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Symposium Article

Can the Paris Agreement Help Climate Change Litigation and Vice Versa?[†]

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Abstract

Domestic climate change litigation is prospering across the globe to the extent of becoming a transnational phenomenon of growing importance. At the international level the Paris Agreement, although still in its infancy, has been established as the core element of the climate change governance framework. This article explores the still opaque relationship between domestic climate change litigation and the Paris Agreement. It is argued that dynamic interaction between domestic litigation and the Paris Agreement may improve the overall efficacy of both regimes. On the one hand, an examination of the Paris Agreement's architecture and provisions reveals pathways that are already being used or can be explored further in litigation. On the other hand, litigation can assist and complement the Paris Agreement with regard to its implementation and progress towards its overall goals. The result may deliver more than a multi-level perspective on climate change law. As it captures the law in action on different levels, the proposed 'cross-level' approach has due regard to the implications of the mutual supportiveness or complementarity of legal tools. It also thereby responds to the concern of whether the law can be of significant benefit in addressing complex global issues like climate change.

Keywords: Climate change litigation, Paris Agreement, Urgenda case, National courts

1. INTRODUCTION

The question of whether the conclusion of the Paris Agreement, ¹ a treaty under international law, is a sufficient assurance that standards in climate change mitigation or

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Paris (France), 12 Dec. 2015, in force 4 Nov. 2016, available at: http://unfccc.int/paris_agreement/items/9485.php.

adaptation will in fact be implemented, monitored, and enforced has been widely debated. Doubts may be rooted in, for example, the non-binding character and discretionary formulation of many of the Agreement's provisions or the lack of political commitment in respect of its implementation and enforcement.² It is certainly true that the effectiveness of the Paris Agreement depends on the choice, design, and enforcement of substantive measures taken at the national level. This is notwithstanding a sophisticated international transparency and accountability framework, and parallel consideration of certain binding and non-binding international standards. At domestic levels, climate change litigation is prospering across the globe to the extent of becoming a globally visible transnational phenomenon of growing importance. Within the last decade, adjudication and liability in climate change matters has transcended the academic realm and gained a foothold in contemporary practice across numerous jurisdictions.³ Consequently, litigation has become a transnational feature of climate change governance. This domestic litigation in the era of the Paris Agreement may open up a different perspective on climate change law – one that is 'cross-level' rather than international and national, focuses on interactions rather than the legal normativity of single instruments, and seeks to identify possible synergies between international and domestic lawmaking and adjudication.

Against this background, this article explores the still opaque relationship between the Paris Agreement and domestic climate change litigation in its manifold shapes and domestic coinages, both conceived as legal tools for effective climate change mitigation and adaptation. Taking an instrumental approach, the hypothesis is that these tools are indeed mutually integrable: the goals, the architecture based on nationally determined contributions (NDCs), transparency standards and oversight mechanisms of the Paris Agreement, and the review of climate change-related domestic measures in national courts may functionally interact, thus contributing to the efficacy of climate change governance.

For this purpose, firstly, this article will explore the discernible domestic turn within the current international framework of climate change law and governance and its reflection in domestic litigation. Secondly, it will examine how the objectives and provisions of the Paris Agreement may be operationalized and harnessed in domestic climate change litigation. The focus here is directed towards national courts as the fora for the

² Cf., e.g., D. Bodansky, J. Brunnée & L. Rajamani, *International Climate Change Law* (Oxford University Press, 2017), pp. 249–50. Regarding commitment to achieve the collective objectives cf. B. Mayer, *The International Law on Climate Change* (Cambridge University Press, 2018), pp. 234–5.

³ Ten years ago, litigation beyond technical issues relating to climate change was more of a theoretical possibility than a feasible strategy: see, e.g., J. Gupta, 'Legal Steps Outside the Climate Convention: Litigation as a Tool to Address Climate Change' (2007) 16(1) Review of European Community & International Environmental Law, pp. 76–86, at 78.

Ibid., p. 76 (describing a governance framework comprising a 'growing set of symmetric and asymmetric concentric circles of governance, where even actions that are seen as ostensibly independent are either rooted in, or develop in reaction to, the core governance framework. At the core of this governance framework is the United Nations Framework Convention on Climate Change (UNFCCC), its Kyoto Protocol and the numerous decisions of the UNFCCC Conference of the Parties'). Elaborating further on the transnational governance potential of climate change litigation, see also J. Peel & J. Lin, 'Transnational Climate Litigation: The Contribution of the Global South' (2019) 113(4) American Journal of International Law, pp. 679–726, at 695–700.

adjudication of actions of mitigation and adaptation, which under the Agreement's architecture must be determined and conducted at the national level. Primarily, it will look at how the Paris Agreement helps litigation in holding states responsible for adopting and implementing mitigation action. The article will then analyze how domestic climate change litigation may improve the efficacy of the Agreement. The article will conclude that, besides opening an interesting perspective on the relevance of legal instruments, the interaction between the Paris Agreement and domestic litigation is better suited than any singular regulation to achieve effective climate change mitigation and adaptation. Domestic climate change litigation plays a particularly important role in maintaining and strengthening these linkages.

2. THE DOMESTIC TURN IN INTERNATIONAL CLIMATE CHANGE LAW

2.1. The Transnational Management Agenda of the Paris Agreement

While both the Paris Agreement and the Kyoto Protocol⁶ to the United Nations Framework Convention on Climate Change (UNFCCC)⁷ are international treaties and hence formal sources of international law, there are some substantial differences between them. A significant difference lies in the imposition of substantive obligations concerning the mitigation of climate change. While the definition of national contributions under the Kyoto Protocol was placed in the hands of international law, individual targets and reduction pathways under the Paris Agreement are instead determined at the domestic level. On the difficult path towards negotiating international climate change law, parties thus have departed from the aspiration to internationally regulate and justly distribute such substantive obligations 'top down' to building more on self-commitment and self-differentiation. The current and future role of international climate change law, therefore, lies in the promotion and management of initiatives at the national and sub-national levels.

A closer look at the Paris Agreement reveals why it resembles a central legal management tool for global efforts concerning climate change mitigation and adaptation. ¹⁰ It

Naturally, climate change litigation is not limited to the domestic level; there might even be prospects for fruitful litigation before international courts: see, inter alia, P. Sands, 'Climate Change and the Rule of Law: Adjudicating the Future in International Law' (2016) 28(1) *Journal of Environmental Law*, pp. 19–35; see also Mayer, n. 2 above, pp. 239–43.

Kyoto (Japan), 11 Dec. 1997, in force 16 Feb. 2005, available at: http://unfccc.int/resource/docs/convkp/kpeng.pdf.

New York, NY (US), 9 May 1992, in force 21 Mar. 1994, available at: https://unfccc.int/resource/docs/convkp/conveng.pdf.

⁸ Cf., e.g., Art. 3(1) Kyoto Protocol; see also Bodansky, Brunnée & Rajamani, n. 2 above, p. 163; for a more relativistic understanding see H. van Asselt & F. Zelli, 'International Governance', in A. Jordan et al. (eds), Governing Climate Change: Polycentricity in Action? (Cambridge University Press, 2018), pp. 29–46, at 31.

⁹ Cf. Bodansky, Brunnée & Rajamani, n. 2 above, pp. 213–5, 223; cf. Mayer, n. 2 above, pp. 47–9.

