
CASE NOTE

The Liability of European States for Climate Change

RHJ Cox*

* Paulussen Advocaten NV, Maastricht, the Netherlands
r.cox@paulussen.nl

According to climate science and the 195 signatory States to the UN Climate Convention, every emission of anthropogenic greenhouse gases contributes to climate change. Furthermore, they hold that a two degree Celsius rise of Earth's average temperature is to be considered as a dangerous climate change to mankind and all of the world's ecosystems. Using the climate proceedings of Dutch citizens against the Dutch state as a starting point, the author of this case note explains why each European Member State's contribution to dangerous climate change as a result of inadequate emission reduction policies constitutes a tort of negligence against its citizens and poses a real threat for its citizens' effective enjoyment of human rights. The author argues that this makes individual European Nations severally liable for dangerous climate change and gives European citizens and non-governmental organisations the possibility to request their Nation State's competent court to compel the Nation's government to implement stricter emission reductions in accordance with what is deemed necessary to help avoid dangerous climate change and to protect their human rights.

Keywords: climate change; greenhouse gas emissions; tort of negligence; duty of care; liability; breach of statutory duty; causation; human rights; ECHR; ECtHR; IPCC; UN Climate Convention; Cancun Agreements; policy freedom; political question

Scientific findings are signalling that worldwide emissions of greenhouse gases must be cut down drastically if we are to prevent dangerous climate change. To date however, these crucial and drastic reductions are not happening anywhere in the world. Can individual European States be held liable for their contributions to this global issue? Dutch attorney Roger Cox thinks they can and wrote the book *Revolution Justified* to explain why.¹ His book provided the impetus for the first climate proceedings against a European Member State: the Netherlands. Also being legal counsel for the plaintiffs in these proceedings and in the midst of helping to set up similar proceedings in Belgium, Mr Cox was invited by this journal's editors to sketch some of the arguments invoked against the Dutch State and to shortly explain why similar arguments could be invoked by potential claimants in other European countries.

I. Introduction

On November 20, 2013 the Dutch Urgenda foundation² and 886 individual citizens (hereinafter jointly referred to as 'Urgenda et al') served a summons on the Dutch State in an action to hold the State liable for its role in causing dangerous global climate change.

Essentially, Urgenda et al state that man's excessive worldwide cumulative emissions of greenhouse gases (and chiefly the massive carbon emissions), are significantly changing the chemical composition of the planet's atmosphere, causing it to retain more heat and thereby warming the planet. According to the scientific evidence that is brought forward by Urgenda et al, the increasingly imminent consequence of these anthropogenic emissions is a form of climate change that will take place so rapidly that it endangers the planet's ecosystems, the human communities that are dependent on these ecosystems and thus ultimately

¹ RHJ Cox, *Revolution Justified – why only the law can save us now* (Planet Prosperity Foundation 2012).

² Stichting Urgenda is a foundation established on January 17, 2008 with the (statutory) aim of advancing and accelerating the processes needed for a transition to a sustainable society, focusing first on the Netherlands. Among its objectives is the reduction of CO₂. By virtue of this objective and pursuant to Section 305a of Book 3 of the Dutch Civil Code, the foundation claims competence to conduct a climate suit against the Dutch State in order to protect the collective interests that are at stake.

mankind itself. Urgenda et al claim that this so called 'dangerous anthropogenic interference' or in laymen's terms 'dangerous climate change', will cause serious and dangerous impacts on mankind and certainly also on the Dutch and their territory. Urgenda et al assert that this global behaviour and the Dutch contribution to it, poses a threat for, amongst others, the effective enjoyment of human rights as defined in the European Convention on Human Rights (ECHR), such as the right to life and the right to private and family life, both in the Netherlands and the rest of Europe.

In the 144 page long summons, Urgenda et al seek protection from the dangers of climate change. First of all, Urgenda et al seek a declaratory judgement from the court that by contributing to this dangerous situation and the threat it poses for the enjoyment of human rights, the State is acting unlawfully with respect to them and their collective interests if it fails to achieve a 40% or in any case 25% (minimum) reduction in the level of greenhouse gas emissions in the Netherlands by the year 2020 relative to the level in 1990. For industrialised Nations like the Netherlands and other European countries, rates within the 25-40% range have been established by the international community of government representatives under the 1992 United Nations (UN) Climate Convention, as the scale of reduction required by 2020 on the basis of climate science to secure any reasonable chance of preventing 'dangerous climate change.' As well as this declaratory ruling, Urgenda et al secondly ask the Court of The Hague (*rechtbank Den Haag*) to compel the State to act in accordance with the State's positive obligations and affirmative duties under the European Convention on Human Rights and to order the State by a mandatory order (a mandatory injunction) to take the actual measures needed to achieve the necessary and demanded emission reductions before 2020.

