melt earlier. The plaintiffs' complaint sought to hold defendants jointly and severally liable under a federal common law claim of nuisance and for the cost of relocating the village, which plaintiffs estimate to be between US\$ 95m and US\$ 400m.

Perhaps equally important: the suit alleges that certain defendants "participated and/or continue to participate in an agreement with each other to mislead the public with respect to the science of global warming and to delay public awareness of the issue so that they could continue contributing to, maintaining and/or creating the nuisance". In this aspect specifically - the attempt to hold defendants jointly and severally liable for a coordinated

campaign to "mislead the public about the science of global warming" - the lawsuit seeks to break new ground. The district court did not, however, address the viability of this conspiracy count in its dismissal of the suit.

In granting defendants' motions to dismiss, the district court found that not only were plaintiff's claims barred by the political question doctrine, but also that plaintiffs lacked standing to bring these claims under Article III of the US Constitution. While recognising that no branch of the government has been vested with the power to make determinations regarding global warming, the court nonetheless found itself barred from "unduly intruding on policy choices and value judgments that are constitutionally committed to Congress". Imposing "liability and damages on a scale unlike any prior pollution case," the court said, is not something they were able to do in a rational, reasoned manner without an initial policy determination by the legislature on "what would have been an acceptable limit" on the level of GHG emissions to guide them.

The ruling was based on an inability to establish a sufficient causal link between their claimed injuries and defendants' conduct as well as on the view that these issues were barred from determination by the judiciary under the "political question doctrine".

¹ Connecticut v. AEP, No. 05-5104 (2d. Cir. 21 Sept. 2009). On 16 October 2009 the US Court of Appeals for the Fifth Circuit joined the Second Circuit, holding that residents and property owners of the State of Mississippi had standing to assert their public and private nuisance claims against oil, coal, and chemical company defendants for their contribution to climate change. Comer v. Murphy Oil, No. 07-60756 (5th Cir. 16 Oct. 2009). The Fifth Circuit found that plaintiffs' allegations that defendants, through production of environmentally harmful greenhouse gases, magnified adverse weather events and fostered the strengthening of Hurricane Katrina and the frequency and intensity in other storms in recent years, causing extensive destruction and damage to their property, did not present non-justiciable political questions.

² No. 08-1138 (N.D. Ca. 30 Sept. 2009).

In an unusual assault against the reasoning of the Second Circuit Court of Appeals in *Connecticut v. AEP*, the California Trial Court rejected the proposition that “well-settled principles of tort and public nuisance law provide appropriate guidance to the courts to deal with these issues”. As the district court stated, the Second Circuit’s decision was based on case law involving a discrete and identifiable number of polluters who caused specific injury to a geographically definable area, which is simply not the case with the issue of global warming. Where claims, like those presented by the Kivalina plaintiffs, are “based on the emission of greenhouse gases from innumerable sources located throughout the world and affecting the entire planet and its atmosphere”, assigning accountability is the responsibility of the legislature, not plaintiffs who arbitrarily select defendants.

Plaintiffs’ inability to trace their alleged injuries to any particular defendant led the court to conclude that plaintiffs lacked standing, and to reject their assertion that nuisance claimants were only required to show that defendants contributed to the injury. Such a theory is applicable only where “federal limits exist and a discharge exceeded those limits”. Even if plaintiffs’ contribution theory were applicable, the court found “no realistic possibility of tracing any particular alleged effect of global warming to any particular emissions by any specific person, entity, group”. As stated by the Northern District, “it is not plausible to state which emissions – emitted by whom and at what time in the last several centuries and at what place in the world – ‘caused’ plaintiffs’ alleged global warming related injuries”, and thus it would be “illogical to conclude that the mere contribution of greenhouse gases into the atmosphere is sufficient to establish that a plaintiff’s injury is fairly traceable to a defendant’s conduct”.

Like *Connecticut v. AEP* (Second Circuit) and *Comer v. Murphy Oil* (Fifth Circuit), the Kivalina case is going to the appeal court (Ninth Circuit). It now seems inevitable that the ongoing debate over whether or not climate change nuisance claims are viable will not reach a conclusion until the US Supreme Court and/or Congress weigh in.