Contrasting a 'managerial approach' to an 'enforcement model': see Bodansky, Brunnée & Rajamani, n. 2 above, p. 26.

formulates an internationally agreed collective goal, ¹¹ but it relies on the national determination of individual contributions to mitigation and adaptation; 12 institutionalized compliance review is limited and is equipped only with a facilitative non-compliance procedure; 13 and parties' actions entail no liability established under the treaty itself with regard to loss and damage. 14 On the other hand, there is a high degree of detail for procedural obligations and a sophisticated 'ratcheting mechanism' that is designed to influence individual states' decision making. 15 This mechanism is accompanied by a high standard of transparency established by the Paris Agreement. 16 Parties are also required to harmonize their NDCs and are expected to cooperate in implementation of mitigation and adaptation measures. 17 Therefore, decision making is not left to the unlimited discretion of each state; collective goals, international standards, and transnational processes are established to guide individual efforts. In assessing the Agreement, we have to look at it from a different perspective from that of assessing a specific, rule-based law. The Paris Agreement manifestly focuses on the management of cooperation, administration of the various national efforts, and generation of review processes in view of a collective goal. Thus, normative and functional interlinkages and interactions between the international and the national levels may be of particular relevance.

2.2. Domestic Climate Change Litigation: A Global but Multifaceted Phenomenon

Political institutions have been and probably will continue to be the dominant actors in the field of climate change, at both the international and national levels. Over the last two decades, however, the role of judicial organs and, in particular, domestic courts has evolved significantly. The database on climate change litigation maintained by the Grantham Research Institute and the Sabin Center bears testimony to this. Relatively recent cases – such as *Leghari* v. *Federation of Pakistan* in Pakistan²⁰ and

¹¹ See Art. 2(1) Paris Agreement.

¹² Cf. Arts 3, 4(2) and 7 Paris Agreement.

¹³ Cf. Art. 15(1)–(2) Paris Agreement.

¹⁴ Cf. Decision 1/CP.21, 'Adoption of the Paris Agreement' (29 Jan. 2016), UN Doc. FCCC/CP/2015/10/Add.1, para. 51.

On this element of the architecture see, e.g., Bodansky, Brunnée & Rajamani, n. 2 above, pp. 213–5, 235, 245.

¹⁶ Cf. Art. 13 Paris Agreement.

Harmonization at least to an extent that allows comparability: cf. Arts 4(8), 6(1) and 7(6)–(7) Paris Agreement.

See the overview of the first significant developments in the field of international environmental law in general from D. Bodansky & J. Brunnée, 'The Role of National Courts in the Field of International Environmental Law' (1998) 7(1) Review of European Community & International Environmental Law, pp. 11–20.

See the database of the Grantham Research Institute on Climate Change and the Environment and the Sabin Center for Climate Change Law, available at: http://www.lse.ac.uk/GranthamInstitute/climate-change-laws-of-the-world. Over 1,300 cases in many jurisdictions of the world have been identified so far: see J. Setzer & R. Byrnes, 'Global Trends in Climate Change Litigation: 2019 Snapshot', Policy Report, July 2019, available at: http://www.lse.ac.uk/GranthamInstitute/publication/global-trends-in-climate-change-litigation-2019-snapshot.

Leghari v. Federation of Pakistan, W.P. No. 25501/2015, Lahore High Court Green Bench, Orders of 4 Sept. and 14 Sept. 2015 and Judgment of 25 Jan. 2018, available at: https://elaw.org/pk_Leghari.

Earthlife Africa Johannesburg v. Minister of Energy in South Africa²¹ – have not only been successful in raising public awareness but also have convinced courts of the inadequacy of current governance tools. The Dutch courts in the case of *Urgenda Foundation* v. The State of Netherlands²² detected a legally relevant lack of political ambition and correspondingly held the implementation of more effective climate change mitigation measures to be necessary. Many pending cases are following the same route.²³

Climate change litigation has evolved from a few cases in a handful of countries in the years following the conclusion of the Kyoto Protocol²⁴ to a wave of cases as the era of the Paris Agreement begins.²⁵ While climate change litigation, as such, is not a new phenomenon – it has been around at least since the mid-2000s, especially in the United States (US)²⁶ – early efforts were often unsuccessful in convincing courts of a legally relevant failure of state climate policies.²⁷ Currently, many climate change cases address mitigation policy in a more comprehensive way, for example, by requiring

Earthlife Africa Johannesburg v. Minister of Energy, Case No. 65662/16, Judgment of High Court of South Africa, Gauteng Division, Pretoria (South Africa), 8 Mar. 2017, available at: http://cer.org.za/wp-content/uploads/2017/03/Judgment-Earthlife-Thabametsi-Final-06-03-2017.pdf.

Stichting Urgendav. Government of the Netherlands (Ministry of Infrastructure and the Environment), ECLI: NL:RBDHA:2015:7145, Rechtbank Den Haag [District Court of The Hague], C/09/456689/HA ZA 13-1396, available at: https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2015:7196; and Stichting Urgenda v. Government of the Netherlands (Ministry of Infrastructure and the Environment), ECLI:NL:GHDHA:2018:2591, Gerechtshof Den Haag [The Hague Court of Appeal], C/09/456689/HA ZA 13-1396, available at: https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI: NL:GHDHA:2018:2610; on 20 Dec. 2019, the Dutch Supreme Court rejected the government's appeal and thus upheld the previous decisions: Stichting Urgenda v. Government of the Netherlands (Ministry of Infrastructure and the Environment), ECLI:NL:HR:2019:2006, Hoge Raad [Supreme Court], C/09/ 456689/HA ZA 13-1396, available at: https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL: HR:2019:2006, and press release in English, available at: https://www.rechtspraak.nl/Organisatie-en-contact/Organisatie/Hoge-Raad-der-Nederlanden/Nieuws/Paginas/Dutch-State-to-reduce-greenhouse-gasemissions-by-25-by-the-end-of-2020.aspx (Urgenda). See J. van Zeben, 'Establishing a Governmental Duty of Care for Climate Change Mitigation: Will Urgenda Turn the Tide?' (2015) 4(2) Transnational Environmental Law, pp. 339-57; and B. Mayer, The State of the Netherlands v. Urgenda Foundation: Ruling of the Court of Appeal of The Hague (9 October 2018) (2019) 8(1) Transnational Environmental Law, pp. 167-92.

E.g., Case T-330/18, Carvalho and Others v. Parliament and Council, Order of 8 May 2019, ECLI:EU: T:2019:324. See also the applications in the following cases: ENVironnement JEUnesse v. Canada (available at: http://climatecasechart.com/non-us-case/environnement-jeunesse-v-canadian-government); Notre Affaire à Tous and Others v. France (available at: http://climatecasechart.com/non-us-case/notre-affaire-a-tous-and-others-v-france); Pandey v. India (available at: http://climatecasechart.com/non-us-case/pandey-v-india); Friends of the Irish Environment v. Ireland (information available at: https://www.climatecasecireland.ie/climate-case); VZW Klimaatzaak v. Kingdom of Belgium, et al. (information available at: https://affaire-climat.be/en); Union of Swiss Senior Women for Climate Protection v. Swiss Federal Council and Others (available at: http://climatecasechart.com/non-us-case/union-of-swiss-senior-women-for-climate-protection-v-swiss-federal-parliament); and Family Farmers and Greenpeace Germany v. Germany, Verwaltungsgericht Berlin [Administrative Court of Berlin], 31 Oct. 2019, 10 K 412.18, see the Application and Complaint from 25 Oct. 2018, available at: https://www.greenpeace.de/sites/www.greenpeace.de/files/20181101-greenpeace-german-climate-case-summary-of-pleas.pdf.

²⁴ Gupta, n. 3 above, p. 84, Table 1.

²⁵ Cf. the cases listed at n. 23 above.

See the overview of climate change litigation in J. Schwartz, 'Courts as Battlefields in Climate Fights', The New York Times, 26 Jan. 2010, available at: https://www.nytimes.com/2010/01/27/business/energy-environment/27lawsuits.html.