According to Urgenda et al, its claims are not only underpinned by scientific insights but have also been explicitly accepted and acknowledged, on the basis of those scientific insights by the 195 countries (including the European Union and its Member States) that are a party to the 1992 UN Climate Convention and its specific elaboration in the Cancun Agreements of 2010. In the Cancun Agreements these signatory countries explicitly acknowledge that an average temperature increase of more than 2 degrees Celsius on Earth - relative to the pre-industrial average global temperature of approximately 14 degrees - qualifies as 'dangerous anthropogenic interference' as referred to in the 1992 UN Climate Convention. In the Cancun Agreements the signatory countries also acknowledge that such an increase is a threat to humanity and could lead to the infringement of human rights in all countries and all regions of the world.

In adopting the Cancun Agreements and the two degree threshold, the signatory countries and the European Union defined the red line of what constitutes the maximum acceptable risk level for society in relation to the emission of greenhouse gases. Breaching the two degree threshold is now universally considered to be too dangerous for humanity and the ecosystems on which humanity is dependant. According to Urgenda et al, this now universally accepted definition of dangerous climate change has major direct and consequential implications for and ramifications on broadly accepted legal standards in Europe (and abroad) such as the standard of due care (the duty of care). Simply put, contributing to breaching the red line of two degrees is contributing to breaching a universally defined and accepted duty of care.

These ramifications of the Cancun Agreements will be relevant for courts in European countries faced with answering the question of whether and at what point carbon dioxide emissions of a country should be judged to be unlawful in view of the consequent dangers for its people and its territory and the consequent human rights infringement. As such, the Cancun Agreements affect legal systems around the world and also the Dutch legal system, more importantly the definition of the Dutch legal standard of due care as defined in Section 162 of Book 6 of the Dutch Civil Code.

Of course, the issue of causation and damage also plays a crucial role in how far the Dutch carbon dioxide emissions (or for that matter the emissions of any individual country) are responsible for the risk of dangerous climate change. This question of causation and damage in case of multiple tortfeasors is answered in more detail later in this article. However, for the purposes of this introduction, it suffices to note that Urgenda et al assign the State a several or proportional liability and corresponding duty of care, which is so that the State has a duty of care to help prevent dangerous climate change. It should do this by reducing the greenhouse gas emissions from its own territory to a degree that is necessary through taking into account the two-degree threshold of the Cancun Agreements and the derived necessary emission reductions of 25 to 40% before 2020 compared to 1990 levels.

Because the duty of care and the principle of several or proportionate liability as applied in Dutch law have the same or similar approaches in other European countries,³ as well as taking into account the Principles

³ Cees van Dam, *European Tort Law* (OUP 2013), 1108-1; AJ Akkermans, 'Veroorzaking van deelschade' (1992) 6043 *Weekblad voor privaatrecht, notariaat en registratie* 250.

of European Tort Law with respect to the duty of care and several liability in cases like this,⁴ Urgenda et al's approach could be of value for other such climate proceedings in Europe. This is all the more true because of the involvement of human rights under the ECHR and the jurisprudence of the European Court of Human Rights (ECtHR) that is invoked in these Dutch climate proceedings, through which other European States are also bound. This imposes an affirmative individual duty on States to take measures to safeguard human rights within its territory.

Urgenda et al also contend that there can be no justification for the State's breach of its statutory obligations to protect human rights, its infringement of basic (human) rights and its negligence and socially improper conduct towards Urgenda et al in general, because alternatives such as energy-efficiency and renewable energy are available to help avert the dangers of fossil energy use. They are also economically feasible.

This article takes a closer look at the abovementioned line of argumentation and concludes by examining the often raised question in the Dutch media of whether, in submitting these claims, Urgenda et al are effectively asking the court to usurp political jurisdiction.

II. The Prevention of a Dangerous Human Influence on the Climate: The Facts

The action to order the State to cut emissions by 40% or in any case at least 25% by 2020 is motivated by a single central objective to prevent a dangerous human influence on the climate. The scientific facts that Urgenda et al present in their summons substantiate this and are concerned with the cause, nature and scale of the climate problem and the associated harms, as well as with the way in which these harms could and should be averted to the greatest possible extent.

Urgenda et al's central premise is that the presence of (excessive) carbon dioxide emissions in the atmosphere changes its natural chemical balance and composition. They also assert that the atmosphere is consequently retaining heat longer and more effectively causing the Earth to warm and its climates to change and this is happening at a pace that far exceeds ecosystems' natural adaptive capacity. As Urgenda et al point out, these are all established facts.

The majority of the scientific evidence that Urgenda et al cite derives from the climate reports published by the International Panel on Climate Change (IPCC).⁵ The findings of the IPCC have been recognised by the 195 countries (and the European Union) that signed the 1992 UN Climate Convention and have been adopted (also by the Netherlands) as the premise for their climate policies. As such, these findings carry exceptional evidentiary weight in legal proceedings, particularly as the IPCC's reports are compiled through a worldwide process of hearing all arguments, with each draft report subject to two rounds of assessments, first by external scientists and then by the country signatories to the UN Climate Convention. This means that the entire gamut of scientific views are taken into account in the compilation of each IPCC report and evaluated on their merits before the definitive report is ratified by the joint assembly of Member States. Summarised below are a few of the facts established by the IPCC and invoked by Urgenda et al.

