



Editorial



Climate Change: Does Law Play A Role?

The year 2015 faced extreme weather phenomena. People suffered from heat waves in India, the United States, and Alaska, or lost their houses or even families due to water floods in the United Kingdom, Bangladesh, and Chile. These weather phenomena are increasingly acknowledged as an effect of climate change: a problem that by its very nature transcends national borders, *i.e.* legal orders, and thus falls perfectly under the international scope of Tilburg Law Review.

When speaking of climate change, one automatically thinks of anthropogenic global warming. Global warming entails the temperature increase on earth due to the enhancement of the greenhouse effect. The greenhouse effect comes down to the following: The earth's surface absorbs light energy (solar radiation) from the sun and emits it as heat energy (infrared radiation) to the earth's atmosphere. Greenhouse gases in the atmosphere (such as carbon dioxide) absorb this heat and emit some of it back at the earth. Hence, the earth's atmosphere lets light in and out, but keeps heat trapped inside, just as a greenhouse. Without this greenhouse effect, the earth surface would be 15 degrees Celsius colder. As a consequence, humanity could not exist without the greenhouse effect.

However, due to human activities the atmospheric concentration of greenhouse gases has increased. The combustion of fossil fuels for purposes such as electricity, heat, and transportation constitutes the largest source for greenhouse gas emissions, but also global changes to land surface, such as deforestation, account for a large amount of emissions. Because of this increase of greenhouse gases, the atmosphere absorbs and emits more heat back to earth, causing the earth surface to warm up, and resulting in extreme heat waves, water floods, and rising sea levels due to melting glaciers and ice sheets.

However, extreme weather phenomena were not the only thing that climate change has given us in 2015. It also brought the United Nations Climate Change

Conference in Paris. The objective of this conference was to achieve a legally binding and universal agreement to challenge climate change from all the nations of the world. The Climate Summit in Paris was a success to the extent that nearly 200 countries entered into an agreement. The Paris Agreement, a treaty under international law, established a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. The Agreement, inter alia, reaffirmed the goal of limiting global temperature increase well below 2 degrees Celsius while urging efforts to limit the increase to 1.5 degrees, committed all countries to report regularly on their greenhouse gas emissions as well as to undergo international review with regard to the efforts they are making in mitigating these emissions, and extended a mechanism to address “loss and damage” resulting from climate change.¹

The Paris Agreement was received as a diplomatic success, being hailed as ‘historic, durable and ambitious.’² The plain fact that the entire international community entered into an agreement offers a way forward in combatting climate change, with the Paris Agreement marking the contours of an ongoing process of cutting greenhouse gas emissions. Experts have questioned the Agreement’s impact in addressing the problem of global warming, though. The goal of holding the global temperature increase below 2 degrees Celsius was said to be an unattainable target, since that would require a 100% reduction of emissions. In addition, the Paris Agreement was claimed to be weak: the Agreement mostly codifies what has already been established under the UN-scheme, albeit in rather soft language (“should” instead of “shall”). The Agreement thus lacks specific, legally binding emission reduction commitments as well as strong enforcement mechanisms.³

A spectacular judgement by the Dutch court demonstrated that the lack of supranational enforcement mechanisms could be compensated by climate change litigation on the national level. In the landmark-case *Urgenda v the State of the Netherlands* state liability for climate change was established for the first time. Hence, this ruling demonstrated that the judiciary may call

1 Centre for Climate and Energy Solutions, ‘OUTCOMES OF THE U.N. CLIMATE CHANGE CONFERENCE IN PARIS’ (December 2015) <<http://www.c2es.org/docUploads/cop-21-paris-summary-12-2015-final.pdf>> last accessed 7 February 2016.

2 Fiona Harvey, ‘Paris climate change agreement: the world’s greatest diplomatic success’ *The Guardian* (14 December 2015) <<http://www.theguardian.com/environment/2015/dec/13/paris-climate-deal-cop-diplomacy-developing-united-nations>> last accessed 7 February 2016.

3 See also J Verschuuren and J Reynolds, ‘The Paris climate agreement: Some hesitations from a legal perspective’ (*Tilburg University Environmental Law Blog*, 20 December 2015) <<https://blog.uvt.nl/environmentallaw/?p=139>> last accessed 7 February 2015.

upon governments to deliver on the obligations in the context of climate change that they have taken upon themselves in international agreements and national policies. To reach this decision, the Dutch district court of The Hague had to overcome many obstacles. Marc Loth discusses the content of the decision, addresses these obstacles and responds to critical observations that were made by others.

One of the critical aspects of this decision was the question whether or not *Urgenda* could represent future generations. The standing of future generations is further explored in the article of Rachel Johnston. Johnston advocates for granting future generations a legal standing alongside notions of intergenerational justice and human rights protection. Johnston explains why the climate change mitigation strategies that are adopted under international law are insufficient to protect future generations against the effects of climate change, and argues that the present generation owes core obligations in relation to future generations, entailing the protection against climate change. Johnston completes her study by comparing the torts-based approach with the concept of a planetary trust as the basis for potential remedies in climate change litigation.

Another problematic issue in climate change litigation is linked to the matter of causation. Scientific uncertainty still exists in linking particular climate change effects to the level of greenhouse gasses that are emitted in certain countries or by certain corporations. In climate change litigation, this uncertainty results in a problem of evidence: How can the plaintiff prove that the defendant is responsible for climate change and its effects? In her article, Lydia Akinyi Omuko discusses how the precautionary principle can be applied to address this problem. Omuko provides a background of this principle, and derives insights from case law with regard to how the principle can be applied in the context of climate change liability.

The last article deals with a pressing problem that is caused by global warming, namely that of rising sea levels. Eleanor Doig takes on an interesting approach when discussing what impact the rising sea levels has for small, low-lying island states, which are slowly but surely losing territory as a consequence of coastal flooding. By means of case studies on three small island-states (Tuvalu, Maldives and Kiribati), Doig addresses the question whether international law can cope with the loss-of-territory and thus the loss of the state right to self-determination as well as the human rights of island states' inhabitants. Doig considers three ways for these 'sinking' states to preserve sovereignty under international law: the construction of artificial islands, the acquisition of land within another state, and the resettlement of populations.

Hence, this special issue encompasses various legal aspects of climate change: state liability for climate change; the legal position of future generations in climate change litigation; the problem of proof and causation in climate change litigation, and last but not least, the legal challenges that small, 'sinking', island states face under international law due to rising sea levels as a result of climate change. Therefore, I hope this issue will serve as an interesting collection of articles for climate change specialists and legal scholars in general. Climate change is a topic that affects us all, and both Paris and the Urgenda-decision have demonstrated that law can play a meaningful role in combating climate change.

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Eva van Vugt

Editor in Chief