Massachusetts v. Environmental Protection Agency [EPA], 549 U.S. 497 (2007) (marking the first prominent and successful case dealing with climate change governance in a relatively comprehensive manner).

more ambitious overall targets.²⁸ Cases are also more broadly distributed across the globe.²⁹ Interestingly, one can observe a turn to human rights-based arguments and remedies.³⁰ Several recent and ongoing cases illustrate that courts may have become more receptive to the relevance of human rights for state actions in this context.³¹ It may be favourable to this development that the role of national courts in human rights implementation and enforcement appears to be better established than is judicial intervention on the basis of principles of environmental protection.³²

Joyeeta Gupta's hypothesis from the earlier phase of climate change litigation gives an initial perspective on heterogeneity and harmonization among cases:

[T]ransnational epistemic communities of legal scholars and lawyers may promote legal principles and concepts simultaneously at the national and international level through legal scholarship and the use of litigation and [such] promotion may lead to similar court judgments in national courts in different parts of the world using similar principles, doctrines and often referring to case law in other countries.³³

While similar patterns and even explicit cross-references can be seen among cases in different jurisdictions, ³⁴ climate change litigation still remains a heterogeneous phenomenon. ³⁵ Litigation in the area of climate change is based ultimately on national legal conditions. While cases like the German *Lliuya* v. *RWE* ³⁶ do not involve state actors, have a specific legal basis and aim to provide a remedy for climate change damage, litigation such as in the case concerning deforestation in the Colombian

²⁸ Cf. the cases listed at n. 23 above.

²⁹ For more detailed information about the distribution of cases see Grantham Research Institute on Climate Change and the Environment, 'Climate Change Lawsuits Expand to at least 28 Countries around the World', 4 July 2019, available at: http://www.lse.ac.uk/GranthamInstitute/news/climate-change-lawsuits-expand-to-at-least-28-countries-around-the-world. With regard to climate change litigation as an emerging phenomenon in the Global South, see Peel & Lin, n. 4 above.

³⁰ See generally J. Peel & H.M. Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7(1) Transnational Environmental Law, pp. 37–67.

This increasing receptiveness for human rights-based claims is evidenced, e.g., in *Leghari*, n. 20 above, Judgment of 25 Jan. 2018, paras 22–23; *Urgenda*, n. 22 above, The Hague Court of Appeal, paras 43, 73; in this respect also cf. *Carvalho*, n. 23 above, Order of the General Court, 8 May 2019, para. 50.

³² Cf. Bodansky & Brunnée, n. 18 above, pp. 11, 12, 15; generally, on the persuasiveness of rights-based arguments in motivating climate action, see Peel & Osofsky, n. 30 above, p. 40.

³³ Gupta, n. 3 above, p. 85.

E.g., the Australian court in Gloucester Resources Ltd v. Minister for Planning thoroughly considers Massachusetts v. EPA (n. 27 above) as well as Urgenda (n. 22 above): see Land and Environment Court New South Wales, 8 Feb. 2019 [2019] NSWLEC 7, paras 519–24, 537, 539. For even more extensive consideration of other decisions, see Thomson v. Minister for Climate Change Issues, High Court of New Zealand, 2 Nov. 2017, CIV 2015-485-919 [2017] NZHC 733. Concerning similar patterns, see also the cases listed at n. 23 above.

With regard to approaches to systematizing existing litigation, see Setzer & Byrnes, n. 19 above, pp. 4–9;
J. Setzer & M. Bangalore, 'Regulating Climate Change in Courts', in A. Averchenkova, S. Fankhauser & M. Nachmany (eds), Trends in Climate Change Legislation (Edward Elgar, 2017), pp. 175–92, at 177–8.

Saúl Luciano Lliuya v. RWE AG (2017) 20171130 Case No-2-O-28515. In this ongoing case a Peruvian farmer claims damages against RWE, alleging that the company has knowingly contributed to climate change by emitting substantial volumes of greenhouse gases (GHGs) and thus bears partial responsibility for the melting of mountain glaciers that threatens the existence of his town. The legal basis is a removal claim of the owner enshrined in the German Civil Code. Documentation of the case (in German) is available at: https://germanwatch.org/de/14198.

Amazon³⁷ or in *Juliana* v. *United States of America*³⁸ does involve state actors, is based on rather broader legal concepts, and aims to create or enforce obligations to take preventive action.

As the analysis here aims to provide a better understanding of the (potential) interaction between the Paris Agreement and domestic litigation, cases that deal with isolated aspects of domestic regulation, without any relevant connection with the international governance of climate change, will be set aside. Instead, a particular focus will rest on litigation that aims to review climate action or climate-relevant activities in light of international developments.³⁹

3. EFFECTS OF THE PARIS AGREEMENT ON DOMESTIC CLIMATE CHANGE LITIGATION

The observations made in Section 2 may raise the questions of whether and, if so, to what extent recent developments in litigation can be linked to the contemporary international climate change regime. Because domestic and constitutional sources have a more direct legal impact on litigation ⁴⁰ the legal value of the Paris Agreement may easily be neglected. Its mechanisms and norms, as will be outlined, are indeed rarely directly justiciable in national proceedings. However, these norms and mechanisms do find their way into domestic climate change jurisprudence as a means of interpretation and guidance, as well as significant indirect drivers of litigation itself. The analysis in this section of observed and potential effects of the Paris Agreement on climate change litigation concludes that, in particular, the ambitious goals of the present international climate change regime, states' NDCs and the mandatory updating can be highly valuable inputs into domestic litigation.

In order to assess the effects of the Paris Agreement, the relevant articles and their legal design will be outlined with a view to linking international and domestic climate law and policy.

Future Generations v. Ministry of the Environment and Others, Corte Suprema de Justicia (CSJ) [Supreme Court], 5 Apr. 2018, STC4360-2018 (No. 11001-22-03-000-2018-00319-01). The claim is based mainly on constitutional principles and rights of environmental protection, as well as 'classical' human rights. The court derives from those a duty on the government and administration to take immediate measures to stop deforestation.

See, e.g., Juliana et al. v. United States of America, No. 6:15-cv-01517 (D. Or., 10 Nov. 2016) (Aiken, J.), 46 ELR 20175. The case is based on the claim that government inaction in the face of scientific clarity regarding climate change violates an obligation to protect the public trust.

This is essentially 'strategic climate change litigation' – in contrast to 'incidental climate change litigation' – aimed at compelling states or other actors to mitigate, adapt, or compensate. However, until today it represents only the minority of cases concerning climate change issues: see G. Ganguly, J. Setzer & V. Heyvaert, 'If at First You Don't Succeed: Suing Corporations for Climate Change' (2018) 38(4) Oxford Journal of Legal Studies, pp. 841–68, at 843.

On the value of constitutional principles in this context, see, e.g., A.O. Jegede, 'Climate Change and Environmental Constitutionalism: A Reflection on Domestic Challenges and Possibilities', in E. Daly and J.R. May (eds), *Implementing Environmental Constitutionalism: Current Global Challenges* (Cambridge University Press, 2018), pp. 84–99, at 87 and 93–8.

3.1. Ambitious Goals and Clear Guidance

Normative design in the Paris Agreement

The goal of the Paris Agreement is to hold the global temperature rise to 'well below' 2°C in comparison with pre-industrial levels and to make efforts to limit it to 1.5°C (Article 2(1)(a)). Parties' efforts, such as those declared in NDCs, must be oriented towards this goal. With regard to this goal, parties are expected to reach a global peaking of greenhouse gas (GHG) emissions as quickly as possible (Article 4(1)). Parties have agreed to achieve a rapid reduction in emissions with the aim of positive and negative emissions being balanced in the second half of the century. This aim is more specific but less demanding than the overall goal of Article 2(1)(a) as the overall goal could potentially imply that this balance must be achieved even earlier. In view of the preamble to the Paris Agreement and its adoption 'under the Convention', these goals must be read together with the 'ultimate objective' in Article 2 UNFCCC. This integrated interpretation of the goals of the international climate change regime, which is consistent with the precautionary approach, suggests ambitious action in light of established scientific findings.