Science has established with 100% certainty that the Earth is warming. It has also established that the concentration of carbon dioxide (CO₂) in the atmosphere has increased sharply since the time of the Industrial Revolution and particularly during last 50 years due to human activities (most notably the burning of fossil fuels). Science has also established with 95% certainty that there is a correlation between these two scientific certainties and that global warming is in fact caused by these anthropogenic (man-made) greenhouse gas emissions.⁶ Moreover, science has established with 90% certainty that an increase in the Earth's average temperature by more than 2 degrees Celsius will have an adverse effect on all societies around the world.

⁴ European Group of Tort Law, *Principles of European Tort Law, Text and Commentary* (Springer 2005). See ch 3 (Causation) arts 3:102-3:106 and ch 4 (Liability Based on Fault) art 4:102.

⁵ Assessment Reports 4 and 5 of the International Panel on Climate Change, which operates under the supervision of the UN. Its work focuses on the analysis of peer-reviewed publications by thousands of scientists from around the world. See www.ipcc.ch/index.htm.

⁶ The 95% certainty concerning the causal link between man-made greenhouse gas emissions and climate change is greater than the certainty regarding the correlation between exposure to asbestos and mesothelioma cancer in 1969. Nonetheless, with effect from 1969, even this lower degree of scientific certainty regarding the consequences of exposure to asbestos was sufficient for employers to be held liable for providing their employees with inadequate protection against asbestos, both in the Netherlands (HR 17 February 2007, *LJN AU6927 (Heesbeen/Van Buuren)*) and in the United States (US Court of Appeals, Fifth Circuit, *Clarence Borel v Fibreboard Paper Products Corporation*, September 10, 1973, 493 F2d 1076). For a more detailed comparison, see Cox (n 1) 249 et seq.

The IPCC reports additionally state that it has been scientifically established with more than 90% certainty that atmospheric concentrations of CO₂ never exceeded 300 ppm (parts per million)⁷ at any time in the 650,000 years preceding the Industrial Revolution and further that this concentration hit a new high of 400 ppm in 2013. According to science, most of the effects of this unnaturally high carbon concentration will not actually become manifest and visible until the latter half of the 21st century as it takes 30 to 50 years from the time it is emitted into the atmosphere for carbon dioxide to achieve its full atmospheric and terrestrial warming impact.⁸

By extension, the effects observed in the world today, such as the melting of the North Pole, actually only represent the full warming impact of historical emissions up until around 1980, when the atmospheric concentration of CO₂ was 340 ppm. To date, these historic emissions have led to a warming of 0.8 degrees Celsius, already proving sufficiently powerful to cause the North Pole's summer ice cover to melt by 50% over the last 30 years. Emissions discharged after 1980 therefore, have yet to achieve their full warming effect on the planet. Scientific calculations indicate that this will lead to an additional temperature increase of 0.6 degrees (*i.e.* 1.4 degrees Celsius in total) that can no longer be avoided, not even if humans were to stop burning oil, gas, brown coal and coal with immediate effect.

Even a rise above 1.4 degrees Celsius can no longer be averted. As long as we have not yet made the transition to a new emission-free energy infrastructure and keep on consuming massive quantities of fossil fuels, greenhouse gases will continue to be pumped into our atmosphere. These future emissions and the associated global warming (in excess of 1.4 degrees) are equally unavoidable. The actual scale of those future emissions and the corresponding temperature rise will ultimately hinge on how fast humans implement the transition to clean (carbon emission-free) energy.

It is precisely this speed with which emission reductions ought to take place that is the focus of Urgenda et al's suit against the Dutch State. According to scientific models, if our CO₂ emissions continue unabated, atmospheric concentrations of CO₂ will continue to increase by more than 20 ppm every decade, mounting to a concentration of 450 ppm around 2035. Once carbon hits a concentration level of 450 ppm, climate science shows there is only a 50% chance that global warming can still be kept below 2 degrees Celsius, which is why it is so crucial that the 450 ppm threshold is never exceeded.

As already mentioned, the prevention of this 2-degree Celsius increase in the Earth's average temperature has become a central shared objective of the 195 countries (and the European Union) that signed the UN Climate Convention in 1992. A warming beyond this level is expected to lead to sea level rises, loss of biodiversity, degradation of ecosystems, an increase in infectious diseases and in extreme weather events (storms, heat waves, droughts, forest fires, floods) to an extent considered to pose a threat to human society. According to the convention's signatories, above this 2-degree threshold there also looms the additional danger of reaching certain tipping points in the Earth's climate system, such as the release of methane – a strong greenhouse gas – of which large quantities are trapped in the world's permafrost regions and released when permafrost melts. This could accelerate the pace of climate change so greatly that society would be powerless to moderate or even sufficiently adapt to it.

It is in view of these considerations that the UN Climate Convention seeks first and foremost to prevent a 2-degree increase and that its signatories have recognised that the world's industrialised Nations, including the Netherlands and all other European States, must cut their emissions by up to 40% or in any case at least 25% by 2020 (at the latest) relative to 1990, to stay below the 450 ppm level and thus keep a 50% chance of not breaching the 2-degree threshold.

