Judges should remain judges and should not become scientists or policymakers

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Contemporary Climate Change Debates

A Student Primer

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13 Is legal adjudication essential for enforcing ambitious climate change policies?

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Summary of the debate

This debate considers what is the appropriate role for the courts as an actor in climate politics. **Eloise Scotford** argues that legal adjudication is inevitable and essential in enforcing ambitious climate change policies. She argues that courts have an essential role in ensuring that climate policies are delivered in a fair and legally accountable way, in deciding inevitable legal disputes and in expressing symbolic community statements relating to climate change. In contrast, **Marjan Peeters** and **Ellen Vos** contend that given the complexity and uncertainty in climate science, and the many interests affected by emissions reduction policies, courts are not equipped or entitled to replace political decision-making. The level of emissions reductions in a specific country, and the pathways for achieving those reductions, are primarily political questions and not legal ones.

YES: Because of the inevitability and necessity of legal disputes about climate change (*Eloise Scotford*)

Introduction

Legal adjudication is essential for enforcing ambitious climate policies, for two reasons. First, national courts have an inevitable role in our current international legal regime for responding to climate change. Second, the roles of courts and adjudication in legal systems represent essential functions in implementing and enforcing ambitious climate policies. The inevitable role of courts in enforcing climate change policies, particularly national courts, is driven by the nature of climate change and by the task now legally mandated to tackle this widespread social and environmental challenge through international law. Being a '**wicked problem**', climate change is inherently disruptive of regulatory and legal systems, giving the courts an inevitable role in adjudicating new legal questions and emerging social tensions that manifest through legal disputes (Fisher et al., 2017). Further, the **Paris Agreement** puts legal action at the national scale squarely in the frame of climate policy. This is the scale at which the jurisdiction of courts—and access to them—is more routine, heightening the role for national courts in delivering ambitious climate policy.

Not only is litigation concerning climate change inevitable, but the roles played by courts in adjudicating disputes relating to climate policy are fundamental. First, at least in constitutional democracies, courts have a fundamental constitutional role in holding governments to account. Thus, when governments commit to national climate policies—in the

form of **nationally determined contributions** (NDCs) under the Paris Agreement, or otherwise such as through national climate policies or statutes—national courts will play a role in ensuring governments honour their commitments. This is enhanced by the structure of the Paris Agreement, which shifts accountability for parties' climate policy commitments from international mechanisms (as occurred under the **Kyoto Protocol**) to the national level. Adjudicative processes themselves perform important roles in the climate change context. Courts must apply legal doctrines to legal disputes relating to climate policy that inevitably arise (their *dispute resolution* function), particularly where legal doctrines need to adapt or adjust to novel legal questions. Courts also give authoritative statements about those conflicts to the wider community (their *symbolic* function) and provide a lens for viewing the intricate social and economic implications of climate policy.

Two caveats or clarifications are important at the outset. First, there is no single type of legal dispute or court case relating to climate change. Cases can range from those that challenge national government climate policy generally, to those that concern the legal nature of rights created by regulatory schemes (such as an emissions trading scheme; see **Chapter 6**) or the determination of legal obligations when private individuals make bargains or arrangements against the backdrop of climate policy. This essay defines 'climate change cases' broadly, covering any national adjudicative processes that relate to climate policy in some way. These cases will vary in subject matter and legal form. They will be covered by procedural and jurisdictional rules, and constitutional constraints, that are specific to the jurisdiction involved. Second, in focusing on adjudication, not litigation, the chapter's argument is focused on the role of courts and other adjudicative bodies (such as tribunals) rather than litigation strategies that interest groups or parties may seek to pursue. There is a thriving community of those involved in strategic climate litigation, but this is dependent on the fundamental roles of courts and tribunals that apply and determine the law within legal systems.

The 'legally disruptive nature' of climate change: climate adjudication is inevitable

Climate change is legally disruptive. In a previously co-authored paper (Fisher et al., 2017), we outlined four characteristics of climate change that make it disruptive in a legal sense:

- its causes and consequences are polycentric;
- the trajectory of climate change is scientifically uncertain;
- it inherently gives rise to sociopolitical conflict (both as a phenomenon and through ambitious policy efforts to address climate change);
- it is a physically dynamic phenomenon.

Each of these aspects of climate change creates difficulties for legal processes and doctrines that assume a stable natural environment and relatively stable relational and political structures in relation to which legal rights and obligations operate. They also mean that legal disputes concerning the 'wicked' social and environmental phenomenon of climate change are inevitable. The law that applies to such disputes will not always be obvious, making adjudicative processes to determine the relevant law and to settle the positions of conflicting parties particularly important.