The Paris Agreement goals are highly relevant for domestic lawmaking and judicial interpretation, even if they are not themselves justiciable. The Agreement's temperature goal contains strong language of legal effect, leaving no discretion for parties to follow divergent temperature goals. Domestic efforts will need to be oriented towards this goal, which requirement has been translated into a global emissions budget. However, as parties have intentionally neither agreed on national budgets nor on respective methods of calculation, individual carbon budgets and respective national targets are to be set by national policy or law. Still, in view of the provisions on common but differentiated responsibilities and respective capabilities (CBDR-RC) (for example, in Article 4(4) of the Paris Agreement) or on the basis of alternative principles of burden sharing among states, courts can derive further guidance for an assessment of the adequacy of envisaged or actual national contributions. ⁴⁷

⁴¹ Art. 3 states: 'with a view to achieving the purpose of this Agreement as set out in Article 2'.

See also, with regard to potential conflict between the goals, F. Ekardt, J. Wieding & A. Zorn, 'Paris Agreement, Precautionary Principle and Human Rights: Zero Emissions in Two Decades?' (2018) 10(8) Sustainability, pp. 1–15, at 3.

^{43 &#}x27;In pursuit of the objective of the Convention': Paris Agreement, preamble, para. 3; the mandate for the negotiation of the Paris Agreement: see Decision 1/CP.17, 'Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP)' (15 March 2012), FCCC/CP/2011/9/Add.1, para. 2.

⁴⁴ N. 7 above

The Intergovernmental Panel on Climate Change (IPCC) states, inter alia, that 'model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO2 emissions decline by about 45% from 2010 levels by 2030 (40–60% interquartile range), reaching net zero around 2050': IPCC, Global Warming of 1.5°C (2018), Summary for Policymakers, Section C.1, available at: https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf (IPCC Special Report).

⁴⁶ The IPCC is following the global carbon budget approach, e.g., in the IPCC Special Report, ibid.

Whether they will do so will also depend on whether litigants expressly articulate the principle in domestic proceedings, concludes P. Galvão Ferreira, "Common But Differentiated Responsibilities" in the National Courts: Lessons from *Urgenda* v. *The Netherlands*' (2016) 5(2) *Transnational Environmental Law*, pp. 329–51, at 351.

Impact on litigation

In cases where international climate change law has been invoked, it has generally been applied indirectly, as a means of interpretation or guidance, rather than serving as a direct legal basis. 48 It is a constitutional requirement in many countries to interpret national law, to the extent possible, in conformity with international law, ⁴⁹ This interpretive principle was applied, inter alia, in the South African case of Earthlife Africa Johannesburg v. Minister of Energy, where the court asserted that 'the various international agreements on climate change are relevant to the proper interpretation [of national legislation]⁵⁰ The precautionary principle and obligation to consider climate change impacts in all environmental policies and actions enshrined in the UNFCCC.⁵¹ and the commitment to the country's NDC under the Paris Agreement, guided the court in finding that climate change impacts and mitigation measures have to be considered in environmental impact assessments, notwithstanding the absence of an express provision. 52 This broader consideration of international climate change law to guide interpretation can also be applied in the specific context of the internationally agreed goals. In order to determine ministerial statutory discretion and a potential duty to review national targets in view of new scientific findings, the court in Thomson v. Minister for Climate Change Issues considered the temperature goal and other provisions of the Paris Agreement:⁵³

These provisions do not expressly require that New Zealand review any target it has set under its domestic legislation when an IPCC report is published. However collectively they do underline the pressing need for global action, that global action requires all Parties individually to take appropriate steps to meet the necessary collective action, and that Parties should do so in light of relevant scientific information and update their individual measures in light of such information.

Even before the adoption of the Paris Agreement, the *Urgenda* case relied on the 2°C target negotiated by the Conferences of the Parties (COP) under the UNFCCC.⁵⁴ In

While in *Massachusetts* v. *EPA* (n. 27 above) international law has not played a relevant role, courts in *Urgenda* (n. 22 above) have extensively used international climate change law to guide interpretation; post-Paris Agreement examples are *Earthlife Africa Johannesburg*, n. 21 above, para. 83; and the judgment in *Thomson* v. *Minister for Climate Change Issues*, n. 34 above, para. 88; see also Mayer, n. 2 above, pp. 244–5.

With references to many national legal orders, see A. Nollkaemper, *National Courts and the International Rule of Law* (Oxford University Press, 2011), pp. 148–9; see, e.g., the German constitutional principle of *Völkerrechtsfreundlichkeit*, which requires an international law-friendly interpretation of national law in order to ensure conformity with international legal obligations: *Bundesverfassungsgericht* [Federal Constitutional Court], 2 BvR 2365/09, paras 86, 91–4. An interesting counter-example is the court's opinion in *Greenpeace Nordic Association and Nature and Youth* v. *Ministry of Petroleum and Energy*, Oslo District Court, 4 Jan. 2018, 16-166674TVI-OTIR/06, para. 4.1, available at: http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2018/20180104_16-166674TVI-OTIR/06_judgment-2.pdf.

Earthlife Africa Johannesburg, n. 21 above, para. 83; another relevant example of the application of this interpretive principle is *Thomson* v. *Minister for Climate Change Issues*, n. 34 above, para. 88.

⁵¹ Cf. Arts. 3(3) and 4(1)(f) UNFCCC.

Earthlife Africa Johannesburg, n. 21 above, paras 83, 88, 90-1.

⁵³ Thomson v. Minister for Climate Change Issues, n. 34 above, paras 88–97.

⁵⁴ *Urgenda*, n. 22 above, District Court of The Hague, paras 2.49, 2.51, 4.65, 4.84.–4.86.

several pending cases, recourse is taken to the overall goals to support particular interpretations of climate-related provisions in national or supranational law and thus call for more ambitious domestic mitigation targets.⁵⁵

While helping to synchronize domestic targets with the ambitious and dynamic character of the overall objectives under the Paris Agreement and the UNFCCC, domestic courts may play an important role in defining and reducing executive or legislative discretion in view of evolving science and evolving international agreement. Considering the goal in Article 2(1)(a) of the Paris Agreement and the recent Intergovernmental Panel on Climate Change (IPCC) Special Report on the 1.5°C goal, ⁵⁶ it may be possible to cut the scope for manoeuvre drastically. ⁵⁷ The report, in any case, strengthens legal arguments based on human rights and on a failure to observe a duty of care as a result of the stronger and more comprehensive scientific evidence of the nexus between climate change and human rights presented in the report.⁵⁸ As mentioned in the previous section, the IPCC has calculated a global carbon budget in accordance with the goals set under the Paris Agreement. This global carbon budget approach was relied on by the court in Gloucester Resources Ltd v. Minister for Planning to uphold the refusal of a company's application to construct a coal mine. 59 Beyond that, litigants in Carvalho and Others v. Parliament and Council have argued that the Paris Agreement's temperature goal and burden-sharing principles allow for deriving a carbon budget applicable to the European Union (EU) in order to assess the adequacy of envisaged emissions reduction levels. 60 In another case, litigants argue that the global carbon budget approach may be used in relation to national longterm targets in order to identify an 'over-emission' and consequently a violation of selfcommitment. 61 While these approaches clearly indicate that the internationally agreed temperature goal can be framed and deployed in legal arguments, there are limits. In the absence of specific rules to determine individual shares of the global carbon budget, national courts will have difficulty in deciding the specific extent to which the

⁵⁵ See, e.g., Carvalho and Others v. Parliament and Council, n. 23 above; the same applies to most of the cases listed in n. 23 above.

⁵⁶ IPCC Special Report, n. 45 above.