III. The Tort of Negligence and the Duty of Care

It is a known fact that the Netherlands is not striving (nor, indeed, is the European Union) to achieve a 25-40% reduction by 2020 relative to 1990. Under current government policy, the reduction target for 2020 has been fixed at 16%. This means the Netherlands will not be meeting the basic condition that it previously acknowledged as essential for achieving the climate target to avert dangerous climate change.

Urgenda et al consider this negligence on the part of the State to be unlawful because the State is thereby contributing to a situation of endangerment of Dutch society and its territory. Although this danger will not actually grow manifest for several decades, it increasing over time due to the inherent time lag in the climate

⁷ A concentration of 300 ppm means that 300 out of every 1,000,000 molecules in the atmosphere were CO₂ molecules.

⁸ Its warming effect on the Earth's seas and ice masses is even more distant in time as water/ice warm up more slowly than land masses.

system, this looming threat is unequivocally rooted in the acts and omissions of today. Because Urgenda et al are not claiming compensation of damages but an order (pursuant to Section 296 of Book 3 of the Dutch Civil Code) to reduce emissions with a view to preventing future damage and injury, the existence of present damage is not a necessary requisite. For the purpose of such an order the *threat* of damage – based on the principle of prevention – is sufficient. Equally, the threat of human rights violations – the connection with which is discussed later in this article – is in itself sufficient for any European citizen to invoke the ECHR and ECtHR rulings in national litigation and, if a remedy is not provided for nationally, to apply to the ECtHR for protection against this threat.⁹

The question of whether the State can indeed be charged with negligence because of breaching the duty of care should be assessed on the basis of a set of criteria that are anchored in the duty of care. These criteria for the duty of care are universal and generally include a reasonable foresight of harm, a relationship of sufficient proximity (the claimant must show that the defendant had a measure of control over and responsibility for the potentially dangerous situation) and that it is fair, just and reasonable to impose a duty of care.¹⁰ These criteria define the nature of what we generally perceive as social decency and responsible behaviour. They have been incorporated in legal languages around the world and known as the ‘reasonable man standard’ or (in French) ‘*la notion de bon père de famille*’ or (in Spanish) ‘*el principio del buen padre de familia*’ or (in Latin) ‘*bonus pater familias*’. What it means is that the factual conduct of the defendant is compared with the normative conduct of an average careful person in the same situation duly balancing risk and care, taken into account all circumstances of the case. Where the defendant’s conduct did not meet this standard of care, negligence can be established. As it concerns any natural and legal person, both private and public, States are also bound by the standard of due care.

For the Dutch context the criteria for imposing a duty of care are anchored in the social standard of due care as laid down in Section 162, paragraph 2 of Book 6 of the Dutch Civil Code and these criteria are elaborated upon in the Dutch landmark ‘cellar-hatch ruling’ (*Kelderluik-arrest*) of the Dutch Supreme Court.¹¹ In the application of these criteria in the Netherlands, there are four questions to be considered, according to the Supreme Court: how apparent is the danger, how great is the chance that the danger will manifest itself, how serious is the danger (*e.g.* damage to health or property) and how costly or objectionable is it to take the necessary preventive measures. Let’s take a closer look at these criteria in relation to the case of Urgenda et al.

The first criteria, that the danger (an increase in the average global temperature of more than 2 degrees) is apparent, is attested by the IPCC’s scientific conclusions regarding climate change and by the international community’s (including the Netherlands’) acknowledgement of this danger of breaching the 2-degree threshold.¹²

On the question of how likely it is that this danger will occur and that temperatures will rise to (far) above the 2-degree tipping point if there is no immediate and drastic change in climate policy, both the scientific community and the major international institutes agree that the likelihood is very great. To quote the International Energy Agency: ‘Policies that have been implemented, or are now being pursued, suggest that the long-term average temperature increase is more likely to be between 3.6°C and 5.3°C (compared with pre-industrial levels), with most of the increase occurring this century... To keep open a realistic chance of meeting the 2°C target, intensive action is required before 2020.’¹³

Also international accountancy firms attest to that conclusion. To quote one of them: ‘Even doubling our current rate of decarbonisation would still lead to emissions consistent with 6 degrees of warming. To give ourselves a more than 50% chance of avoiding 2 degrees will require a six-fold improvement in our rate of decarbonisation. Business leaders have been asking for clarity in political ambition on climate change. Now

⁹ The purpose of the ECHR is not merely to establish after the fact that violations have taken place; on the contrary, under the obligation ensuring from Article 1 of the ECHR, any violation of the ECHR is to be *prevented*. See *eg Klass v Germany* App no 5029/71 (ECtHR, 6 September 1978); *Dudgeon v United Kingdom* App no 7525/76 (ECtHR, 22 October 1981).

¹⁰ See for instance the Principles of European Tort Law, art 4:102; for the UK, *Caparo Industries plc v Dickman* [1990] 2 AC 605 (HL) on the duty of care.

