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Lando, Henrik

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**Should courts decide climate policies?
A critical perspective on the Urgenda verdict**

Henrik Lando

Should courts decide climate policies?

A critical perspective on the Urgenda verdict

Henrik Lando,

Professor, CBS Law/MPP, Copenhagen Business School, Denmark

Abstract

Climate litigation has become a trend in recent years. In one form such litigation organized citizens seek to require governments to set more ambitious CO₂-abatement goals. In the Dutch Urgenda case, which is held to be a landmark case, the plaintiffs prevailed, forcing the Dutch government to change its climate policies. Using Urgenda as illustration, this article provides reasons for being skeptical of such climate litigation. One central reason for skepticism is the courts' lack of democratic legitimacy, but this article focuses on another reason, namely that court litigation cannot be trusted as a mechanism for making good climate decisions. This functional reason for skepticism is well illustrated in the *Urgenda* case, where the courts framed the policy question in a manner that made it conducive to court adjudication, but where this framing was untenable. The Supreme Court referred to a scientific and political consensus about the need for more ambitious abatement and inferred that the Dutch State's greater obligations then followed from human rights principles and the precautionary principle. However, this framing was invalid, as there is no clear scientific or political consensus about the required degree of abatement and as neither human rights nor precautionary principles provide a coherent framework for weighing costs and benefits of alternative climate policies. In the absence of this framing, the Court would have had to consider the theories that seek to weigh costs and benefits of more abatement, and such consideration of alternative theories cannot reliably be conducted through the mechanisms of legal adjudication. For one thing, courts are in civil trials restricted to considering the evidence that litigants bring forth. Notably, in *Urgenda*, the Dutch government could not be expected to dispute facts or theories to which it was politically committed. Moreover, the theories weighing costs and benefits are inherently complex, and judges cannot be expected to be able to choose between them. For instance, choosing between different theoretical prescriptions requires an understanding of the very intricate question of the proper rate of discounting over time.

Introduction

In 2015, a non-governmental organization (Urgenda) filed a civil, 'general interest', lawsuit against the Dutch State holding it to be under a duty to tighten its CO₂ abatement policies. It prevailed as the Dutch District Court, the Appeals Court, and finally in 2019 the Supreme Court¹ all held there to be a duty for the Dutch government to institute a policy ensuring an decrease of Dutch CO₂ emissions of 25 % as compared with 1990.² The courts argued that there is a scientific and political consensus about the urgent need to make sure that temperature increases (compared with pre-industrial time) do not exceed 2 degrees Celsius, to avoid 'real and immediate' danger to human life. Therefore, according to the Appeals and Supreme Court³, the abatement duty followed from article 2 (the right to life) and article 8 (the right to family life) of the European Human Rights Convention (ECHR), in combination with the precautionary principle.

The Urgenda case is part of a trend of climate litigation. Private parties either seek compensation for harm suffered due to global warming⁴, attempt to force private companies to curb CO₂-emissions⁵ or, as in the Urgenda case, seek to force legislatures to adopt stricter legislation. This article discusses the latter form of climate litigation on the background of *Urgenda*.

A central question of climate litigation is that of democratic legitimacy, i.e. to which extent it is legitimate for courts to substitute their own views and preferences for those of elected politicians. This question can be analyzed from an internal, legal perspective, by asking whether the courts were in line with precedent, and whether they were too activist as compared with the role ascribed to them by the Dutch constitution, by the European Convention of Human Rights, or by other legal sources. Such legal analysis is of course important but may perhaps often not in the end convince very many. As has been argued by legal realists, legal sources are too open-ended to always allow for definite answers to the question of what the law is. Those who believe that the climate threat is existential are likely to consider *Urgenda* as being in line with precedent, or if not, as being a break with the past that can be justified from a teleological interpretation of the ECHR. While those who see the threat as a challenge on par with other social challenges, are likely to draw the opposite conclusions. Therefore, it may be worth also considering the more external question whether climate litigation is likely to lead to well-reasoned decisions. If the answer is negative, perhaps a consensus can be reached to not rely too much on climate litigation as there may be a backlash to the environmental cause in the wake of poor climate policy decisions.

This article will focus mainly on the latter question of whether climate litigation is likely to lead to well-reasoned decisions. However, the internal, legal analysis is part of the question of democratic legitimacy and forms the background of the functional analysis. Therefore, I shall begin by referring to a legal criticism that has been raised against *Urgenda*.