Bill Stewart and Danielle Willard litigate complex coverage cases at the international law firm of Cozen O’Connor. Bill is the author of Climate of Uncertainty published by Ocean Publishing.

It now seems inevitable that the ongoing debate over whether or not climate change nuisance claims are viable will not reach a conclusion until the US Supreme Court and/or Congress weigh in.



LEGAL ASPECTS OF US CLAIMS BASED ON GREENHOUSE GAS EMISSIONS

Successfully claiming damages linked to GHG emissions is – and will remain – an uphill battle. From justiciability and causation to time-related issues, plaintiffs must manoeuvre through a minefield of legal issues before such cases have a chance in court. Climate change is a real and pressing problem, but liability law is not the right tool for tackling it.

Author:
Prof. Dr. Ina Ebert

US plaintiffs who want to base their damages claims merely on defendants having emitted greenhouse gas or manufactured products that emit greenhouse gas – and by doing so contributed to global warming – have to overcome many daunting legal hurdles. First of all, there is the question of justiciability: thus far, most US courts have decided that global warming is a political issue that has to be dealt with by governments and legislation, not by courts, and have consequently denied jurisdiction (e.g. *California v. General Motors*, *Kivalina v. Exxonmobil*). Only two courts recently came to a different conclusion (*Connecticut v. American Power and*, partly, *Comer v. Murphy Oil*). Another problem for potential plaintiffs is determining who has the legal standing to sue. Everyone contributes to some degree to climate change – not just car manufacturers, utility and oil companies in the highly industrialised countries, but also the developing industries in China and India, the meat industry in Latin America, companies responsible for deforestation in developing countries and anyone who travels by car or plane, to name just a few examples. However, owners of land close to the sea, inhabitants of small islands, Inuit (as in the pending *Kivalina* case), victims of natural catastrophes caused by climate change, climate-related interest groups and industries dependent on current weather conditions might try to convince courts that they are so much more affected than others by global warming and rising sea levels that they have a right to sue for damages. Whether this will be accepted by the courts remains to be seen. So far, among the few plaintiffs whose legal standing has been accepted by the US Supreme Court in climate litigation cases are US coastal states that are losing part of their territory to the rising sea level (in *Massachusetts v. EPA*).

But even if plaintiffs were to overcome these hurdles, their chances of success are slim. Most claims up to now have been based either on negligence or on public nuisance. Since a duty not to emit greenhouse gas usually does not exist, claiming negligence appears hopeless. In addition, it is difficult to claim public nuisance if the defendants did nothing more than “lawfully engage in their respective spheres of commerce” (from the verdict in *California v. General Motors*). The biggest problem of all, however, would be to prove causation: even if courts accept that climate change is happening and that part of it is man-made, this would not be enough to hold anyone liable for particular damage. Plaintiffs would have to prove that specific defendants caused specific damage. This is not yet possible and will not be possible in the foreseeable future. There are certain ways to work around attribution problems that have been accepted by US courts in other areas of litigation, but any approach that would overcome the causation issues connected with climate litigation would have to be so radical and far-reaching that it seems highly unlikely any court would ever be willing to go down that road.

Proof of causation is not enough

Causation is not the only problem awaiting plaintiffs with damages claims based on global warming. For example, there is the question of pre-emption: does compliance with federal regulation prevent liability? Then there is the problem of assessing damages in the global warming context: how should positive side effects of global warming and comparative negligence by the plaintiffs be taken into consideration? There are also time-related issues: since the damage we see now is caused by greenhouse gas emissions that happened many years ago, what impact do limitation periods have? Even if legislation were changed to make damages claims based on greenhouse gas emissions more likely to succeed, how would a plaintiff be able to prove that the damage he has suffered was caused by emissions occurring after this legislation?