To exemplify this inevitability, let us consider ambitious climate policies that incentivise a transition towards low carbon industries of energy production. In any such energy transition, there will be winners and losers and government policies will manage these changes more or less well. If poorly managed, legal disputes will arise and are proper avenues for those with grievances. Those industries forgoing revenue-making opportunities will have economic grievances and may seek legal recourse for impaired legal rights (e.g. they may bring claims for breach of contract, infringed constitutional rights, or review of government action on grounds of legitimate expectations or other public law grounds). New industry players may also have economic grievances that manifest in legal disputes (as in the case of government feed-in tariffs that are quickly withdrawn due to oversupply). There might also be disappointed workers in high carbon emitting industries who lose jobs, or else citizens for whom energy costs rise quickly in an 'unjust' transition. Areas of law such as contract law, labour law and public law contain doctrines that will often be relevant in these kinds of circumstances. Even if well managed, major structural transition brings economic and social strain and legal arguments will arise. The economic, social and legal status quo is being unsettled by climate change and legal claims express that disruption. These arguments must be settled for climate policy to be properly implemented.

As another example, let us say that a national government has adopted an ambitious national climate policy to achieve **net zero emissions** of GHG gases by 2035, setting out this mitigation goal in a widely publicised government policy document. There is, however, no 'climate change department' in this country's government and existing government departments continue working within their siloed portfolios. In this particular country, the Department for Transport has been working on airport expansion plans for ten years and determines that the issue of inadequate airport capacity is now urgent to resolve, recommending that the country's biggest airport be expanded. In its view, the government's flagship climate change commitment is not a barrier to this proposed airport expansion, because it does not require that any specific policy or development must change. In the department's view, climate policy innovation can come from somewhere else—after all, this new airport expansion policy is in the public interest.

Here we see a direct policy clash between climate and transport policy. This policy mismatch within the existing structures of government can be argued about politically but, ultimately, there is a question of accountability. The courts are the central organ of legal accountability in many jurisdictions and political systems globally. In this example they would provide a key forum in which non-political actors could ask the government whether its airport expansion policy is rational. Such judicial challenges to proposed airport expansions have, inevitably, been instigated (e.g. in the UK regarding Heathrow[1] and in Ireland regarding Dublin's airport[2]).

These two examples each highlight how the radical change required by ambitious climate policies makes legal disputes inevitable. The large number of climate-related cases now being heard in courts around the world bears this out (Fisher et al., 2017). These examples show how such disputes are essential—both in determining where rights and liabilities lie between private citizens and in settling where public lines of accountability lie in governments.

The Paris Agreement: structuring national climate adjudication

This inevitable pressure on national courts is enhanced by the structure of the Paris Agreement 2015. With its hybrid legal architecture—an international treaty relying on and constructed by nationally driven action—the Paris Agreement's obligations are to be determined *and* implemented at the national scale. Granted, there are international accountability mechanisms within the Agreement. In particular, there is Article 13's non-punitive transparency mechanism to account for national action and support measures, subject to technical expert review, and Article 15's non-punitive facilitative compliance mechanism involving the establishment and operation of an expert committee. But there is no formal enforcement mechanism at the international level for the national commitments made by signatory countries under the Agreement. Domestic legal action fills this compliance void and is a critical forum for holding governments to account for their commitments under the Agreement. This is supported by Article 4(2), which provides that 'Parties *shall* pursue domestic mitigation measures, with the aim of achieving the objectives [of successive NDCs]' (UNFCCC, 2015). This is a mandatory requirement (not all obligations in the Agreement are expressed in such mandatory language), indicating that legal enforcement is appropriate and necessary and must be situated at some level in the Agreement's hybrid governance structure.

In this vein, there has been a rise in the number of cases in different jurisdictions around the world since the 2016 ratification of the Paris Agreement, with various NGOs or groups bringing public law claims (tailored to jurisdictional contexts) against national governments in Party countries. These claims challenge various aspects of national government climate policy for not being sufficiently ambitious when measured against the goals of the Agreement and/or NDCs. At the time of writing, cases of this nature had been launched at least in the courts of the European Union, Germany, Ireland and the UK.

The UK case in *R (Plan B and [others]) v Secretary of State for Business, Energy and Industrial Strategy* (2018)[3] demonstrates how succeeding in these cases can be difficult. Nevertheless, their agitating and publicising impact can be considerable, providing a mechanism for indirect enforcement. In *Plan B*, the claimant NGO argued that the Secretary of State's refusal in light of the Paris Agreement to revise the UK's 2050 carbon mitigation target—set in the Climate Change Act 2008 to require reduction of GHG emissions by 80% from the 1990 level—meant that the UK Government was in breach of its international law obligations. The case was ultimately unsuccessful on the grounds that the government had not behaved irrationally and had a wide discretion in determining its climate policy. However, in the meantime the government referred a question to the national Committee on Climate Change asking it to reassess the UK's 2050 emissions target. The committee recommended that the target should indeed be revised to a 'net zero' emissions target and, in June 2019, Prime Minister Theresa May announced that legislation had been laid before Parliament to revise the statutory target accordingly.