1. A legal criticism of *Urgenda*

Traditionally, courts have been reluctant to substitute its views and preferences for that of elected politicians. As is well-known, this reluctance has roots in the original, constitutional philosophy,

¹ The Supreme Court verdict can be found here in English:

<https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:HR:2019:2007>

² The EU target was to decrease emissions by 20% while the Netherlands was apparently planning a decrease of 16-17%.

³ The District Court found a duty in tort law, not in the ECHR.

⁴ For instance, Luciano Lliuya v. RWE AG.

⁵ As in Milieudefensie et al. v. Royal Dutch Shell plc, a Dutch case following the Urgenda case.

where e.g. Montesquieu (1989) saw the role of courts as interpreting rather than making the law. The idea of democracy was to accord power to the people.⁶ In recent years, there has been a tendency for courts to become more activist, in part due to the influence of ECHR, but it has been generally understood that court activism was more appropriate in the domain of personal and political freedoms than in the formulation of broader policies involving the allocation of social resources. For instance, courts have been reluctant to override general health policies or general policies of workplace safety, even though these policies may affect the right to life, which as noted is protected in ECHR. In line with this reluctance, i.e. in order not to infringe on the political domain, the European Court of Human Rights (ECtHR) has required threats to human life to be 'real and immediate' before they could trigger protection under ECHR. However, in *Urgenda*, the Supreme Court interpreted 'real and immediate' to mean direct. It held that the State is⁷:

..obliged to take appropriate steps if there is a real and immediate risk to persons and the state in question is aware of that risk. In this context, the term 'real and immediate risk' must be understood to refer to a risk that is both genuine and imminent. The term 'immediate' does not refer to imminence in the sense that the risk must materialise within a short period of time, but rather that the risk in question is directly threatening the persons involved.

According to Lucas Bergkamp (2020), the courts thereby stretched the interpretation of immediate risk too far.⁸ In the ECtHR case law referred to by the Supreme Court⁹, the risks to human lives were, according to Bergkamp, more imminent and direct and less contingent than the threats of global warming. For instance, in the case ECHR 20 Mar. 2008, nr. 15339/02 (*Budayeva e.a./Rusland*), public authorities had failed to prevent a mudslide, and to notify its victims of the danger; here the risk was more imminent than that of climate change. Bergkamp argued that if 'real and immediate risk' is interpreted as broadly as in the *Urgenda* verdict, *courts might decide also, for instance, on the policies regulating chemical pollution or policies of defense spending*.¹⁰ Chemical pollution or war may also represent a direct, although probabilistic, threat to the lives of every member of society, that courts should avert under the precautionary principle.¹¹

The criticisms raised by Bergkamp and others certainly raise the issue of whether *Urgenda* can be considered too activist on legal grounds. This brings us to consider whether such activism is likely to be advisable.

⁶ The reluctance would also seem to follow from modern conceptions of deliberative democracy as associated with Habermas. See Burgers (2020), who refers to Habermas conception of democracy as ensuring dialogue, and the role of fundamental rights, such as free speech, which are guarded by the court system, as ensuring the ability to take part in that dialogue.

⁷ p. 23 in the verdict, see footnote 1.

⁸ Notably, the Norwegian Supreme Court did not find the risk to be immediate, in a case where the right of the Norwegian State to authorize oil extraction was disputed HR-2020-2472-P, (case n. 20-051052SIV-HRET).

⁹ With respect to Art. 2 ECHR, the Court referred to ECHR 20 Mar. 2008, nr. 15339/02 (*Budayeva e.a./Rusland*), para. 134, and ECHR 24 juli 2014, nr. 60908/11 (*Brincat e.a./Malta*), para. 101. With respect to Art. 8 EVRM, see ECHR 9 June 2005, nr. 55723/00 (*Fadeyeva/Rusland*), para. 96.

¹¹ Also, Bergkamp (p. 90) argued against the broad right of standing conferred upon *Urgenda*. *Urgenda* did not represent the 'general interest', and Dutch people who did not see their interests represented by *Urgenda* could not opt out.

2. The advisability of climate litigation

Are courts likely to make well-informed and well-qualified decisions of climate policy? Are the legal principles which judges are trained to interpret and to employ, such as human rights and the precautionary principle, applicable to climate policy? Is the litigation process one that is likely to bring out all salient arguments? Are judges well educated for making these kinds of policy choices¹²?