For all these reasons, claims related to greenhouse gas emissions as such do not seem likely to succeed. The focus of climate change litigation will probably shift to claims based on non-compliance with regulations or professional duties – for instance, on failure to warn or inform; on conspiracy to mislead the public, legislation or the courts, e.g. by “greenwashing” business activities (false claims of climate-friendliness) or by promoting scientific reports denying global warming or its partly man-made origin against better knowledge; on the sale of products that are falsely or insufficiently labelled to indicate the greenhouse gas emissions they cause; on not sufficiently considering the consequences of global warming and rising sea levels in the construction business; or on non-compliance with other climate regulations the new US administration is expected to introduce in coming months or years.

Prof. Dr. Ina Ebert is an expert on liability law and emerging risks at Munich Re. Her specialist areas are mass litigation, personal injury and liability issues related to violations of personality rights and new technologies.

Any approach that would overcome the causation issues connected with climate litigation would have to be so radical and far-reaching that it seems highly unlikely any court would ever be willing to go down that road.



PROFESSIONAL LIABILITY AND GLOBAL WARMING CLAIMS

Determining the exposure to global-warming-related claims faced by officers, directors, lawyers, accountants, engineers and other professionals is a daunting task for a number of reasons. These include the enormity of the potential impacts of climate change, the lack of court decisions addressing climate-change-related liabilities and an uncertain regulatory environment marked by numerous pieces of pending legislation.

Authors:

Scott M. Seaman and John E. DeLascio

Plaintiffs and their legal representatives appear to be committed to pursuing corporate and professional defendants vigorously and under various liability theories, including negligence, strict liability, nuisance and intentional tort. Accordingly, insurers and reinsurers involved in the professional liability market are compelled to acquire a thorough understanding of the potential exposures associated with climate change. Only then can they meet the loss control and other service needs of clients, ensure underwriting excellence and respond adequately to requests for defence and indemnity from professional policyholders.

Among the obstacles claimants face are threshold justiciability issues (e.g. standing and the political question doctrine); difficulties in proving causation and establishing other prima facie elements of the respective causes of action; and the application of numerous affirmative defences. Regardless of whether or not an insurer is called upon to provide indemnity for judgments or settlements, defending policyholders in climate-change-related litigation could prove to be extremely expensive to professional liability insurers with a defence obligation.

Transparency aspects represent a further potential basis for litigation. Corporate officers, directors, and the professionals who advise them face heightened scrutiny and potential liabilities in connection with disclosure issues. For example, publicly-traded companies may have to contend with shareholder litigation arising out of alleged failures to comply with US Securities and Exchange Commission reporting requirements to identify known trends, events and uncertainties likely to have an impact on the company's assets, earnings or competitive position. The proliferation of shareholder resolutions relating to global warming and the strategies of activist investors are suggestive of potential future claims and litigation. Shareholder groups, including large institutional investors, along with environmental advocacy groups, are pressing publicly-traded companies hard for disclosure.

Regardless of whether or not an insurer is called upon to provide indemnity for judgments or settlements, defending policyholders in climate change-related litigation could prove to be extremely expensive to professional liability insurers with a defence obligation.

Governmental agencies and public officials have also entered the fray. New York State Attorney General Andrew M. Cuomo, for example, subpoenaed a number of large energy companies to investigate whether their investors were informed about the potential financial risks posed by coal-burning plants that release greenhouse gases. On 27 August 2008, a settlement agreement requiring a major national energy company to disclose the financial risks that climate change poses to its investors was announced. The requirements include an analysis of financial risks from climate change in the context of present and probable future regulations and legislation, climate-change-related litigation and the physical impacts of climate change.

Indeed, the disclosure obligations imposed on corporations are significant. Regulation S-K, Item 101 (c)(1)(xii) requires companies to disclose the current and anticipated "material effects" of compliance with environmental regulations. Appropriate disclosure also has to be made as to the material effects that compliance with federal, state, and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings, and competitive position of the registrant and its subsidiaries. The registrant has to disclose any material estimated capital expenditures for environmental control facilities for the remainder of its current fiscal year and its succeeding fiscal year and for such further periods as the registrant deems material. In addition, Item 303 requires companies to "describe all known trends or uncertainties that have had or that registrant reasonably expects will have a material favorable or unfavorable impact on the net sales revenue or income from continuing operations."