¹¹ HR, 6 November 1965, *NJ* 1966/136.

¹² See *eg* the Dutch administration’s letter to the Lower Chamber of 12 October 2009 before the Copenhagen climate conference, in which the administration writes: ‘The sum total of emissions reductions offered by developed countries to date is still insufficient to achieve the 25-40% reduction by 2020, which is necessary to plausibly keep the 2-degree target within reach.’ Parliamentary Paper 31 793 No 17.

¹³ The International Energy Agency in the report titled ‘Redrawing the Energy-Climate Map’ of 10 June 2013. (www.worldenergyoutlook.org/media/weowebsite/2013/energyclimatemap/RedrawingEnergyClimateMap.pdf).

one thing is clear, businesses, governments and communities across the world need to plan for a warming world, not just by 2°C, but 4°C and, at our current rates, 6°C.¹⁴

The severity of the danger is demonstrated by the potentially catastrophic impacts that a climatic change of 2 degrees or more would have on human civilisation (as outlined above), as indeed was established by the US Supreme Court in its 2007 ruling in the case of *Massachusetts v EPA*:¹⁵ 'The harms associated with climate change are serious and well recognized... the risk of catastrophic harm, though remote, is nevertheless real.' The Cancun Agreements, mentioned above, likewise stress the severity of the danger: 'Recognizing that climate change represents an urgent and potentially irreversible threat to human societies and the planet, and thus requires to be urgently addressed by all the parties.' The serious nature of the danger also follows from the fact that the consequences of climate change could lead to violations of human rights (including in the Netherlands and the rest of Europe), as will be discussed in greater detail below.

Concerning the last question, regarding the possibilities for taking preventative measures to avert the danger, both the Netherlands and the rest of the world have recognised that, as a first step, industrialised countries must achieve reductions in the order of 25-40% *before* 2020, in part through policies to promote energy efficiency and renewable energy. Such measures are both technically and financially feasible. Furthermore, putting off the crucial emissions reductions until after 2020 would cost more than four times as much as taking these measures before that time.¹⁶ So delaying action is not an option and will prove to be a false economy.

Clearly, the evidence in the climate case demonstrates that all the criteria for concluding that the Dutch State is culpable of causing and in any event contributing to unlawful endangerment have been met. This is probably not only true in the Dutch context but also in other European countries, given that the criteria for imposing a duty of care and establishing negligence are, as said, more or less universal and also given that the abovementioned climate change facts apply to all European States.

According to Urgenda et al the Dutch State is not only acting unlawful because it is pursuing inadequate emission reduction objectives among other things, the Dutch State is also continuing to actively subsidise and foster the use of fossil fuels on a massive scale of more than €5 billion in annual subsidies (as do most other European States by the way), while renewable energy is allocated just € 1.5 billion by the Dutch State.¹⁷ According to Urgenda et al the massive subsidising of fossil fuels by the Dutch government in this day and age and in light of the facts surrounding climate change, also qualifies as a violation of the duty of care.

The grounds on which Urgenda et al can hold the State responsible and liable for the total combined volume of greenhouse gas emissions emitted by manufacturers and consumers in the territory of the Netherlands is provided first and foremost by Article 21 of the Dutch Constitution, which charges the government with safeguarding the habitability of the country and the protection and improvement of its living environment. The premise that States can be held liable for environmental pollution arising within their territory (in this case GHG-emissions) also follows from the no-harm rule as a widely recognised principle of customary international law and from Articles 2 and 8 of the ECHR and it is these international legal standards that can most effectively be invoked against such States and most clearly designate such States as the responsible or liable parties, be it the Dutch State or any other European State.

IV. Human Rights Violations: Infringement of Rights and Breach of Statutory Duty

According to the UN Human Rights Council (Resolution 10/4 of 2009), the danger with climate change, especially a climatic change of more than 2 degrees, poses a threat to human rights around the world, most notably to the right to life and the right to health. Heat stress, floods, sea level rises, the spread of infectious diseases, summer smog, the degradation and loss of ecosystems and flora and fauna and the risks to drinking water and food supplies will contribute to mounting violations, both in the Netherlands, Europe and around the world, of the right to life (Article 2 of the ECHR) and the right to health and respect for private and family

¹⁴ PricewaterhouseCoopers in its report titled 'Too late for two degrees' of November 2012 (www.pwc.com/en_GX/gx/sustainability/publications/low-carbon-economy-index/assets/pwc-low-carbon-economy-index-2012.pdf).

¹⁵ *Massachusetts v Environmental Protection Agency*, 549 U.S. 497 (2007).

¹⁶ According to International Energy Agency (n 13).