The role of courts: holding national governments to account for climate policy

Even beyond the governance structure of the Paris Agreement, national courts play a fundamental role in holding their governments to account for executing the laws that have been enacted and in applying their own policies properly. Again, the constitutional

and administrative law (that is, public law) frameworks for these legal accountabilities will vary in different jurisdictions. Some will have a formal written constitution against which public actions can be tested. Some will have public law doctrines developed over time and applied by the courts—whether based in ideas of reasonableness, relevance of considerations taken into account, rationality, legitimate expectations, procedural fairness, proportionality or other norms of good administration. And some will have codes or statutes that set out public law norms, which may include human rights (see **Chapter 11**). All these public law avenues are legal doctrines that embody and apply ideals of the rule of law, ensuring that those who govern us do so lawfully. The courts play an essential constitutional role in upholding these norms.

Thus, again, it is unsurprising that public law actions of various forms have been brought to hold governments to account for their existing climate policies or for pushing them to adopt more ambitious climate policies. Whether or not these actions are successful, this adjudicative function is essential for upholding the rule of law and good governance. And some actions have been successful. The Pakistani case of *Ashgar Leghari v Federation of Pakistan* (2015)[4] is a well-known case in which the Pakistan Government was found to have been taking inadequate climate action on human rights grounds. The domestic Pakistan court issued quite interventionist remedies requiring the government to improve its administrative arrangements for implementing its own climate policy.

Another very well-known case brought against a government challenging its climate policy is *Urgenda Foundation v The Netherlands* (2015).[5] Many different legal arguments were made in this case brought against the Dutch Government by an environmental NGO—arguments based in human rights, in the civil law doctrine of 'hazardous state negligence' and in EU and international law. Most of these arguments had legally novel aspects, whether on issues of legal procedure or liability. In both the lower District Court and on appeal in the Hague Court of Appeal, the State of the Netherlands was found to have adopted an unlawful national climate policy that was insufficiently ambitious in the short-term. In response to arguments that the court had overstepped its constitutional role in dictating Government policy in deciding this case, the Court of Appeal was clear that the state is not above the law. It needs to be held to account for any unlawful actions, particularly those involving breaches of human rights.[6]

The role of adjudication: dispute resolution and symbolism

In thinking about legal adjudication and climate change it is easy to fall into the trap of supposing that adjudication is simply an instrumental route for compensation and justice. However, that is a caricature of law and of the role played by adjudication in courts and similar fora (although compensation and justice are, of course, important). Legal adjudication plays multiple roles, including (1) applying applicable laws and doctrines to legal disputes; and (2) performing a powerful symbolic function for communities bound by the rule of law (Fisher et al., 2017). In relation to both of these functions, legal adjudication is inevitable and essential in enforcing ambitious climate change policies.

In terms of their *dispute resolution function*, courts are settling what the law is, whether in public law cases (as explained above) or in private law cases (where individuals, either people or companies, sue each other for some form of civil liability). This task can be straightforward, but often involves novel legal reasoning due to the disruptive nature of climate change (Fisher et al., 2017). Thus, in *Urgenda*, as indicated above,

different legal arguments were successful at the different stages of the litigation, involving novel legal reasoning. For example, it was not clear whether the Urgenda Foundation (representing Dutch citizens, but also citizens from other countries and future generations) should have standing to bring the legal claim in court. Standing doctrines are common issues of legal procedure, but there were novel facts to deal with in this climate context.

Similarly, arguments of causation were novel. Why was the Dutch Government being held accountable for *its* contribution to global climate change, which was relatively small and ultimately unconnected to any particular environmental harm? The court adapted the relevant test of causation to apply to this wicked environmental problem, acknowledging that applying existing tests of causation might mean that no country was responsible for climate change and its harmful consequences ('an effective legal remedy for a global problem as complex as this one would be lacking'; *Urgenda*, The Hague Court of Appeal). Whether courts will always adapt their legal procedures and doctrines to accommodate climate change in this way is subject to many factors and constraints of national legal culture, but ultimately a court needs to resolve the legal issues before it.

Resolving legal disputes between parties not only involves deciding and applying the law; it also sheds light on aspects of climate policy that might not otherwise be visible. The wide range of (sometimes quite technical) legal claims relating to climate policy demonstrates how the polycentric causes and implications of climate policy reach into very widespread spheres of social and economic life (see **Chapter 12**). For that reason again, climate adjudication—the settling of norms and rules in the intricate, everyday and widespread dealings of our societies and economies—is vital for delivering climate policy in a deep and socially transformative way (Bouwer, 2018).

The second way in which climate adjudication is vital for enforcing ambitious climate policy is through its *symbolic function*. In articulating disputes concerning climate policy, in hearing them within the established and respected processes of the courts, in finding facts and in establishing legal liability, courts send messages to their communities (local, national, global) in the cases that they hear and decide. In cases concerning climate change, adjudication often has huge social significance and resonance (Fisher et al., 2017). This can be demonstrated by the 2007 US case of *Massachusetts v EPA*,[7] which essentially concerned an issue of statutory interpretation of the US Clean Air Act (whether air pollutants included GHGs for the purposes of pollution regulation of vehicles). In the course of deciding the case, the Supreme Court stated that '[t]he harms associated with climate change are serious and well recognized'. The impact of this statement in a judgment of the US Supreme Court had huge symbolic significance, quite apart from the legal issue resolved in the case (Jasanoff, 2015). Climate change was a fact, and a serious issue, so said the court.