Climate-change risks are among the criteria many insurers are now using to evaluate exposures under D&O policies. These exposures include regulatory risks and the costs of compliance, non-disclosure of investment risks and reputational risks. Claims based on breach of statutory duties (e.g. federal and state securities laws), breach of fiduciary duties or mismanagement may be asserted against corporate officers and directors and, in turn, against the professionals advising them. For instance, claims of inadequate disclosure to security holders of the risks posed by the climate-change exposures may be asserted. Global-warming claims against companies by third parties also may give rise to shareholder litigation alleging a breach of the duty of care in managing the affairs of the corporation resulting in failure to avoid liability for global-warming-related claims.

Architects, engineers, builders and others involved in construction are also likely to be targeted for climate-change-related claims. Current pressures for “green building” status may expose these professionals to a host of new liabilities, especially in light of the Leadership in Energy and Environmental Design Green Building Rating System.

Moreover, the frequency and severity of traditional claims may increase substantially as a result of the phenomenon of climate change. Architects, engineers and builders may face claims of liability for failure to adequately account for allegedly climate-change-related events – e.g. more intense cyclones, storms, winds, rising sea and water levels, erosion, hurricanes, floods, cracking of soils and resulting shifting, settlement and subsidence – in designing, locating and constructing buildings. Lawyers, accountants and other advisors may face claims for failing to take into account the impacts of climate change in connection with the strategic advice, risk assessments, business appraisals and recommendations they provide.

Climate-change-related D&O and professional liability claims will present difficult coverage issues. For example, a D&O policy’s pollution exclusion is likely to serve as a significant coverage defence in many instances, but such exclusions will be subject to vigorous challenge by policyholders. Some D&O policies have pollution exclusions with carve-outs to the extent that the pollution claim is a shareholder claim. Intentional conduct exclusions will be implicated by many claims as will prior act exclusions. Other knowledge-based defences, such as lack of fortuity, non-disclosure and misrepresentation will be presented. Compliance with policy terms and, in particular, claims-made requirements will be an important consideration. Allocation and coordination of coverage issues also will figure prominently, particularly with the potential involvement of numerous defendants and multiple lines of coverage potentially implicated.

Liability related to climate change is an emerging issue that calls for close monitoring to respond to developments, legislation and legal precedents.

Liability related to climate change is an emerging issue that calls for close monitoring of developments, legislation and legal precedents. Along with the challenges, climate-change and related claims will also present opportunities for insurance companies and their professional policyholders in coming years. In this context, insurers can profit from the support of expert underwriters, actuaries, claims professionals and counsels experienced in the areas of environmental, toxic tort and construction defect claims.

Scott M. Seaman and John E. DeLascio are partners at the law firm of Meckler Bulger Tilson Marick & Pearson LLP. They represent insurers and reinsurers in connection with complex claims, cessions, coverage litigation, and reinsurance arbitrations on a national basis.



CLIMATE-CHANGE LITIGATION: AMERICAN PHENOMENON OR GLOBAL TREND?

*Interview:
Paulino Fajardo*

As the effects of climate change become more severe – and costly – will they open the door to wide-scale litigation? Initial legal actions have already been launched, mainly in the United States. Claimants are targeting companies and other entities perceived as contributing to greenhouse gas emissions, albeit with little success – so far. We spoke with Paulino Fajardo about this development, and whether it is a sign of things to come on a worldwide scale.

Around the world, claims based on damage allegedly resulting from CO₂ emissions are generally regarded as a US phenomenon. Would you agree, or do you think such claims will soon take on a global dimension?

In my view, these claims will become a global phenomenon, but not very soon. In Europe, I don't see them occurring on the same scale as in the US.

Paulino Fajardo heads law firm Davies Arnold Cooper's Insurance Group. He is a Spanish lawyer (ICAM), a solicitor before the High Court of England and Wales and an accredited mediator (CEDR).

Are companies in Europe less exposed to climate change-related claims?