¹⁷ This was the conclusion of a Dutch report titled *Overheidsingrepen in de energiemarkt – onderzoek naar het Nederlands speelveld voor fossiele brandstoffen, hernieuwbare bronnen, kernenergie en energiebesparing* drawn up by the consultancy firms CE Delft and Ecofys and commissioned by Eneco and Triodos bank: www.ce.nl/?go=home.downloadPub&id=1159&file=7390_eindrapport_CEDELTECOFYS.pdf.

life (Article 8 of the ECHR). For this reason, Urgenda et al are also invoking the State's breach of these articles of the ECHR, which have a direct bearing on Dutch law under Articles 93 and 94 of the Dutch Constitution. Such human rights violations qualify as an infringement of a right and also as a breach of a statutory duty.

Indeed, to date the ECtHR has already ruled in various cases in which Articles 2 or 8 were at stake that States are under a positive obligation to take measures in the event of potential violations (due to environmental pollution) of the right to life or the right to respect for private and family life.¹⁸ In other words, States are under an obligation to actively protect and prevent. This preventative duty arises even with just a heightened risk of violation, regardless of whether damage has already occurred.¹⁹ Where there is a sufficiently real risk of a negative influence on the health of citizens (such as will most certainly be the case with dangerous climate change), the government comes under an obligation to protect its citizens from that negative influence, even where there is no absolute certainty regarding the causal link between the act (or omission) giving rise to the damage and the damage or threat itself.²⁰ In the matter of climate change, which will affect everyone, everywhere, it should further be noted that the ECtHR also weighs the question of whether there is any realistic possibility that a complainant could escape the environmental pollution by moving to a more environmentally favourable area. If no such possibility exists – such as in the wake of a 2-degree temperature rise and its global negative impacts – then the State has a far-reaching duty of protection.²¹

The fact that claimants apply to the ECtHR in situations that impact entire countries or regions – as Urgenda et al are doing at the Court of The Hague, in no way detracts from the assumption, according to the ECtHR, that individual claimants suffer individual damage and are at an individual risk. In cases where a general public health risk arises that will affect people within a large area to greater or lesser degrees, the ECtHR has ruled that there is a sufficiently individual interest in protection.²²

In the case of *Taskin v Turkey* of November 10, 2004²³, the ECtHR furthermore ruled that even when the damage cannot be definitively established due to the fact that it may not be inflicted until sometime in the distant future (decades later) – offering a good comparison for the delay of several decades between the emission of CO₂ (cause) and warming (effect) – it is nonetheless possible to appeal for protection under Article 8 of the ECHR if it can be shown that there is a generally acknowledged and foreseeable health risk.

In light of these and other judgments by the ECtHR cited in the summons, Urgenda et al believe that the facts in this climate case are such that the protection granted under the ECHR can already be invoked against the State today and that the State can be placed under a judicial order to reduce emissions. Strictly speaking, the positive obligation of States in the event of violations of Articles 2 and/or 8 of the ECHR could even be sufficient grounds for a legislative order. Urgenda et al however are not seeking such an order given that the Dutch State already has sufficient instruments at its disposal to effectively reduce carbon emissions within the current statutory framework.

V. Causation

The threat of dangerous climate change is caused by the excessive worldwide emissions of CO₂ and other greenhouse gases due to human activities. With a population numbering 17 million, the Netherlands is by no means the largest source of such emissions. Countries such as China, India and the United States have populations many times that of the Netherlands and produce many times the amount of carbon dioxide. The nature of the problem with greenhouse gas emissions is a prime example of the law of large numbers and, in fact, not one country on its own releases enough emissions to cause dangerous climate change by itself.

In terms of causation, no single country fulfils the 'but for' test²⁴ (the *conditio-sine-qua-non* test) to be deemed liable for a dangerous climate change. Rather, climate change occurs as a result of the accumulation of all worldwide carbon dioxide emissions and it is these worldwide carbon dioxide emissions that are the joint, cumulative cause of climate change. No one country therefore produces enough greenhouse gas emissions to be individually and solely responsible for causing dangerous climate change. However,

¹⁸ See eg *Oneryildiz v Turkey* App no 48939/99 (ECtHR, 30 November 2004); *Tatar v Romania* App no 67021/01 (ECtHR, 27 January 2009); *Budayeva v Russia* App nos 15339/02m 21166/02, 11673/02 and 15343/02 (ECtHR, 20 March 2008).

¹⁹ *Di Sarno v Italy* App no 30765/08 (ECtHR, 10 January 2012).

²⁰ *Tatar* (n 18).

²¹ This follows from *Fadeyeva v Russia* App no 55723/00 (ECtHR, 9 June 2005).

²² See *Di Sarno* (n 19); *Okyay v Turkey* App no 3622/97 (ECtHR 12 June 2005).

²³ *Taskin v Turkey* App no 46117/99 (ECtHR, 10 November 2004).

²⁴ If the damage would not have happened *but for* a particular fault, then that fault is the cause of the damage, or as art 3:101 (*conditio sine qua non*) of the Principles of European Tort Law describes it: 'An activity or conduct (hereafter: activity) is a cause of the victim's damage if, in the absence of the activity, the damage would not have occurred.'

every country, in particular the industrialised ones, contributes its own share to causing dangerous climate change. Because, as a hypothetical case, if an industrialised country would all of a sudden stop all its greenhouse gas emissions, there will still be a continuing warming of the planet due to the emissions of other countries, but less so. This is also the opinion of the US Supreme Court in its 2007 ruling in the case of *Massachusetts v EPA*.²⁵ In an attempt to evade responsibility, EPA has stated that regulating motor-vehicle emissions in the US would be useless in the face of the magnitude of the climate problem and given the volumes of greenhouse gases that China and India were predicted to emit in decades to come. The Supreme Court took a contrasting view, stating: 'While it may be true that regulating motor-vehicle emissions will not by itself reverse global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to slow or reduce it... A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.'