Similarly, the 2019 New South Wales Land & Environment Court case of *Gloucester Resources v Minister for Planning*[8]—a planning appeal confirming that permission should not be granted to construct an open cut coal mine—had huge symbolic value, resonating globally as a ground-breaking climate case. In fact, resolving the planning appeal in the reasoning of the case did not turn on the climate impacts of the proposed mine, but the judge's careful consideration of climate change issues in the judgment was nonetheless seen more widely as very significant.

Resolving climate-related legal disputes between parties also serves a symbolic function in a regulatory sense, due to the signalling function of decided cases. In private law claims in particular—for example, in contract, tort, or company law—the outcomes of

these cases send signals about how businesses, individuals and other actors should be acting in relation to climate change. For example, in company law and pensions law, claims might be made about whether companies or pension funds have properly taken into account climate change factors in applying the requirements of corporate reporting or pension investing. At the time of writing, these kinds of private law claims were being brought in Australia and being considered elsewhere. The findings in such cases settle claims brought by individual shareholders or investors, but they also send a much wider message about how companies and pensions funds *should* operate in relation to climate change issues. These individualistic private law claims can provide a 'regulatory pathway' to delivering ambitious climate policy (Peel and Osofsky, 2015) and thus are an essential aspect of enforcing ambitious climate policies.

Conclusion

The essential and inevitable nature of adjudication in enforcing ambitious climate policies does not mean that court actions or judgments alone will deliver ambitious climate policies. Far from it. It is fundamentally the architecture of a state's government and its administration that will deliver climate policies (see **Chapter 12**). However, courts have a critical role on holding that public action to account and in confirming and expressing the obligations of myriad actors (public and private) in relation to the widespread social transition required by ambitious climate policies.

There is a risk that climate adjudication is misunderstood or that it becomes the object of too many political hopes. Court cases are often seen as either 'wins' or 'losses' for climate policy. Judges can incorrectly be seen as saviours or untamed activists in the climate cause, as hinted at below by **Marjan Peeters** and **Ellen Vos**. These are misperceptions of the roles of courts and adjudication. This is not to deny that courts face challenges in applying legal principles and doctrines to disputes involving climate change, which are often legally disruptive due to the polycentric, socially contested, scientifically uncertain and dynamic nature of climate change. But the proper and fundamental roles of the courts should always be kept in mind. Courts must decide cases that come before them. They must declare what the law is. And they must hold governments to account. In doing so, they are often deciding very ordinary issues of legal doctrine or interpretation, albeit in a very complex context which can make reasoning novel and challenging. Their job in adjudicating climate disputes is all the more important for that. Legal issues must be settled if climate policy is to be enforced and, in the process, its full implications are rendered visible.

In the wake of ambitious climate policy, climate adjudication is inevitable and essential in societies subject to the rule of law.

NO: Judges should remain judges and should not become scientists or policymakers (*Marjan Peeters and Ellen Vos*)

Introduction

Enormous societal and technological transformations are needed at all levels to address the challenges of climate change: at local, national, European and international scales. To this end, the international climate treaty regime provides a legal framework for cooperation among states in order to achieve the aim of holding the increase of global average

temperature well below 2°C and to pursue efforts to limit this to 1.5°C (as stated in article 2 of the Paris Agreement; UNFCCC, 2015). Scientific insights provide support for this international policy ambition codified in treaty law.[9] However, the Paris Agreement does not delineate what emissions reduction specific countries have to undertake and the role of courts in this undertaking is therefore limited.

Certainly, courts play an essential role in holding governments to account, by testing the legality of their decision-making. Next to this, courts can also determine liability of natural and legal persons when they cause damage to others. However, courts can also be called upon to declare as 'unlawful' governmental emissions reduction targets that are not the most ambitious for protecting the climate system or to order governments to adopt a certain emissions reduction policy. This raises a fundamental question about whether courts are the right institutions to take these kinds of political decisions.