The answers that I will suggest can be paraphrased as follows.

As indicated, in *Urgenda* the Supreme Court claimed a political and scientific consensus about the absolute need for a reduction of CO₂ emissions among developed countries in the order of 25-40%. The scientific consensus was claimed to be that if these reductions were not carried out, there would be very large negative consequences or even a climate catastrophe. Since such catastrophe would entail the risk of losses of human life, the courts held that the duty to mandate these reductions followed from human rights as expressed in the European Convention of Human Rights, in combination with the precautionary principle. However, I shall argue that no such scientific (or political) consensus in fact exists. Rather, there are different theories which lead to different conclusions about how drastically emissions should be cut. In evaluating these theories, the courts could not, I will further argue, fall back on the vague principles of human rights and the precautionary principle, since what was required was a comparison of costs and benefits according to some social welfare function. But since understanding and weighing costs and benefits is inherently complex, one can call into question whether the litigation process is well suited as a decision-making procedure, and whether judges have the necessary skills for understanding and weighing the interests. I shall argue that *Urgenda* illustrates reasons for being skeptical in these regards.

2.1. The claim of scientific consensus

The Supreme Court referred to the fact that the many international, climate summit meetings have almost uniformly led to resolutions calling for developed countries to abate by 25-40% in 2020, with the aim of keeping temperature increases below 2 degrees Celsius compared to pre-industrial levels. According to the Court, this prescription expressed a consensus among the scientific community.

The Court stated (p. 9¹³):

There has long been a consensus in climate science – the science that studies climate and climate change and in the international community that the average temperature on earth may not rise by more than 2 degrees Celsius compared to the average temperature in the pre-industrial era.

¹² Decision making by Parliaments may be subject to shortcomings as well, and this article does not compare the quality of decision making of courts with that of Parliaments. For an interesting analysis of courts versus parliaments as social decision makers, see Tirole and Maskin (2004).

¹³ In the verdict as cited in footnote 1.

However, this significantly overstates the degree of consensus. There is in fact considerable disagreement among economists about how rapidly abatement should occur. In the US, the Interagency Working Group, convened by the Council of Economic Advisors and the Office of Management and Budget during the Obama administration, estimated the social cost of carbon (SCC or $SCCO_2$) which should be used for regulatory purposes, at 51\$ per ton in the year 2025 (Interagency report (2013)). This estimate was derived from a discount rate of 3%, which meant that future costs and benefits were discounted by 3%. Similarly, based on the same degree of discounting, Nobel prize winner William Nordhaus (2017) estimated a SCC for 2015 at \$31 per ton of CO_2 . Since the optimal policy would be to increase the real SCC at 3% per year, this would bring his estimate close to that of the Interagency Working Group for 2025. According to Nordhaus (2019), the optimal policy in the central case would be to accept a warming of 3.5 degrees by the year 2100. Clearly, this conclusion differs widely from the consensus claimed by the Supreme Court.

The claimed consensus is more in line with the findings of the Stern review (2007) and with the more recent Stern et al. (2022) article. The Stern review (2007) called for more drastic action than did Nordhaus and the Interagency Working Group, using a much lower discount rate.¹⁴ However, the Review's choice of discount rate met with significant criticism,¹⁵ and some of its other assumptions were also challenged.¹⁶ Nordhaus (2007) summed up the criticism as follows:

The Review's unambiguous conclusions about the need for extreme immediate action will not survive the substitution of assumptions that are more consistent with today's marketplace real interest rates and savings rates. Hence, the central questions about global-warming policy—how much, how fast, and how costly—remain open. The Review informs but does not answer these fundamental questions.

Subsequent literature has made it clear that the social cost of carbon and the optimal rate of abatement depends on a number of assumptions concerning the rate of technical progress (Acemoglu et al. (2012)), the rate of growth of the economy, risk preferences, intergenerational equity preferences, the damage function and its uncertainty, and other variables.¹⁷ Some of the mentioned variables determine the discount rate. For example, if the growth rate becomes negative due to the effects of climate change or of war, or for other reasons, there may be a case for negative discount rates (since future generations will then be worse off and more burdens should then be put on present generations in order to equalize across generations). On the other hand, if the growth rate of the world economy remains positive, the choice of the discount rate involves the ethical question of how much present generations, who will by implication be poorer than future generations, should pay for measures that benefit future generations and that may to some extent be taken by them instead.