Although parties have been cautious in approving the specific findings and the urgency expressed in the IPCC Special Report (n. 45 above), the guiding function of the IPCC reports reflecting 'best available science' has been acknowledged: see Decision 1/CP.24, 'Preparations for the Implementation of the Paris Agreement and the First Session of the Conference of the Parties Serving as the Meeting of the Parties to the Paris Agreement' (19 Mar. 2019), UN Doc. FCCC/CP/2018/10/Add.1, paras 24–9.

See also F. Sindico & K. McKenzie, 'Human Rights Threshold in the Context of Climate Change: A Litigation Perspective in the Wake of the IPCC Special Report on 1.5°C or the Week in which Everything Changed ...', University of Strathclyde Centre for Environmental Law and Governance, Policy Brief No. 15, Oct. 2018, available at: https://www.strath.ac.uk/media/1newwebsite/department-subject/law/strathclydecentreforenvironmentallawandgovernance/pdf/policybriefs/Human_Rights_ Thresholds_in_the_Context_of_Climate_Change.pdf.

⁵⁹ Gloucester Resources Ltd v. Minister for Planning, n. 34 above, e.g., paras 441, 554.

⁶⁰ See Carvalho and Others v. Parliament and Council, n. 23 above, Application, pp. 36–41, available at: https://peoplesclimatecase.caneurope.org/wp-content/uploads/2018/07/application-delivered-to-european-general-court.pdf.

⁶¹ See Family Farmers and Greenpeace Germany v. Germany, n. 23 above, Application and Complaint, p. 10.

internationally agreed goals limit domestic discretion in determining national targets. Although some cases demonstrate that considerations of 'fair distribution', ⁶² per capita emissions and development level, ⁶³ as well as other countries' targets, ⁶⁴ can play a role in reviewing the adequacy of national targets, ⁶⁵ the specific implications of such considerations remain vague. ⁶⁶

3.2. Cross-cutting Normative Architecture: Enhanced Transparency, Diversified Actors and Intentional Dynamics

Normative design in the Paris Agreement

The normative architecture of the Paris Agreement is essentially shaped by the features of NDCs, transparency and oversight, and 'ratcheting mechanisms'.

The 'hinge-provision' of Article 3 ties the overall goal of the Paris Agreement to an obligation upon the signatory countries stipulated in Article 4(2) to set up, communicate, and uphold NDCs, which must be implemented by respective measures. Although Article 3 extends the establishment of NDCs to the areas of adaptation, finance, technology, capacity building, and transparency, Article 4 contains specific obligations and standards that apply only to the area of mitigation. The obligations with regard to mitigation are therefore significantly more detailed and strict than those concerning NDCs in adaptation or finance. ⁶⁷

In terms of NDCs, substantive and procedural requirements set in the Paris Agreement, the content of NDCs, and their legal nature could be of relevance to domestic litigation.

Substantive requirements in Article 4, such as those concerning the implementation of measures, leave significant scope for national discretion ('shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions'). ⁶⁸ Still, Article 4(2) establishes an expectation of good faith ⁶⁹ and arguably introduces a standard that guides the assessment of domestic measures to implement NDCs. ⁷⁰

⁶² *Urgenda*, n. 22 above, District Court of The Hague, paras 4.23, 4.57, 4.76, 4.79.

⁶³ *Urgenda*, n. 22 above, The Hague Court of Appeal, para. 66.

⁶⁴ Thomson v. Minister for Climate Change Issues, n. 34 above, paras 165–6.

⁶⁵ See Galvão Ferreira, n. 47 above, pp. 336–7.

Regarding the *Urgenda* judgments, see Mayer, n. 22 above, p. 187.

By way of example, Art. 7(10)–(12) on adaptation communications contain far more discretionary and less specific language concerning submission, updating, or determination of contents ('as appropriate', 'may include'); see also L. Rajamani, 'Guiding Principles and General Obligation (Article 2.2 and Article 3)', in D.R. Klein et al. (eds), The Paris Climate Agreement on Climate Change: Analysis and Commentary (Oxford University Press, 2017), pp. 131–40, at 138.

For a different perspective, see B. Mayer, 'International Law Obligations Arising in relation to Nationally Determined Contributions' (2018) 7(2) Transnational Environmental Law, pp. 251–75, at 259–62 (arguing that there is indeed an obligation to take adequate steps towards achieving the targets set in NDCs).

⁶⁹ Bodansky, Brunnée & Rajamani, n. 2 above, p. 231; see, e.g., L. Rajamani, 'Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics' (2016) 65(2) International and Comparative Law Quarterly, pp. 493–514, at 498.

Elaborating on a due diligence standard that parties have to observe, see C. Voigt, 'The Paris Agreement: What Is the Standard of Conduct for Parties?' (2016) 26 Questions of International Law online articles,

Such a non-binding expectation also exists with regard to the gradual tightening of NDCs,⁷¹ and with regard to the reflection of the highest possible ambition of the party in its self-determined targets (Article 4(3), in concretization of Article 3). However, significant discretion is left to governments in determining what constitutes the 'highest possible ambition' in light of national circumstances. Further, developed country parties should set up economy-wide binding targets in view of their CBDR-RC (Article 4(4)). In the Paris Rulebook, parties have agreed to clarify how these standards and expectations have been addressed in the determination of NDCs.⁷² In sum, although substantive requirements create a normative guideline for states to follow in preparing their NDCs, they do not provide a template for the substantive content of NDCs because of their non-binding and discretionary character.

Procedural requirements, on the other hand, have more direct influence on the preparation of NDCs. The requirement in Article 4(2) to set up, communicate, and uphold NDCs is a legally binding and justiciable obligation of states.⁷³ The required detail of information in order to allow tracking of collective and individual progress is determined in Articles 4(8) and 13(7), and specified in the Paris Rulebook. ⁷⁴ To strike a balance between international guidance and national discretion, parties have agreed that shared information needs to be quantifiable and detailed, and substantiate ambition in view of the overall goal, the global stocktake, and national circumstances. 75 Information has to be updated regularly and must be particularly detailed with regard to national implementation. ⁷⁶ The dynamic of regular updating is reinforced by the periodic global stocktake on collective progress in realization of the overall goals (Article 14) that will inform parties in setting their NDCs and connects to the 'ratcheting mechanism'. 77 This mechanism to produce ambitious national contributions has the following elements: (i) the clear indication of a pathway (goals and objectives); (ii) the five-year period of renewing NDCs; and (iii) the requirement of their gradual elevation and periodic review. ⁷⁸ The procedural requirements regarding NDCs, therefore, primarily produce a significant source of information and dynamic in the decision-making process, as national measures and

pp. 17–28, at 21–2, available at: http://www.qil-qdi.org/paris-agreement-standard-conduct-parties; more cautious with regard to the standard, see R. Bodle & S. Oberthür, 'Legal Form of the Paris Agreement and Nature of Its Obligations', in Klein et al., n. 67 above, pp. 91–104, at 99 (note 62).

See L. Rajamani & J. Brunnée, 'The Legality of Downgrading Nationally Determined Contributions under the Paris Agreement: Lessons from the US Disengagement' (2017) 29(3) Journal of Environmental Law, pp. 537–51, at 547–8.

Decision 4/CMA.1, 'Further Guidance in relation to the Mitigation Section of Decision 1/CP.21, Annex I' (19 Mar. 2019), UN Doc. FCCC/PA/CMA/2018/3/Add.1, para. 6.

⁷³ Cf. Bodansky, Brunnée & Rajamani, n. 2 above, p. 231.

⁷⁴ Decision 4/CMA.1, n. 72 above.

⁷⁵ Cf. Decision 4/CMA.1, n. 72 above, Annex I, pp. 9–11.

⁷⁶ See Decision 18/CMA.1, 'Modalities, Procedures and Guidelines for the Transparency Framework for Action and Support referred to in Article 13 of the Paris Agreement' (19 Mar. 2019), UN Doc. FCCC/ PA/CMA/2018/3/Add.2.