Core arguments will be presented in this essay that explain why courts do, and should, face limits when adjudicating in the field of climate change, including human rights adjudication. More particularly, we will show why courts are not in the best position to decide on questions relating to the *rate* at which a country should reduce its total emissions, nor *how* a certain volume of emissions reduction should be realised. Before proceeding, we need to point out important methodological restrictions in our argument. Around the world, national jurisdictions vary regarding the role of the courts, including the question of whether public interest cases, such as the importance of avoiding dangerous climate change, can legitimately be brought to the courts (see for example the case of Switzerland: Bähr et al., 2018). Moreover, judicial adjudication largely depends on the specific circumstances and strategy of a claim. The arguments offered here find their roots in the notion of the rule of law on the European continent and, more specifically, within the European Union and its Member States.[10]

Judicial review

Judicial review of governmental decisions, including legislation, is an important aspect of a legal system operating under the rule of law (Türk, 2009: 1). Access to courts is necessary to ensure that governments respect human rights—such as the rights codified in the Charter of Fundamental Rights of the European Union (European Union, 2000)—and that they adhere to the often more specific rules, such as environmental laws, adopted through democratic processes. However, courts do not have the task to fill all the gaps that democratically accountable decision-makers leave open. Not all societal issues are 'justiciable'. This means that if authorities take debatable decisions—in the sense of not providing the highest level of welfare possible to society (if that level can at all be determined)—focus should be placed on how to improve decision-making in the legislative and the executive branches of government, instead of immediately reverting to a court to overturn that decision.

Political decisions on how to address climate change

The main issues that need to be decided in order to address climate change are of a political nature. For instance, the IPCC lists various portfolios of mitigation measures for achieving the 1.5°C warming target, thereby 'striking different balances between lowering energy and resource intensity, rate of decarbonisation, and the reliance on carbon dioxide removal' (IPCC, 2018: 12). This implies that important policy choices

have to be made when determining the direction a specific country will take for combating climate change. In the course of achieving this direction, optimal solutions for each specific country need to be determined, for example the roles of nuclear energy, carbon capture and storage and/or renewables (see **Chapter 7**). Given the available options, and their relative impacts on the environment, economy and society, it is an explicitly political decision as to the total emissions reduction level a country will adhere to by a given date. If judges would engage in such decision-making, they could appear to be the primary standard setters in society. This is not in line with case law of the Court of Justice of the European Union (CJEU), which gives quite some leeway to political decision-making in complex socioeconomic matters, including in the environmental area. Judicial practice shows that the CJEU will only intervene in case of a manifest error of appraisal by the authorities, particularly by the EU legislator.

The following two examples illustrate that this practice is also evident in the field of EU climate law, more particularly by means of a rather light judicial review of legislation adopted by the EU institutions. In a seminal case decided in 1998, an appellant *inter alia* argued that a regulation on substances that deplete the stratospheric ozone layer had too narrow a scope because it did not take into account the Global Warming Potential (GWP) of the substances involved. The CJEU only investigated whether there was a manifest error of appraisal and concluded that this was not the case (C-341/95, Bettati v. Safety HiTech, para 35, 53).[11]

In another core EU climate law case, decided in 2008, the CJEU endorsed a step-by-step approach taken by the EU legislator, which meant that the legislator was not obligated to include all relevant GHG emitters at once in its legislation. Basically, the EU legislator was granted 'a broad discretion where its action involves political, economic and social choices and where it is called on to undertake complex assessments and evaluation' (C-127/07, Arcelor para 57).[12] This does not imply that the court does not assess at all the decision-making of the governmental legislator, but merely that it checks whether the choice of the legislator is based on 'objective criteria appropriate to the aim pursued by the legislation in question' and whether the legislator took 'fully take into account all the interests involved' (Arcelor para 58–59). Nonetheless, when carrying out its assessment, the CJEU defers largely to the legislator by assessing that the exercise of its discretion 'must not produce results that are *manifestly less appropriate* than those that would be produced by other measures that were also suitable for those objectives' (Arcelor para 59, emphasis by authors).

Even Christopher Stone, who in 1972 already called for establishing a strong protection of the environment before the courts in his seminal publication 'Should trees have standing?', points at the limits of the courts in regard to climate change. According to Stone, the political question of how much to reduce GHGs is ill-suited for courts to adjudicate (Stone, 2010: 34, 53). Furthermore, there is even concern that in judicial decision-making on rather open-ended issues personal beliefs may play a role in developing the outcome of a case. (In practice this is hard to determine, since judges will be unlikely to reveal such influence; see Bergkamp and Hanekamp, 2015; Petersen, 2017: 359–360.)

Nonetheless, claims aiming to achieve 'more political action' on climate change are now widely submitted before courts around the world. Case law will show where, in various jurisdictions, the line will be drawn between the political and judicial sphere. Peculiarly, it is the courts themselves who need to draw this line. Yet if courts move in such a direction that politicians (or society at large) would judge as over-stepping their perceived role, this may result in governments either neglecting court decisions or else

taking measures to restrict the powers of the court (for examples at the international level see Petersen, 2017: 364). In summary, when courts become dominant in the sense of taking the lead with regard to the content of state policymaking, states may try to find ways to escape or mitigate this power.