Because each avoided share of a Nation's domestic emissions will in itself slow or reduce global warming, it can be said that each country has a divisible share in the causation of global warming, climate change and its consequences. This is because each country's emissions can be separated from those of other countries and traced back to a tort of negligence of the corresponding State. The countries as multiple tortfeasors are therefore not the joint cause of the same damage, *i.e.* cases where there would be no damage if one of the tortfeasors would not have committed his tort, in which cases a joint and several liability would apply in most jurisdictions. Instead each of the industrialised countries is contributing their own identifiable share to climate change and in such cases each of the tortfeasors is only liable for the damage he is actually causing. This several or proportional liability of each of the tortfeasors for the damage he is actually causing, seems to be the legal rule in all jurisdictions in Europe.²⁶

A good example of the application of such apportionment of causation and damage in a case comparable to climate change is the Dutch Supreme Court's '*Kalimijnen* ruling'²⁷ that Urgenda et al also invoke in their summons. This case concerned excessive pollution of the Rhine River due to repeated dumping of chloride (salt) by various parties in France, Germany, Luxembourg and the Netherlands. Not one single dumping was large enough to render the water unusable for Dutch horticulturists, but the cumulative effect of all the dumpings was. In the conclusion to the ruling in this case, Advocate General Franx of the Dutch Supreme Court determined that the 'but for' test does not apply 'in situations where there are converging ('concerted' cumulative) causes (...) as this condition could lead to the unacceptable consequence that not a single one of those dumping the chloride could be held liable...' The Dutch Supreme Court accepted that in such a case, in which an increase in the concentration of chloride (due to dumping) leads to a proportionate increase in the damage (to the good condition and utility of Rhine river water), each defendant whose contribution is not negligible bears a corresponding liability in proportion to its share in causing the damage. If the defendant were found only to have contributed to ten percent of the tort the defendant would be only liable for 10 percent of the damages.

A comparison of the *Kalimijnen* case and the climate suit being brought by Urgenda et al yields many parallels. Both concern cross-border pollution and, just as the Rhine naturally has a certain concentration of salt, the atmosphere also has a naturally occurring concentration of carbon dioxide. In both cases a large number of parties are jointly responsible for the pollution and in neither does the 'but for' test apply, in the sense that the pollution will still continue and the damage will still be inflicted, be it to a lesser extent, even if a polluter who is called to account ceases its pollution. Another parallel is that in the *Kalimijnen* case there was a Chloride Pollution Treaty that sought to regulate and reduce unnatural contamination of the water, much as the UN Climate Convention seeks to limit the pollution of the atmosphere with unnatural discharges of greenhouse gases. In both cases these treaties in no way impede private parties from initiating private legal proceedings against the pollution concerned.

In view of the parallels between these two cases, Urgenda et al conclude that the State is subject to a several or proportionate liability and responsibility to take the preventative measures needed to avert dangerous climate change. Based on this principle of several liability, Urgenda et al hold that the State has the duty to reduce its emissions in proportion to what is needed to prevent dangerous climate change. This is in effect the duty to achieve within the Dutch territory, a 40% or in any case 25% (minimum) reduction by 2020 relative to the level in 1990. As this concerns an individual liability of the State, it therefore entails an

²⁵ *Massachusetts* (n 15).

²⁶ Van Dam (n 3) 1108-1; Akkermans (n 3).

²⁷ HR, 23 September 23 1988 NJ 1989/743.

individual responsibility and obligation for which the State can be called to account and is a separate matter from what other countries do or omit to do.

This conclusion also ties in with the principles underlying the UN Climate Convention, to which signatory States are subject, namely that although the prevention of dangerous climate change is a common interest of all countries, this does not detract from countries' individual responsibility to achieve this aim. Each signatory State to the Convention should, according to the Convention, take its own measures to mitigate the causes of climate change within its territory, making it an individual responsibility for signatory States to address dangerous climate change. This responsibility may of course be carried out cooperatively by signatory States, but any cooperative effort does not deny the individual responsibility of States under the Convention.

It is also for this reason that the UN Climate Convention uses a per capita calculation of emissions for each country as its reference point for comparing national emissions and for differentiating reduction requirements and responsibilities for each country.²⁸ Calculated on the basis of per capita emissions, the Netherlands accounts for a very sizeable – even disproportionately large – share. In fact, in the rankings issued by the World Bank in 2009, the Netherlands' per capital emissions of CO₂ put it fifth on a list of 217 countries, making it one of the largest polluters in the world and far and away the most polluting country on a per capita basis in all Europe. Even in absolute terms, Dutch carbon emissions are substantial. In 2009, the Netherlands ranked 25th among 217 countries in terms of its absolute quantity of emissions. Consequently, the contribution of Dutch carbon emissions to dangerous climate change cannot by any stretch be deemed 'negligible' as defined by the Dutch Supreme Court. Indeed it is disproportionately large and implies a proportionate liability for its causation.