Thus, the Court could not refer to a scientific consensus, but was required to choose between different economic theories.

¹⁴ Importantly, the so-called time discount factor was set at .1.

¹⁵ For a criticism of Stern's assumptions, see Weitzman (2007) and Nordhaus ((2007)). See also Pearce (2003), and (in defense) Stern (2014).

¹⁶ E.g. Pielke (2007).

¹⁷ For a recent analysis of how the social cost of carbon and the optimal policy of abatement is contingent on these assumptions, see e.g. Bremer and Van der Ploeg (2021).

It should be added that even if there did exist a scientific consensus about the need to limit temperature increases to 2 degrees Celsius, it would not have followed that the Dutch government should necessarily surpass the goals set within the EU quota trading mechanism by setting its abatement goals at 25% rather than at 20%. Other measures than abatement would be possible, such as spending more on research and development, or spending more on abatement in the developing countries. It may even be questioned whether it is at all effective for the Netherlands to set national goals concerning abatement of sectors that are encompassed by the European trading mechanism. The effects of such abatement are namely limited under a system of emissions trading due to the leakage effect which arises under an emissions trading system. If one country emits more, others will emit less, since the sum of emissions equals the sum of the quotas. That remains true to some extent after recent changes to the European Trading Mechanism. For this reason, it can be meaningless to consider a country's emission in isolation as the idea of the trading system is for some countries to abate less and others to abate more for total abatement to occur at the lowest possible cost. In effect, setting higher targets in some countries may defeat the efficiency purpose of the trading mechanism, which is to equalize marginal costs of abatement across countries. The Supreme Court did bring up this 'leakage effect' but dismissed it for being inadequately documented. Yet, the logical nature of the effect seems to require a logical refutation. In any case, the leakage argument illustrates the broader point that even if there were a scientific argument about the need for drastic action, how to act decisively would still constitute a complex decision problem.

2.2. The claim of political consensus

Perhaps to cut through the scientific disagreements, the Supreme Court also claimed a political consensus about the urgent need of keeping temperature increases below 2 degrees. In support, the Court referred to the many non-binding declarations that have been made at environmental summits. However, it is doubtful how informative such non-binding declarations are. Perhaps the politicians have not committed to binding goals (but as in the Paris accord mainly to binding procedures) because they have feared that the costs of achieving such goals could be very high. Moreover, there may have been a tendency for politicians to go along with the idealistic sentiment of such summits and to deliver politically popular declarations in a context where onlookers are likely to be oblivious or indifferent to the costs of the proposed measures. Therefore, it might be misleading to infer any real political consensus concerning the optimal policy from such declarations.

To conclude, the Court overstated the scientific and perhaps also the political consensus about the optimality (or necessity) for the Netherlands of abating by at least 25%, supposedly derived from the need of keeping increases below 2 degrees Celsius. There is in fact disagreement about the optimality of such a policy, and the issues involved require specialized knowledge, for instance of how to weigh the utilities of future and present generations.

Yet, the Court might have been of the view that the precautionary principle would in any case – despite theoretical disagreements – lead to the conclusion that the Dutch State was under an obligation to abate by 25%.

2.3. On the applicability of the precautionary principle

The Court stated the precautionary principle as follows (p. 18)¹⁸:

The fact that full scientific certainty regarding the efficacy of the ordered reduction scenario is lacking does not mean, given the due observance of the precautionary principle, that the State is entitled to refrain from taking measures. The high degree of plausibility of that efficacy is sufficient. The existence of a real risk of the danger for which measures have to be taken is sufficient to issue an order.

Thus, the Court interpreted the precautionary principle to mean that if there is a risk of disaster, and if there exist measures which can eliminate this risk, then the court should order the measures to be taken. However, as I shall now argue, this is not a satisfactory decision rule.

First, what exactly is a disaster? How many people must die before the government is required to prevent it? And how high should the probability of disaster be for actions to be required and should any measures be taken to counter the risk? If, for instance, the risk of one million people dying as a result of not taking a measure is 10^{-6} , and the cost of the measure is one billion dollars, then each expected life is saved at a cost of one billion dollars, a number much higher than that conventionally applied by authorities when making decisions concerning health and safety, and much higher than the number derived from people's revealed preferences (Viscusi (2008)).