Moreover, at the international level there is no clear legal criterion that determines what emissions reduction effort a country has to deliver. The Paris Agreement (see article 4) obliges parties to communicate their nationally determined contributions (NDCs) to emissions reduction. It states that developed countries should continue to take the lead by undertaking economy-wide absolute emissions reduction targets. If parties want to escape from this agreed effort, they can seek to leave the Paris Agreement, as the USA has already notified to do. Also the International Court of Justice (ICJ), if it ever will be called upon in a climate case, needs to operate carefully, as noted here:

> [...] the potential benefits of relying on the rule of law must be balanced against the potential disruptions such an adjudicative approach could cause to the multilateral effort of a treaty-based solution that aims at addressing both the causes and the effects of climate change.
>
> (Voigt, 2016: 156; referring to Bodansky, 2016)

Practice shows that Japan and France have limited the jurisdiction of the ICJ following environmentally related decisions on, respectively, whale catchments and nuclear tests (Petersen, 2017: 364). Such boomerang effects—weakening the power of courts after taking, in the eyes of the condemned, a too interventionist role—are also not unimaginable for the EU. If the CJEU were to decide that the emissions reduction commitments of individual Member States as adopted by EU legislation are insufficiently ambitious, this could spur even more resistance within national orders against this EU judicial influence.[13]

Role of judges in cases of complexity and scientific uncertainty

Although climate science continues to progress, substantial uncertainties about the course of future climate remain (see **Chapter 2**). For instance, the way global temperature is measured affects the estimated remaining carbon budget and 'uncertainties in the size of these estimated remaining carbon budgets are substantial and depend on several factors' (IPCC, 2018: 14). While the **precautionary principle** legitimates environmental protection when the danger cannot be sufficiently proven, the precise intensity and form of governmental action for such protection needs to be determined within a sphere of uncertainty and by balancing different interests, including costs. The value and application of the precautionary principle is the subject of an intense scholarly debate. This ranges from support for a strict approach to the avoidance of risks, on the one hand, to warnings against over-regulation on the other (De Sadeleer, 2016). The statement that 'climate change today is not a matter of precaution, but one of prevention' stands in contrast with the uncertainties pointed out by the IPCC (Bähr et al., 2018: 208).

Parties to the Paris Agreement have committed to take climate action which they have to determine in their national plans. But the precise measures for each country have to be developed within a context of uncertainty. The consequences of specific policy choices—including the side effects on the economy, the environment and society—can be hard to predict. Such is the case, for example, with afforestation as a means to capture CO_2 from the

atmosphere. While the Paris Agreement implies that climate action has to be taken by state governments (see **Chapter 12**), there is no single solution for how they should do so. Consequently, given the scientific uncertainties, but also the many interests at stake when deciding on (international, European and) national climate policies, judges are poorly equipped to assess the merits of a climate policy that is adopted through the democratic process.

When considering the best policy options in complex matters other mechanisms for evaluation and deliberation exist. These include, for example, the establishment of scientific or expert committees or agencies, or carrying out impact analysis of different proposed policy measures. Such procedures can inform governments on possible policy options—including their risks, although even the risks are not always known—which can then be debated through democratic process. Such mechanisms may not work perfectly and of course need to be critically scrutinised by independent scholars but, given the inevitable need for risk trade-offs, they would seem a better fit than judicial decision-making for the adoption of climate policies in democratic societies.

A further concern relates to the question of to what extent judges are capable of engaging with climate science in their decision-making. Studies have pointed to potential failures related to the understanding of the limits of science, including awareness that scientific consensus is a social construct (see **Chapter 9**) (Bergkamp and Hanekamp, 2015: 107). In legal practice, courts assess whether decision-makers are duly prepared, including in the use and interpretation of scientific studies. Courts are indeed important to guide the policy process, for instance by checking whether public participation in administrative decisions was secured (e.g. the Aarhus Convention, 1998) or whether there is appropriate disclosure of scientific advice and of impact analysis reports. Such a role for the courts does not mean, however, that the courts themselves will *impose* a certain reduction percentage in emissions on a government or order a certain policy measure to be taken.

Case law from the CJEU shows that, in general, the court increasingly enters into testing whether (administrative) decisions are properly based on relevant scientific information. They thereby function as an 'informational catalyst' (Scott and Sturm, 2007; see Vos, 2013: 144, for a rather positive appraisal of this development). This development increases the possibilities of the court to hold governments to account. Nonetheless, this judicial approach to information scrutiny needs to be further discussed by examining its application in the case law. A core question in this regard is whether the judges—who are educated as lawyers and generally have no specific expertise in the often complicated matter of scientific knowledge—are capable of assessing the proper use of science in the governmental decision-making.[14] One may wonder to what extent judges, if they are to move to a more intensive testing of how science is used for substantive policymaking, are in fact capable of understanding complex science. Specifically in the case of climate change, one can easily see that lawyers convened in courts, even if they are the highest qualified ones, usually have not been educated as climate scientists. This is the basis of our argument that judges should remain judges (Vos, 2013).

Role of judges in cases of fundamental rights and climate change

In the well-publicised Dutch *Urgenda Foundation v The Netherlands* case (see note 5), the court *ordered* the State of the Netherlands to achieve a more ambitious GHG reduction percentage than it is legally obliged according to EU law. The EU law dimension is a complex feature of this specific case and one which needs further clarification in future

case law (Peeters, 2016). The Dutch Appeal Court took human rights (see **Chapter 11**), particularly *the right to life* and *the right to private life* as enshrined in the European Convention on Human Rights, as a legal basis, applying 'a particularly far-reaching interpretation of these standards' (Fahner, 2018).