There are very significant differences in procedural issues and litigation cultures. Jurisdictions differ widely; for example, with respect to the so-called loser-pays rule, class action regulations and punitive damages. But claims related indirectly to climate change against energy and/or construction companies involving professional indemnity and directors' and officers' – D&O – liability will emerge. In addition, many US environmental statutes contain citizen-suit provisions, which empower citizens to bring lawsuits either against polluters for violations of environmental regulations or against the authorities for failing to enforce environmental standards. European regulations do not contain such provisions, but it is possible for citizens to sue authorities for specific damage suffered due to failure in the duty of control. In any case, damage and causality must be proven and no strict liability applies prima facie. Although the 4th IPCC Report, released in 2007, established a relationship between greenhouse gas emissions and global warming, this scientific evidence does not allocate specific liabilities. The report did include an assessment of human influence on trends and projections of extreme weather in line with current scientific knowledge. But these estimates are intended as guidelines to enable governments and relevant industries to develop adequate risk management measures. Proof of causality thus remains a virtually insurmountable challenge for claimants seeking compensation for damage allegedly caused by GHG emissions.

Do you know of any pending climate-change-related law suits outside the USA?

As far as I know, the only climate-change-related claim in Europe to date is the action brought by Germanwatch, an organisation dedicated to sustainable development, and the environmentalist group BUND to force the German government to disclose the contribution to climate change made by projects supported by taxpayers through the country's export credit agency Euler Hermes.

What about cases involving international law?

We know of only one climate-change-related international law action to date. This was brought by the Chair of the Inuit Circumpolar Conference, which represents American and Canadian Inuit, before the Interamerican Commission on Human Rights and related to the effects of US GHG emissions on the environment of the Inuit community. The petition was rejected in 2006, no reason being given.

What type of climate-related claims do you expect to appear in courts outside the USA in future?

Generally, actions could result from product liability, negligence in the enforcement of general environmental regulations and D&O liability. Future claimants might include property owners who suffer damage or a loss in land value, and businesses like fishing companies and ski resort operators, whose resources are affected.

How about professional indemnity and state liability suits? Architects, states and other public entities all seem to be prone to damages claims in the event that they fail to consider consequences of climate change such as rising sea levels.

It is likely that claims of this type will occur. In practice, major environmental disasters could lead to professional liability claims. Claimants will have difficulty winning the ensuing legal battles, but significant legal costs will be incurred.

What trends in damages claims resulting from global warming will have a profound impact on business in the USA and on a global scale in the next few years? Could you share a scenario with us?

Companies in a number of industries, and their insurers, cannot realistically claim ignorance of their emission levels and environmental impact. Compliance with mandatory and self-regulatory restrictions may be a defence, but heightened political and media interest could mean companies will face litigation following the precedents of tobacco and asbestos claims. Insurers and reinsurers must consider the real possibility that their policyholders may face different types of liability claims related to global warming. Depending on the industry, the risk could be substantial, and insurers should carefully consider the extent to which they want to cover it. Suits against polluters are probably not the most effective response to the challenge of climate change, given the difficulty in proving that particular emissions have caused a specific loss. Developing alternative dispute resolution schemes and establishing funds for parties suffering proven damage should be top priorities. Especially considering the importance and scope of global climate change, I think cooperation is called for among industrial companies, policymakers and the science community.



THE MUNICH RE VIEW ON CLIMATE-CHANGE LITIGATION

The role of a reinsurance company often goes beyond pure risk transfer. By acting as a catalyst, a reinsurer can help address important and unresolved issues in society. As one of the biggest challenges facing mankind, climate change is an issue that deserves such attention.

Author:
Guido Funke

Damage due to climate change: An issue for politicians, not courts

At this point, climate change litigation is a US phenomenon and is unlikely to spread to other countries. There is very little probability that the special tort liability model aimed at securing compensation for direct losses due to climate change will succeed before the courts. And it is unlikely that statutory damages liability for greenhouse gas emitters will be passed under US legislation.¹

Climate change is a case for regulation rather than litigation. By far the largest share of greenhouse gas emissions can be traced back to consumer needs (food, transport, energy), making every member of society a “tortfeasor” and a potential claimant simultaneously. Costs arising as a result of climate change can be allocated through modern environmental policy concepts like emission trading, but not by tort law and liability insurance. These are not designed to handle the task of transferring collective costs on such a massive scale, an act that would equate to a form of taxation by the courts rather than the government.