The difficulty here is that the precautionary principle does not allow a trade-off between catastrophic risks and ordinary goods. This drawback has been shown more generally by Stefansson (2019), who writes in his introduction:

In this article I prove some impossibility results for two plausible formulations of the precautionary principle. These results illustrate the difficulty in making the precautionary principle consistent with the acceptance of any tradeoffs between catastrophic risks and more ordinary goods.

Moreover, the precautionary principle as commonly defined, does not offer us any guidance about how to make choices among policies that all include risks. Some risks will increase, others will decline if we spend massively on mitigating climate change. As one example, wind turbines on land are suspected of causing heart disease among neighbors due to noise. Does that mean that wind turbines fail the precautionary principle? Similarly, can we not apply nuclear energy under any circumstance, due to the small risk of nuclear accidents? As explained by Cass Sunstein ((2002), p. 1003):

The principle is literally paralyzing -forbidding inaction, stringent regulation, and everything in between. The reason is that in the relevant cases, every step, including inaction, creates a risk to health, the environment, or both.

This difficulty of the precautionary principle – its incoherence – has also been studied rigorously. Peterson (2006, 2007) has shown that the precautionary principle is incoherent in its most common

¹⁸ In <https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:HR:2019:2007>.

formulations, and that it cannot be used for rational decision making, since it does not live up to reasonable requirements of rationality.

That the precautionary principle cannot alone decide which policy to pursue is also indicated by the ways in which the principle is in fact implemented into EU legislation. The EU Commission has stressed that its implementation should be¹⁹:

based on an examination of the potential benefits and costs of action or lack of action (including, where appropriate and feasible, an economic cost/benefit analysis).

According to this view, the Court hence could not avoid a deeper analysis by referring to the precautionary principle.

To conclude, the Court could not meaningfully refer to the precautionary principle as dispensing with a closer analysis of the costs and benefits of different degrees of abatement.

2.4. On the applicability of human rights principles

Nor could the Court abstain from analysis by referring to the protection of human rights. Again, as argued above, spending trillions of dollars on CO₂ abatement will involve costs in terms of lower living standards, which especially in poorer parts of the world can cause millions of people to lead much less dignified lives. Such trade-offs between human rights and other 'goods' are made every day (we do not of course spend anything near total national income on health and safety) and call for analysis that weighs different interests in some way. While it may seem attractive to consider the issue of climate policy in a narrow setting of human rights, this setting conceals the real trade-offs. Also, it is not certain but needs to be demonstrated that very high levels of abatement will save more lives than it costs; lack of growth in the developing countries and higher costs of energy may lead to many deaths due to poor indoor climate, lack of safety at work, famines, etc.

Hence, the Court could not abstain from an analysis of costs and benefits and their proper discounting, with reference either to the precautionary principle or to human rights. But when such analysis is involved, the question arises whether the adjudication process is the right decision-making mechanism.

2.5. On climate litigation as a social decision-making procedure

When complex trade-offs are involved in the derivation of climate policies, there are drawbacks to leaving the choice to court adjudication. I shall consider four well-known drawbacks that are illustrated by the Urgenda verdict:

¹⁹ In Communication from the Commission on the Precautionary Principle, COM(00), available at <http://europa.eu.int/comm/dgs/healthconsumer/library/pub/pubO7-en.pdf>.

- 1) In civil trials, the court is limited to considering the evidence brought forward by the parties
- 2) The trial process is organized to render it capable of establishing (legal) facts not to address complex scientific issues
- 3) Judges are trained neither in the social nor in the natural sciences and may lack the necessary skills for making complex decisions regarding climate policy
- 4) Court verdicts take time to change

2.5.1. Courts are limited to considering the evidence brought forward by the parties

In a civil trial, the court is to some extent limited to considering the evidence brought forward by the parties. The extent to which this limitation applied to the Supreme Court in the Urgenda case can be debated. On the one hand, two advocates general of the Supreme Court delivered a broader analysis of questions of climate policy. On the other hand, as a matter of procedure, the Supreme Court was meant to only analyze the law, not the evidence, and could not dismiss the evidence as established by the Appeals Court unless it found the evidence incomprehensible (Bergkamp (2020), p. 90). Therefore, the limitation that was present at the level of the Appeals Court may have also influenced the decision by the Supreme Court.