This unprecedented judicial approach is truly unique. It clearly deviates from the judicial practice developed by the European Court of Human Rights which generally does not 'dictate precise measures which should be adopted by States in order to comply' with their human rights obligations (Preston, 2018: 158). Judicial adjudication in the case of climate change, particularly where it concerns the total emissions reduction to be pursued by a state, is problematic for another reason. It is hard to determine the direct relationship between GHGs emitted from one place and one time and the damage that may happen at another place at another time (see **Chapter 3**) (this also in view of adaptation measures that could have been implemented, for example against floods or heatwaves). In this vein, legal scholars have argued that it is hard to see how the extra reduction of emissions of a few percentage points by the Netherlands—as ordered in the Urgenda case—would significantly avoid the serious risk for the (Dutch) people of loss of life or disturbance of family life (Backes and van der Veen, 2018).

In sum, in view of the fundamental debate on how to strike a balance between democratic and judicial powers, it is questionable whether courts can legitimately award a claim for more stringent emissions reduction based on human rights provisions. By means of *prescribing* specific country-wide emissions reductions, such court decisions intervene into 'macro-environmental' decisions adopted by the democratically accountable legislator. On the other hand, human rights might have an important role to play for demanding specific governmental action to provide protection against natural disasters that find their roots in human-induced climate change, such as building dykes to be protected against floods.

Conclusion

Given the enormous and serious consequences that are projected to be caused by climate change, particularly if the increase of temperature rises (much) above 1.5°C, law is being called upon to play its role in the fight against climate change. Some voices are therefore calling for existing concepts such as causation in liability law to be adjusted to ease the possibility of letting polluters pay damages to victims of climatic disasters (Hinteregger, 2017). However, in our view this does not imply that courts should act as the primary standard setter on how to protect the climate system. The questions to be answered regarding the level and precise methods of emissions reduction are predominantly of a political nature, not a judicial one. Moreover, climate science and its embedded uncertainties are extremely complex for judges in courtrooms to understand.

Courts can hold states accountable for legally binding commitments, such as when an EU Member State does not implement a GHG emissions reduction target imposed by EU law. Courts are also important for judging the lawfulness of governmental penalties on emitters if they breach the emissions reduction obligations imposed on them. Victims can seek to use liability law to hold emitters to account for paying costs of the prevention and occurrence of damage related to human-induced climate change, although as yet it is an arduous task to achieve a successful outcome. Depending on claims submitted to them, courts can also force governments to collect and provide information on potential climate developments and possible risks. They can force governments to use adequate information and public participation procedures when developing their climate policies

and legislation and decisions (Preston, 2018: 154; Aarhus Convention, 1998). Finally, courts can play a meaningful role in spurring governments to develop proper climate policies, particularly by requiring that those decisions are duly prepared and based on relevant information.

But there are important arguments against courts becoming the standard-setters for determining the level of emissions reduction and for deciding on the ways these reductions should be achieved. Courts have to test the legality of governmental decision-making, but they should refrain from becoming political decision-makers themselves.

Further reading

Bodansky, D. (2016) The legal character of the Paris Agreement. *Review of European, Comparative, and International Environmental Law.* **25**(2): 142–150.

This article assesses to what extent the Paris Agreement is legally binding on states—and therefore offers a useful perspective of the role of national courts in adjudicating on climate change policies. Bodansky argues that legal bindingness can be a double-edged sword if it leads states not to participate or to make less ambitious commitments. The Paris Agreement is significant beyond merely its legal status.

Fisher, E. (2013) Climate change litigation, obsession and expertise: reflecting on the scholarly response to *Massachusetts v EPA*. *Law and Policy.* **35**(3): 236–260.

This article reflects on why legal scholars have obsessed and become preoccupied with climate litigation in their research, focusing on writing about the high-profile US Supreme Court case of *Massachusetts v EPA*. Fisher probes the different narratives at play when legal scholars are reflecting on climate litigation and what legal expertise is implicated when they do so.

Peeters, M. (2016) Urgenda Foundation and 886 Individuals vs the State of the Netherlands: the dilemma of more ambitious greenhouse gas reduction action by EU Member States. *Review of European, Comparative & International Environmental Law.* **25**(1): 123–129.

This article offers a detailed assessment of the remarkable decision of a Dutch lower civil court to order the State of the Netherlands to reduce its greenhouse gas emissions by 25% by 2020. The court decision deals with the fundamental question of the extent to which a civil court can intervene in environmental decision making, particularly where this concerns the national policy of a European Union Member State.

Sabin Centre for Climate Change Law: Climate Change Litigation Database. Available at: http://climatecasechart.com. Accessed 7 July 2019.