⁷⁷ Cf. Art. 4(9) Paris Agreement. See also Rajamani, n. 69 above, pp. 504–5; and H. Winkler, 'Mitigation (Article 4)', in Klein et al., n. 67 above, pp. 141–65, at 155.

Nee H. van Asselt, 'International Climate Change Law in a Bottom-Up World' (2016) 26 Questions of International Law online articles, pp. 5–15, at 7–8, available at: http://www.qil-qdi.org/international-climate-change-law-bottom-world.

international standards are under constant review and adjustment. As such, they are not only crucial in holding states accountable for their NDCs at the international level, ⁷⁹ but can simultaneously affect the domestic level, particularly review processes, by providing necessary substance and impetus for domestic litigation.

Considering the actual content of current NDCs, ⁸⁰ targets are set in very different ways and there is a lack of information on methodologies for emissions projections, resulting in challenges for the assessment of implementation. ⁸¹ This is expected to improve with the implementation of the Paris Rulebook. ⁸² Another discernible deficit in current NDCs is a lack of information or detail regarding the linkage of individual efforts and collective goals, ⁸³ contrasting the emphasis of this linkage in Article 3 of the Paris Agreement.

Another issue of relevance for invoking NDCs in domestic judicial proceedings concerns their legal nature. NDCs reflect mostly political outcomes or action plans adopted at the national level. Although they do represent a certain commitment towards specified action, they do not necessarily reflect domestic law or legislation. For this reason, it matters whether the international legal nature of NDCs is assumed to be binding or not, and whether they have direct effect in the domestic legal order or not. As a source of international legal obligations NDCs could be invoked directly or as means of interpretation. If NDCs are not assumed to be legally binding within the domestic order it is legally conceivable for NDCs and implemented measures to diverge without this opening up the possibility of bringing justiciable domestic claims on the basis of the content of the NDCs. This would be different when legislation and NDCs are sufficiently synchronous. In that case, the content of NDCs as enshrined in national legislation is legally binding, and could be invoked to demonstrate the (in)adequacy of national implementation measures.

In addition to the development of NDCs, Article 4(19) recommends that parties should develop and publish national long-term strategies for low GHG emissions

Cf. Bodansky, Brunnée & Rajamani, n. 2 above, p. 242. Perhaps creating rather 'functional bindingness', as Jacob Werksman describes the effect of the transparency and accountability provisions of the Paris Agreement: J. Werksman, 'International Legal Character of the Paris Agreement', paper presented at the 'Environmental Law Brodies Lecture', University of Edinburgh, 9 Feb. 2016, available at: https://www.law.ed.ac.uk/sites/default/files/2019-06/BrodiesLectureontheLegalCharacteroftheParisAgreementFinal BICCLEdinburgh.pdf.

So far, with the exception of the Marshall Islands, no country has made use of the possibility under Art. 4(11) of the Paris Agreement, and updated its first NDC: see the current status, available at: https://www4.unfccc.int/sites/ndcstaging/Pages/Home.aspx.

A. Averchenkova & S. Matikainen, 'Climate Legislation and International Commitments', in Averchenkova, Fankhauser & Nachmany, n. 35 above, pp. 193–208, at 196.

The agreed standards, however, apply only to the communication of the second NDCs, and common time frames to NDCs must be applied from 2031 onwards: see Decision 4/CMA.1, n. 72 above, para. 7, and Decision 6/CMA.1, n. 72 above, para. 2.

See, e.g., the relatively precise but not very detailed INDC/NDC submitted by the EU in 2015, available at: https://www4.unfccc.int/sites/submissions/indc/Submission%20Pages/submissions.aspx (which does not express any information on how the EU's contribution relates to overall temperature goal).

⁸⁴ Cf. Averchenkova & Matikainen, n. 81 above, p. 196.

⁸⁵ Regarding this discussion see, e.g., Rajamani, n. 69 above, pp. 497–9; see also, Mayer, n. 68 above.

An example in that direction may be the implementation of the NDCs under the Climate Change Act in Norway, available at: https://lovdata.no/dokument/NLE/lov/2017-06-16-60.

development. Although this provision is not legally binding, several parties have already made use of it.⁸⁷ The national long-term strategies generated by this mechanism can play a crucial role in linking domestic short-term action to the overall mitigation goals.⁸⁸

Impact on litigation

The justiciability of national targets set by executive or legislative action is a major issue in domestic litigation. ⁸⁹ Domestic targets could be invoked either in the form of NDCs or as national political or legal instruments. In the judgment of the Colombian Supreme Court in *Future Generations* v. *Ministry of the Environment and Others*, the country's pledge to stop deforestation, as included in its NDC, ⁹⁰ is considered to be a binding commitment of the state. ⁹¹ In contrast, the court in *Thomson* v. *Minister for Climate Change Issues* clearly considered NDCs to be non-binding on states and therefore not relevant for the court's decision. ⁹² In *Earthlife Africa Johannesburg* the court relied on NDCs but did not state clearly whether their content is binding on the state or not. ⁹³

However, not only the content of NDCs may have an impact on domestic litigation. In particular, procedural obligations regarding the preparation of NDCs and the non-binding provision on long-term strategies (Article 4(19)) produce impetus and input for litigation. Having recourse to Germany's long-term Climate Action Plan 2050⁹⁴ and its short-term targets, and linking them with the overall temperature goal of the Paris Agreement, applicants in *Family Farmers and Greenpeace Germany* v. *Germany* argued, inter alia, that by exceeding the national carbon budget, the country violates its self-imposed and legally binding objective.⁹⁵

To date, 11 parties have submitted and published their strategies on the platform: see UN Climate Change, 'Communication of Long-Term Strategies', available at: https://unfccc.int/process/the-paris-agreement/long-term-strategies. See also the EU's long-term strategy, 'A Clean Planet for All: A European Strategic Long-Term Vision for a Prosperous, Modern, Competitive and Climate Neutral Economy', 28 Nov. 2018, COM/2018/773 final, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018DC0773.

See Bodansky, Brunnée & Rajamani, n. 2 above, p. 230; also L. Rajamani & E. Guérin, 'Central Concepts in the Paris Agreement and How They Evolved', in Klein et al., n. 67 above, pp. 74–90, at 80.

The recent judgment of the administrative court in Family Farmers and Greenpeace Germany v. Germany (n. 23 above) illustrates this. The claim was dismissed mainly because of a lack of justiciability of the mitigation target declared by the federal government.

See Government of Colombia, unofficial English translation of the NDC, pp. 8–9, available at: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Colombia%20First/Colombia%20 iNDC%20Unofficial%20translation%20Eng.pdf.

However, the Supreme Court's treatment of the legal implications of the Paris Agreement and the country's NDC towards an obligation to take immediate measures to stop deforestation remains very brief and rather vague: Future Generations, n. 37 above, para. 11.3.

See, e.g., Thomson v. Minister for Climate Change Issues, n. 34 above, para. 38. In a similar but less clear-cut way the court argues in Plan B Earth and Others v. Secretary of State for Transport, High Court of Justice, Queen's Bench Division, 1 May 2019, [2019] EWHC 1070 (Admin), [607].

⁹³ N. 21 above, paras 35, 90.

^{94 &#}x27;Climate Action Plan 2050: Principles and Goals of the German Government's Climate Policy', Nov. 2016, available at: https://www.bmu.de/fileadmin/Daten_BMU/Pools/Broschueren/klimaschutzplan_2050_en_bf.pdf.

⁹⁵ Family Farmers and Greenpeace Germany v. Germany, n. 23 above, Application and Complaint, pp. 6, 10.