Political dialogue is needed to determine permissible emission levels and how to allocate the consequential costs. Climate protection and the question of who should carry the costs of climate change are matters for politicians, not for compensation cases in civil courts. Accordingly, the direct consequences of climate change should not be covered by liability insurance.

Traditional litigation fostered by public awareness and regulation

At the same time, there are implications of the climate change debate that merit our attention. For example, losses not directly caused by climate change, but stemming from the political and regulatory activities that lead to increased standards of care for corporations, municipalities, directors and officers, and professionals like architects, lawyers, etc. Liability will be based, in part, on the degree to which the defendant has adhered to the ever-increasing number of climate change laws and regulations. This could result in successful claims in the event of violation of such laws and regulations. These cases are in principle no different from other liability claims and are a standard topic for liability insurance. As yet, such cases do not play a significant role in the insurance industry, but this might change, for example, with regard to construction litigation. In general, liability for damages related to the violation of climate change regulation in this context can be covered by the insurance industry, subject to specific terms and conditions and provided they are not systemic in nature.

Beyond climate-change litigation

Claims aimed at securing compensation for direct losses due to climate change are unlikely to succeed before the courts. Yet, the legal debate on climate change may inspire tort actions based on the emission of other environmental pollutants. Ultimately, claims can be expected to succeed in cases where health impairment, property or environmental damage derives from pollution that can be linked more clearly to a limited group of emitters. Such damages could include respiratory diseases allegedly caused by air pollution. They could involve water and soil contamination as well as air pollution, and affect large industrial sectors such as energy, automobile manufacture, chemicals, mining and food. While these issues are not new, increased public attention may in future result in more claims by adversely affected citizens. Here again, traditional liability insurance can cover such cases.

Climate change is high on our agenda, and it will remain so. While we do not expect to see successful liability claims based on the direct consequences of climate change, we will continue to closely follow the legal debate on the issue. Political and regulatory activities addressing environmental problems as well as increased public awareness – or outrage – could give rise to new loss scenarios. As a global risk carrier, Munich Re is committed to monitoring and responding to such developments and offering its clients appropriate support.

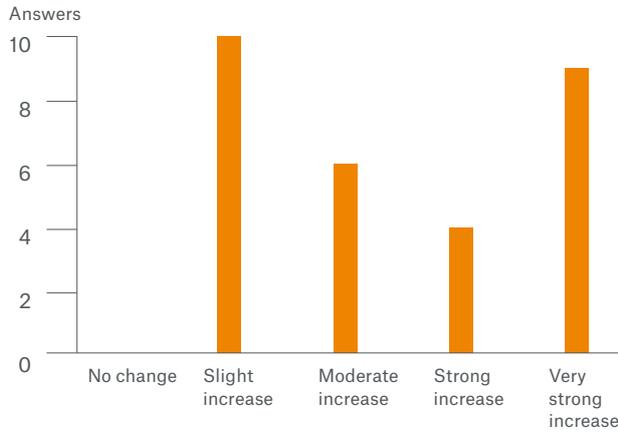
¹ See articles by Ina Ebert and Richard Stewart.

OCTOBER 2009 EXPERT SURVEY ON CLIMATE-CHANGE LITIGATION¹

¹ The survey on climate-change-related liability risk was conducted as an online poll by Germanwatch. A total of 32 respondents with expertise in the field of environmental and liability law participated in the poll. The survey is part of the research project entitled “Mainstreaming of climate risks and opportunities in the financial sector” (<http://www.climate-mainstreaming.net/project.htm>). The complete results of the survey are published at <http://www.climate-mainstreaming.net/litrisktp>.