This is an extensive database of court cases around the world involving climate change in some way. It divides the cases into public and private law claims and provides summaries of the cases and links to court documents where available. You might reflect on what definition of 'climate change case' is used in compiling this database.

Setzer, J. and Vanhala, L. (2019) Climate change litigation: a review of research on courts and litigants in climate governance. *WIREs Climate Change.* **10**(3): e580.

This is a wide-reaching overview, from a political science perspective, of academic research concerning climate litigation and courts. It makes arguments about where there is scope for future research concerning the conditions under which litigation informs climate governance.

Follow-up questions for use in student classes

1. What is the function of law and adjudication in relation to climate change policy? (Or why does law matter?)

2. Are courts capable of deciding the emissions reduction level that a country should adhere to? Instead, what do you think of courts acting as 'informational catalysts' by assessing whether governments have properly made use of scientific information for their substantive decisions on the reduction of GHGs?
3. Should the emissions reduction commitment of a specific country be made dependent on what other countries do? Suppose that certain countries do not adhere to the most ambitious GHG emissions reduction policies. Could that serve as a (legal) argument for a country with a comparable economic situation also not to adhere to an ambitious level of GHG reduction, but only to a comparable one?
4. Who are most likely to be motivated to bring cases relating to climate change in the courts? (Think broadly!) Who is most likely to have funding to bring climate cases in the courts?
5. What has been the most recent 'climate case' to capture global attention? Is this attention positive or negative, and is this justified?

Notes

1 *R (Spurrier) v Secretary of State for Transport and others* (2019) EWHC 2070. Available at: http://www.bailii.org/ew/cases/EWHC/Admin/2019/1070.html. Accessed 7 October 2019.
2 *Friends of the Irish Environment CLG v Fingal County Council* (2017) IEHC 695. Available at: https://elaw.org/friends-irish-environment-clg-v-fingal-county-council-2017-iehc-695-nov-21-2017. Accessed 19 July 2019.
3 *Plan B and [others] v Secretary of State for Business, Energy and Industrial Strategy* (2018) EWHC 1892 (Admin). Available at: www.bailii.org/ew/cases/EWHC/Admin/2018/1892.html. Accessed 19 July 2019.
4 *Ashgar Leghari v Federation of Pakistan* (WP No 25501/2015), Lahore High Court Green Bench – note orders of 4 Sept and 14 Sept 2015. Available at: https://elaw.org/PK_AshgarLeghari_v_Pakistan_2015. Accessed 19 July 2019.
5 *Urgenda v The Netherlands* (2015) The Hague District Court. ECLI:NL:RBDHA:2015:7196. Available at: http://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2015:7196. Confirmed on appeal in The Hague Court of Appeal, 9 October 2018. Available at: http://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:GHDHA:2018:2610. Accessed 19 July 2019.
6 Ibid (Court of Appeal). At the time of writing (October 2019), Urgenda was heading for final appeal in the Supreme Court of the Netherlands, the highest court of appeal.
7 *Massachusetts v EPA* 549 US 497 (2007). Available at: https://supreme.justia.com/cases/federal/us/549/497/. Accessed 19 July 2019.
8 *Gloucester Resources v Minister for Planning* (2019) NSWLEC 7 (New South Wales Land and Environment Court). Available at: http://climatecasechart.com/non-us-case/gloucester-resources-limited-v-minister-for-planning/. Accessed 19 July 2019.
9 Moreover, according to the IPCC, limiting global warming to 1.5°C would require 'rapid, far-reaching and unprecedented changes in all aspects of society', and a temperature increase higher than 1.5°C exaggerates 'the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems'. IPCC Press release October 8, 2018. Available at: www.ipcc.ch/site/assets/uploads/2018/11/pr_181008_P48_spm_en.pdf. Accessed 19 July 2019.
10 For this essay we present our arguments in a simplified way and do not necessarily reflect the nuanced analysis we would develop in a more elaborated academic publication.
11 *Bettati v. Safety HiTech Srl* (1998) Court of Justice of the European Union. ECLI:EU:C:1998:353. Reports of cases 1998 I-04355.
12 *Société Arcelor Atlantique et Lorraine and Others v. Premier ministre, Ministre de l'Écologie et du Développement durable and Ministre de l'Économie, des Finances et de l'Industrie* (2008) Court of Justice of the European Union. ECLI:EU:C:2008:728. Reports of cases 2008 I-09895.
13 In some jurisdictions, courts act as regulators, such as in India and in Pakistan (Preston, 2018: 148–150). It falls beyond our expertise to discuss why this is legitimate in these specific countries.

14 For an example of the struggle judges face in understanding complex health or environmental issues see: Vos, E. (2004) Antibiotics, the precautionary principle and the court of first instance. *Maastricht Journal of European and Comparative Law.* **11**(2): 187–200. It merits further discussion of whether courts need to be assisted by appointed scientists and also further assessment of whether scientific advice has been duly taken in to account by the policymakers.

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