The Urgenda case starkly illustrates this limitation, as the Dutch government with few, minor exceptions did not dispute the scientific evidence laid out by the plaintiffs. Perhaps the government did not wish to contradict its own strategy of being a forerunner in international climate policy. On this background, it might have been difficult for the government to bring up counterarguments based e.g. on Professor Nordhaus' or the Interagency Working Group's analysis.²⁰

Finally, in living up to new, more stringent regulation, the Dutch government has had to impose costs on Dutch farmers that some might view as disproportional to the effects obtained by greater abatement. It is not certain that courts were aware of these costs that might be avoided if, for instance, the Netherlands had chosen to buy more CO₂-allowances through the EU emissions trading system or if the Netherlands had secured more abatement in India or China. The size of the effects on Dutch farmers and the possible alternatives to greater Dutch abatement would likely have become known to the politicians during ordinary democratic debate but may perhaps have been beyond the view of the Dutch courts.

In general, courts are thus likely to be poorly informed about costs and benefits, which renders it especially problematic for courts to censor ex-ante regulation (which takes place before harm occurs). Courts have often shown reluctance to hold public authorities liable for harm under tort law, which becomes effectual after harm has occurred (ex-post) as the courts have not wished to substitute their views for that of democratically elected representatives of the people. But the potential negative consequences of uninformed court intervention are smaller under ex-post tort law than under ex-ante regulation. They are smaller for three reasons. First, compensation ex-post does not interfere as strongly with the allocation of resources; how to avoid liability is still left to the public authority. Second, choosing the right course of action generally requires more information than establishing ex-post whether a choice was negligent and caused harm. Third, compensation of ex-post harm can often have positive incentive consequences, even if the standard of negligence is set at a wrong level due to the lack of information of courts. Tort law can induce efficient incentives even under strict liability.

²⁰ Not to mention the analysis of Lomborg (2021).

Summing up, the Urgenda case hence illustrated a significant shortcoming of court proceedings for resolving issues of climate policy: the arguments made in such proceedings are those that the parties find it in their interest to bring forth, and there is no guarantee that all relevant arguments will be included. The fact that courts are likely to lack important information is especially critical when it interferes ex-ante, i.e. before harm has occurred.

2.5.2. The trial process is organized towards (legal) facts

The point just made is an instance of the more general point that court proceedings are geared towards establishing legal facts, and not towards addressing complex scientific issues. To address complex scientific issues, expert committees can be very useful as they can systematically investigate the scientific literature and discuss critical issue at necessary length. To enlist such (impartial) expert advice is difficult for a court, as a matter of institutional design. In the Urgenda case the courts were apparently not advised by experts in this manner but had to rely on what they saw as a scientific consensus expressed by IPCC. However, as I have argued above, one cannot infer from the IPCC reports that there exists a scientific consensus on the optimal extent of abatement. Economists disagree on the optimal tax on CO₂ emission, and it would be difficult for the courts to evaluate the causes and the extent of this disagreement without having recourse to the work of an expert committee.

Some of these comparative disadvantages of courts was eloquently expressed by Supreme Court Judge Ruth Ginsburg²¹ in one of the US Supreme Court verdicts which laid down the 'doctrine of political question', often leading US courts to dismiss cases of climate litigation:

It is altogether fitting that Congress designated an expert agency, here, EPA, as best suited to serve as primary regulator of greenhouse gas emissions. The expert agency is surely better equipped to do the job than individual district judges issuing ad hoc, case-by-case injunctions. Federal judges lack the scientific, economic, and technological resources an agency can utilize in coping with issues of this order. Judges may not commission scientific studies or convene groups of experts for advice, or issue rules under notice-and-comment procedures inviting input by any interested person, or seek the counsel of regulators in the States where the defendants are located. Rather, judges are confined by a record comprising the evidence the parties present. Moreover, federal district judges, sitting as sole adjudicators, lack authority to render precedential decisions binding other judges, even members of the same court.

2.5.3. Judges lack the necessary skills for complex decisions regarding climate policy

Social policy choices can be complex. Courts do make law and so are involved in policy choices that can have far ranging consequences. One can debate, as a general matter, whether courts are equipped for this role, but the difficulty becomes greater when policy choices are not of a local nature involving only the relative weight of two persons' or two groups' rights, but are

²¹ Opinion of the court in 564 U. S. (2011) 15. See also Judge Roberts' comments in *Chevron U. S. A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U. S. 837, 865–866 (1984).

macroeconomic and so require an understanding of complex social mechanisms as well as principles for weighing interests. The formulation of climate policy can require the understanding of cost-benefit and/or utilitarian analysis, and the weighing of interests of current and future generations. Moreover, it involves comparing many different policy instruments against each other: As mentioned, the Netherlands might contribute to abatement by buying up CO₂ allowances or by investing heavily in alternative sources of energy, or by ensuring greater abatement in third world countries. Courts are ill-suited for addressing such policy choices.