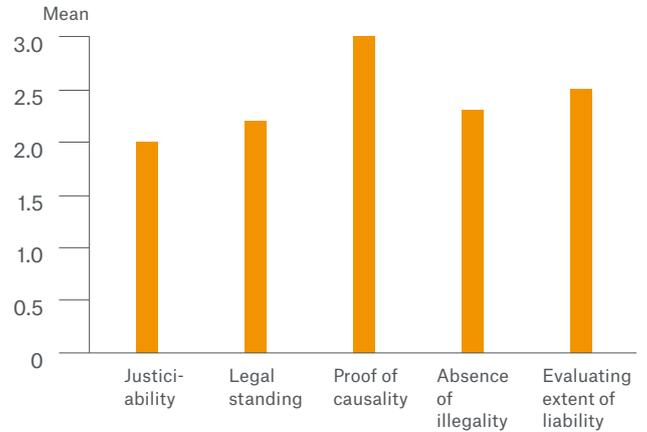
CLAIMS FOR DAMAGES DIRECTLY RELATED TO GHG EMISSIONS

Development of claims frequency up to 2020



Diverging expectations regarding the future frequency of claims.

Present hurdles for plaintiffs

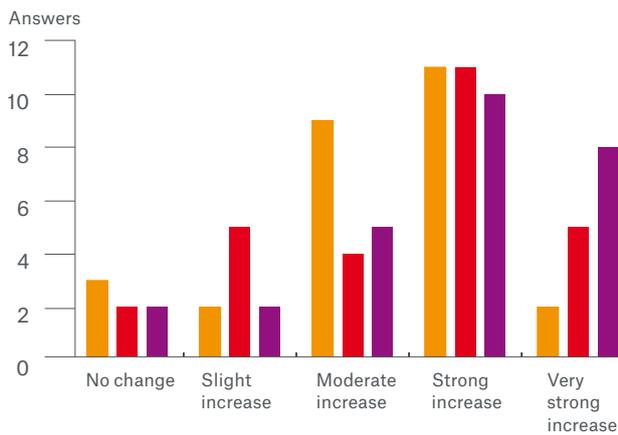


0 = No hurdle
 1 = Small hurdle
 2 = Medium-sized hurdle
 3 = Large hurdle
 4 = Very large hurdle

Proof of causality has been identified as the biggest hurdle for plaintiffs.

CLAIMS FOR DAMAGES INDIRECTLY RELATED TO CLIMATE CHANGE

Development of claims frequency up to 2020

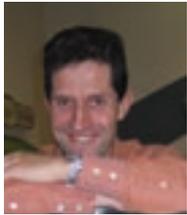


■ Duty to advise and indicate
■ Duty of care
■ Duty to inform and report

Most respondents expect a moderate to strong increase in claims for damages indirectly related to climate change. Damages claims based on the breach of the duty to inform and report are predicted to show the strongest increase.

EXPERTS FEATURED IN THIS PUBLICATION

Contact Munich Re:
CorporateClimateCentre@munichre.com



Dr. Myles Allen
Head of the Climate Dynamics
Group in the Department of
Physics at University of Oxford

allen@atm.ox.ac.uk



Kevin Haroff
Partner at the law firm of
Shook Hardy & Bacon LLP
in San Francisco, CA

kharoff@shb.com



John DeLascio
Partner at the law firm of Meckler
Bulger Tilson Marick & Pearson LLP
in Chicago, IL

john.delascio@mbtlaw.com



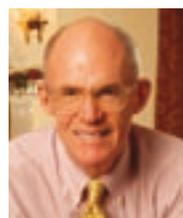
Scott Seaman
Partner at the law firm of
Meckler Bulger Tilson Marick
& Pearson LLP in Chicago, IL

scott.seaman@mbtlaw.com



Prof. Dr. Ina Ebert
Munich Re expert on liability
law and emerging risks

iebert@munichre.com



Prof. Richard Stewart
Director of the Center on
Environmental and Land Use
Law at New York University

stewartr@exchange.law.nyu.edu



Paulino Fajardo
Partner at the law firm of
DAVIES ARNOLD COOPER
in Madrid, Spain

pfajardo@dacsain.com



William Stewart
Co-Chair of the Climate Change
Practice at the law firm of Cozen
O'Connor

wstewart@cozen.com



Dr. Guido Funke
Munich Re Executive Manager
Corporate Underwriting
Casualty

gfunke@munichre.com

© 2010
Münchener Rückversicherungs-Gesellschaft
Königinstrasse 107, 80802 München, Germany

Order number 302-05493