Owing mainly to transparency requirements of action and targets under the Paris Agreement, non-governmental organizations (NGOs) and even individuals are empowered in the sense of being able to monitor state behaviour and take political or legal action to trigger implementation or enforcement processes. Further value of a high standard of transparency and reporting obligations is exemplified by the *Urgenda* case before Dutch courts. In order to establish that the Dutch government had not observed the required duty of care, Urgenda and the other plaintiffs relied essentially on the transparency of government action, in combination with its consent to ambitious targets at the international level. The obligation to provide information necessary for the review of progress made in implementing the NDCs under Article 13(7) will potentially allow for further judicial assessment of the implementation of NDCs in view of the goals of the Paris Agreement.

Moreover, domestic courts are generally receptive to following the guidance of standards agreed in the Paris Agreement and apply them to national law. Although not based upon Article 4 of the Paris Agreement, ⁹⁸ according to an interpretation of national legislation consistent with the Agreement, the court in *Thomson* v. *Minister for Climate Change Issues* considers that the review of mitigation targets in light of new best available scientific information 'is a mandatory relevant consideration' under domestic law. ⁹⁹

3.3. Narratives of Human Rights and Loss and Damage

In a less direct way than the normative architecture of NDCs, transparency and oversight, and ratcheting requirements, the Paris Agreement's references to human rights in the preamble and to loss and damage in Article 8 may also contribute to further litigation. Although the Paris Rulebook did not ultimately include the requirement of information on measures to safeguard human rights in NDCs, the 'people and impact'-centred notion of the preamble links the obligations and efforts of states to potentially affected individual legal positions, thereby implicitly promoting access to review of impacts on the individual under existing rights mechanisms. These rights

⁹⁶ See, e.g., H. van Asselt, 'The Role of Non-State Actors in Reviewing Ambition, Implementation and Compliance under the Paris Agreement' (2016) 6(1–2) Climate Law, pp. 91–108.

See, e.g., with regard to cost-effectiveness, *Urgenda*, n. 22 above, District Court of The Hague, para. 4.70; generally, see also *Urgenda*, n. 22 above, The Hague Court of Appeal. This particular case certainly has to be seen against the background that Dutch courts tend to be very active in resorting to international law and that the Dutch legal order itself is characterized by a particular proximity to international law; cf. A. Nollkaemper, 'Judicial Application of International Environmental Law in the Netherlands' (1998) 7(1) *Review of European Community and International Environmental Law*, pp. 40–6.

Instead it was based upon the preamble and Art. 2(1)(a).

⁹⁹ See Thomson v. Minister for Climate Change Issues, n. 34 above, paras 88–94.

The formulation in the preamble requires states 'when taking action to address climate change, [to] respect, promote and consider their respective obligations on human rights ...'; with regard to the novelty and implications of this linkage in the Paris Agreement see S. Duyck et al., 'Human Rights and the Paris Agreement's Implementation Guidelines: Opportunities to Develop a Rights-based Approach' (2018) 12(3) Carbon & Climate Law Review, pp. 191–202, at 191.

On these initial discussions, see Duyck et al., ibid.; cf. Report of the Conference of the Parties on its Twenty-Fourth Session, held in Katowice from 2 to 15 December 2018 (19 Mar. 2019), UN Doc. FCCC/CP/2018/10/Add.1.

mechanisms do not necessarily have to be international institutions. For example, the comprehensive investigation of the Commission on Human Rights of the Philippines concerning the link between the activities of so-called carbon majors and individual human rights illustrates the involvement of (quasi-)judicial organs at the national level. Also, in more adversarial proceedings domestic courts appear to be more receptive to rights-based arguments. The 2018 Court of Appeal decision in the prominent *Urgenda* case illustrates this turn. While the court of first instance had relied on constitutional principles and the doctrine of hazardous negligence in Dutch civil law, the Court of Appeal had recourse to the duty to guarantee the rights under Articles 2 and 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR) and accordingly required the state to take concrete actions to prevent a future violation of protected individual interests.

4. REBOUND IMPACT FOR INTERNATIONAL CLIMATE CHANGE MITIGATION

Another interesting issue from the legal perspective is the regulatory significance of climate change litigation. Do climate change cases before national courts complement the international legal framework or serve as 'stop-gaps' for legislative failure in international law or national law? The aim of this section is to provide an overview of the functions and limits of litigation in influencing the effectiveness of the international climate change regime.

In the field of climate change, litigation before domestic courts can supplement the framework under the Paris Agreement in various ways: it can enhance progress towards the regime's collective goals, it can trigger or support internalization processes, ¹⁰⁷ and it addresses aspects that are envisaged by the Paris Agreement but cannot be realized in the international arena. More generally, litigation can help to maintain the link between international standards under the climate change regime and domestic policy and law, thereby contributing to the harmonization of international and national standards and approaches across the world. ¹⁰⁸

Philippines Reconstruction Movement and Greenpeace v. Carbon Majors, Case No. CHR-NI-2016-0001 (2015) (Carbon Majors case); documentation available at: http://www.lse.ac.uk/GranthamInstitute/litigation/in-re-greenpeace-southeast-asia-et-al-2015-__-commission-onhuman-rights-of-the-philippines-2015.

¹⁰³ See Peel & Osofsky, n. 30 above, p. 40.

¹⁰⁴ *Urgenda*, n. 22 above, District Court of The Hague, para. 5.1; see also van Zeben, n. 22 above, p. 347.

Rome (Italy), 4 Nov. 1950, in force 3 Sept. 1953, available at: http://www.echr.coe.int/pages/home.aspx? p=basictexts.

Urgenda, n. 22 above, The Hague Court of Appeal, paras 43, 73; see Mayer, n. 22 above, p. 178.

¹⁰⁷ Internalization often appears to be a rather neglected aspect when assessing the efficacy of multilateral environmental agreements: cf. the commentary by H.H. Koh, 'The New Sovereignty: Compliance with International Regulatory Agreements' (1997) 91(2) American Journal of International Law, pp. 389–91, at 391.

¹⁰⁸ Cf. Gupta, n. 3 above, p. 85.

4.1. Stop-Gap or Complement?

A principal function of strategic litigation is to respond to governance gaps in the forms of inadequate lawmaking and enforcement by governments. 109 With regard to climate change, the long quest for the adoption of a treaty to succeed the Kyoto Protocol has inspired innovative solutions at levels other than the international and within institutions other than the UNFCCC bodies. While in the immediate aftermath of the Kyoto Protocol, at the national level many countries were concerned with implementation in the face of more apparent deficits of the Agreement regarding participation and insufficient ambition of mitigation commitments, litigation has - albeit in isolated cases – assumed the function of a 'stop-gap' in order to provide impetus for addressing climate change. 110 The *Urgenda* case illustrates that regulatory failure in the face of an insufficient second commitment under the Kvoto Protocol¹¹¹ gave rise to domestic litigation aimed at aligning domestic policy with the progress of knowledge regarding the urgency of the problem and recent agreements at the international level. The approach can be broad and require fundamental legislative action, 112 or narrow when specific adiustments of governance instruments are called for. 113 Cases can shape government decision making and legislation beyond merely providing 'stop-gaps'. 114 Some courts have ruled on the establishment of dynamic institutions or processes to help further implementation as well as policy development. Examples are the establishment of a Climate Change Commission, and later a Standing Committee on Climate Change, in the Leghari case, 115 and the requirement to establish an Intergenerational Covenant for the Life of the Colombian Amazon in the case before the Supreme Court of Colombia. 116

In this manner, the Paris Agreement creates new opportunities for litigation to create complementary governance tools.

See, e.g., J. Setzer and M. Nachmany, 'National Governance', in Jordan et al., n. 8 above, pp. 47–62, at 56–7. With a focus on litigation in the 'Global South' see Peel & Lin, n. 4 above, pp. 687, 699.