Also, at the level of understanding of the scientific evidence, one notes the following passage on the part of the Supreme Court (p. 9):

There is a direct, linear connection between the greenhouse gas emissions caused by humans, which are partly caused by the burning of fossil fuels, and the warming of the planet

In fact, the link is logarithmic. There is no reason to blame the judges for such errors. The problem lies at the systemic level as it would be difficult for any layperson to absorb the complexities of climate science within a relatively short span of time.

2.5.4. Court verdicts take time to change

The Urgenda case took its beginnings in 2015 and was finally decided by the Supreme Court at the end of 2019. Naturally, as the verdict directed the State to curb emissions already in 2020, the issue of reversing the verdict in view of new information has hardly been relevant. But if the verdict had set limits some years into the future, and if new information had revealed the assumptions behind the verdict to be clearly incorrect, it would perhaps have been difficult to override the verdict by passing a new law, since the verdict is based on the protection of human rights. A new case would perhaps then have to be brought before the courts, and their decision would be likely to take time.

3. Conclusion

The main point of this article has been to argue that climate litigation of the kind where courts decide on climate policies, i.e. decide on ex-ante regulation, such as in *Urgenda* (or in *Shell vs Milieudefensie*), is likely to lead to poor decisions. Essentially, the vague standards employed by courts, such as human rights and the precautionary principle, are largely inapplicable to the formulation of climate policies. Such policies require careful analysis and weighing of costs and benefits and cannot be deduced from deontological considerations or from the ill-defined precautionary principle. Moreover, the litigation process is ill-suited for bringing up all relevant arguments, as the process is geared towards the establishment of legal facts rather than towards a scientific investigation into the validity of competing theories. For one thing, in civil trials courts

are restricted to considering the evidence that litigants bring forth. Notably, in *Urgenda*, the Dutch government could not be expected to dispute facts or theories to which it was politically committed. And finally, the formulation of climate policies is an inherently complex task that judges are generally not educated for. For instance, choosing between existing theories requires an understanding of very intricate matters concerning the proper rate of discounting over time. Such understanding cannot reasonably be expected of judges.

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Moreover, courts seem to have been reluctant to interpret the right to life expansively in the domain of tort law. For instance, when a public authority has prioritized resources in a manner that turned out to cause preventable deaths, as when hospital resources have been badly allocated, courts have (at least in Scandinavian countries but also elsewhere) tended to be reluctant to hold the public authority liable. For example, in a Danish case²² a woman who had been anesthetized during an operation and who was not put under surveillance afterwards, went into a coma and suffered severe brain damage. This could have been averted if she had been surveilled, but the expense of a surveillance room had been saved on the municipal budget. While the saving of the cost of surveillance may well have been considered negligent under tort law, the Danish Supreme Court held that it was not for it to overrule a resource allocation decision made by the public authorities.²³ Nobody has criticized the Court's reluctance to encroach upon the political domain; it has only been debated whether the reluctance went too far. Many other cases of reluctance to hold public authorities could be quoted.²⁴ The point here is that courts have usually been reluctant to interfere even under the ex-post regulation of tort law, where the potential negative consequences of excessive court intervention are smaller than under ex-ante regulation. They are smaller for three reasons. First, compensation ex-post does not interfere as strongly with the allocation of resources; how to avoid liability is still left to the public authority. Second, choosing the right course of action generally requires more information than establishing ex-post whether a choice was negligent and caused harm. Third, compensation of ex-post harm can often have positive incentive consequences, even if the standard of negligence is set at a wrong level due to the lack of information of courts. Tort law can induce efficient incentives even under strict liability.

²² U 1985.368 H.

²³ Note that the Court was reluctant even though this was a case of 'real and immediate risk' to human life.

²⁴ There are other motives for not holding public authorities liable. One is that it may skew the incentives of public officials who may be over-deterred to not risk liability. Another is that incentives may not work, as taxpayers and not public officials ultimately pay the expenses of compensation. For a discussion, see Dari_Mattiacci et al. (2010).