The contribution of carbon emissions from other European Countries, be it per capita emissions or the emissions in absolute terms, are also large. For instance Germany, the UK, Italy, France, Spain and Poland are Europe's largest emitters in absolute terms (and all top 20 in the world), whilst countries like Belgium, Luxembourg and Iceland are, like the Netherlands, very large emitters in per capita terms on the global list of carbon polluters.

It is precisely because industrialised Nations such as the European Member States are the main cause of global warming and climate change, also given their historic emissions since the industrial revolution, that the Convention hands the biggest responsibility for greenhouse gas reduction to industrialised States and obliges them to take the lead in their mitigation efforts in accordance with the Convention's principle of common but differentiated responsibilities. The acknowledged necessity for industrialised States to reduce their greenhouse gas emissions by 2020 within the 25-40% range, to keep a chance of 50% of not breaching the two degree threshold, is a result of the application of this principle of common but differentiated responsibilities. According to Urgenda et al the Dutch State has a duty of care to actually take these necessary measures of emission reduction before 2020. Taking into account the above, it seems that other European countries have the same legal duty of care against their own citizens.

VI. Policy Freedom

The greenhouse gas emission reduction being demanded by Urgenda et al could have a potentially huge impact on the Dutch government's policymaking freedom. This raises the question of whether emission reductions can be claimed through judicial action or that only politicians have jurisdiction to take such measures.

Urgenda et al take the position that the fact that a court decision could have potentially major policy implications, does not in itself mean that the court is being asked to make a political decision.

Among the grounds cited in the summons to justify this position is a case involving American Electric Power (AEP) and the state of Connecticut in which the US Court of Appeals for the Second Circuit ruled on 21 September 2009. In this suit, Connecticut (and other plaintiffs) sought a remedy for CO₂ emissions being released by AEP and several other electrical utility companies. In the first instance the claim was dismissed because a lower court considered the climate issue to be an issue of policy. However, the court of appeal²⁹ (the Second Circuit Court of Appeals) reversed this ruling, contending that it is a mistake to equate a political question with a political case. It held that the fact that the court's decision in a case can have potentially

²⁸ See the Preamble and Art 3 of the UN Climate Convention, which lays down the principle of countries' 'common but differentiated responsibilities' on the basis of criteria including per capita emissions.

²⁹ *American Electric Power Company v Connecticut*, 564 U.S. ____ (2011).

major political implications does not mean that the question before the court is a non-justiciable political question beyond the courts' jurisdiction. A question of law is justiciable even if it has political tangents and overtones. As the Second Circuit stated in its ruling:

'Certainly, the political implications of any decision involving possible limits on carbon emissions are important in the context of global warming, but not every case with political overtones is non-justifiable. It is an error to equate a political question with a political case. (...) Given the checks and balances among the three branches of our government, the judiciary can no more usurp executive and legislated prerogatives than it can decline to decide on matters within its jurisdiction simply because such matters may have political ramifications.'

Owing to the separation of powers, the judicial branch may not extend its authority. Crucially however, neither may it reduce its authority. Thus, while it is true that the question brought before the court by Urgenda et al is a question of law with political implications, it remains a question of law and those political implications do not transform it into a 'political' question over which the court may exercise no or only very limited discretion. It is therefore now up to the Court of The Hague to judge in this Dutch climate case. The same will be true for courts in other European countries if plaintiffs across Europe choose to sue their national governments for their inadequate and unlawful climate policies.

VII. Conclusion

In adopting the Cancun Agreements and the two-degree threshold, the signatory countries to the UN Climate Convention defined the red line of what constitutes the maximum acceptable risk level for society in relation to the emission of greenhouse gases. This universally accepted definition of dangerous climate change defines the duty of care that each European Nation States has to take into account when designing its national climate policies. In the authors opinion, knowingly contributing to breaching the dangerous threshold of two degrees due to inadequate national climate policies constitutes a tort of negligence of the State against its citizens and poses a real threat for its citizens' effective enjoyment of human rights.

Because of the specific causation aspects between greenhouse gases and climate change, States can be assigned a several liability and corresponding duty of care, which is to say that each European State has a duty of care to reduce its nation's greenhouse gas emissions from its own territory to a level that is necessary – taking into account the two-degree threshold and the derived necessary emission reductions of 25 to 40% before 2020 compared to 1990 levels – to help prevent dangerous climate change. As the Dutch plaintiffs in the climate case against the Dutch State, this legal approach gives citizens and non-governmental organizations in European Nations alike, a chance to become more involved in the fight against dangerous climate change by using their nations law and judicial system. Climate change has now become a human rights issue and these are rights worth fighting for.

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