¹¹⁰ Cf., with regard to litigation in the United States (US), Gupta, n. 3 above, pp. 78–80; and B.J. Preston, 'Climate Change Litigation (Part 1)' (2011) Carbon and Climate Law Review, pp. 3–14, at 3. More generally, see W.C.G. Burns & H.M. Osofsky, 'Overview: The Exigencies that Drive Potential Causes of Action for Climate Change', in H.M. Osofsky & W.C.G. Burns (eds), Adjudicating Climate Change: State, National, and International Approaches (Cambridge University Press, 2009), pp. 1–27, at 20.

¹¹¹ The emissions reduction target until 2020, adopted by the Netherlands and confirmed in the EU's international commitment under the Doha Amendment to the Kyoto Protocol, was a 20% reduction compared with 1990 levels. However, the court found that a target of less than a 25% reduction compared with 1990 was insufficient and unlawful: *Urgenda*, n. 22 above, District Court of The Hague, para. 4.93.

¹¹² In cases such as Urgenda (n. 22 above), Carvalho and Others v. Parliament and Council and Family Farmers and Greenpeace Germany v. Germany (both at n. 23 above), and Plan B Earth and Others v. Secretary of State for Transport (n. 92 above) concerning an alleged lack of ambition in general mitigation targets.

¹¹³ In cases such as Massachusetts v. EPA (n. 27 above), Earthlife Africa Johannesburg (n. 21 above), Greenpeace Nordic Association and Nature and Youth v. Ministry of Petroleum and Energy (n. 49 above), and Gloucester Resources Ltd v. Minister for Planning (n. 34 above) concerning (better) consideration of potential climate change impacts in impact assessments, issuing of licences, or environmental protection more broadly.

Arguing in a similar direction with regard to litigation in the US, H.M. Osofsky, 'The Continuing Importance of Climate Change Litigation' (2010) 1(1) Climate Law, pp. 3–29, at 5; see also Setzer & Bangalore, n. 35 above, p. 178.

¹¹⁵ Leghari, n. 20 above, Order of 14 Sept. 2015, para. 11, and Judgment of 25 Jan. 2018, para. 25.

Future Generations v. Ministry of the Environment and Others, n. 37 above, p. 49.

4.2. Approximating the Overall Goal, Enhancing Internalization, and Addressing Shortcomings

A shortcoming in the architecture of the Paris Agreement consists of the loose legal links between the collective overall goal, and individual efforts. 117 Existing NDCs are insufficient, ¹¹⁸ and some worry that parties may not be adequately incentivized to step up with regard to their NDCs and follow-up after the review process. 119 'Ratcheting mechanisms' at the international level are designed as a surrogate for a stronger legal obligation to adjust NDCs to the overall goal. A facilitative procedure to 'promote compliance with the provisions of the Agreement' (Article 15) is in place to contribute to that aim. However, there is no mandate to review the adequacy of an individual NDC, or the tightening of subsequent NDCs in relation to earlier versions. 120 National court decisions can provide an effective incentive and thus complement the ratcheting mechanisms. This does not necessarily require courts to follow the applicants' reasoning and compel governments to adjust their individual efforts in line with a collective temperature goal. 121 Litigation as such can create ratcheting effects by raising public awareness and mobilizing NGOs to challenge climate policy, and by providing impetus for government review of the adequacy of targets or measures. 122 Even if courts reject stricter mitigation targets on grounds of governmental discretion, to direct awareness to a possible disconnection between such targets and the goals of the Paris Agreement in light of best available science can already contribute to better streamlining. While, at the international policy level, consideration of IPCC reports may face certain political constraints, ¹²³ cases that involve an alleged disconnection force states to engage with these reports and their implications for national targets at the domestic level. 124 In this sense, domestic litigation is able to create a meaningful link between science and climate policy that is worthy of more detailed discussion. This discussion, however, is beyond the scope of the current article.

With regard to substantive norms of international law, it has been argued that they are heavily dependent on implementation by national courts and are likely to remain a

¹¹⁷ See, e.g., Mayer, n. 2 above, pp. 235–7; Art. 3 Paris Agreement stipulates that individual efforts must be undertaken 'with a view to achieving the purpose of this Agreement'.

¹¹⁸ Cf., e.g., Talanoa Dialogue for Climate Ambition, 'Synthesis Report of the Preparatory Phase', 19 Nov. 2018, para. 2.2.1, available at: https://talanoadialogue.com/outputs-and-outcome; UN Environment Programme, 'Emissions Gap Report 2018', 27 Nov. 2018, pp. 19–21, available at: https://www.unenvironment.org/resources/emissions-gap-report-2018; IPCC Special Report, n. 45 above, p. 8.

¹¹⁹ Cf. Van Asselt, n. 78 above, pp. 5–15, at 10.

¹²⁰ Rajamani & Brunnée, n. 71 above, p. 549.

¹²¹ The 'success' of the *Urgenda* case (n. 22 above) in courts is no guarantee of an effective ratcheting-up in ambition: cf. Mayer, n. 22 above, pp. 174–5; see also J. Verschuuren, 'The State of the Netherlands v Urgenda Foundation: The Hague Court of Appeal Upholds Judgment Requiring the Netherlands to Further Reduce Its Greenhouse Gas Emissions' (2019) 28(1) Review of European, Comparative & International Environmental Law, pp. 94–8, at 98.

¹²² Cf. J. Lin, 'Climate Change and the Courts' (2012) 32(1) Legal Studies, pp. 35–57, at 38.

¹²³ Parties to the UNFCCC and Paris Agreement could only agree to welcome 'the timely completion' but not to respond to its findings in the IPCC Special Report: see n. 57 above.

¹²⁴ See, e.g., Urgenda, n. 22 above, The Hague Court of Appeal, para. 49; Thomson v. Minister for Climate Change Issues, n. 34 above; Gloucester Resources Ltd v. Minister for Planning, n. 34 above.

'dead letter' until applied to a case at hand by national judges. 125 In general, national courts have also been seen to further the implementation of international environmental law by applying it to an individual case, by creating a deterrent effect, and by incorporating international norms and standards into domestic law. 126 Although the Paris Agreement does not contain substantive provisions comparable with the mitigation provisions of the Kyoto Protocol, it nonetheless sets up a normative architecture of internationally agreed standards and expectations. These are in need of translation into domestic governance and, finally, domestic action. While this may be primarily a task for legislatures, domestic courts can contribute by 'holding their governments to account, and ... ensuring that ... commitments are given practical and enforceable effect'. 127 Rather abstract provisions, such as the collective temperature goal, which are not directly justiciable, are given practical effect when invoked in domestic courts. 128 In a similar way, litigation can complement the more political 'naming and shaming' mechanism resulting particularly from the transparency framework. The transparency framework's latent enforcement potential can thus partially be fulfilled in legal proceedings. 129 Moreover, by referring to the non-binding standards set by the Paris Agreement and NDCs, national courts help to strengthen the legitimacy of those standards.

In addition to the potentially deterrent function of domestic litigation in the absence of an effective compliance mechanism at the international level, ¹³⁰ domestic litigation may address another shortcoming of the Paris Agreement. Although the Agreement has enshrined the Warsaw International Mechanism on Loss and Damage in Article 8, it has explicitly refrained from providing a basis for liability and compensation. ¹³¹ In this regard domestic climate change litigation can serve partly as a complementary tool. Obligations concerning the restitution of damages, not only of states but also of private actors, which cannot be established by international law, can be determined in domestic courts and connected with the governance framework of climate change.

5. CONCLUSIONS

This article adds to the discussion about the efficacy of the Paris Agreement. On the surface, the managerial aspects of the Agreement may well reveal nothing more than a few legally binding obligations with only a moderate compliance pull. When viewed from

J.A. Frowein, 'The Implementation and Promotion of International Law through National Courts', in *International Law as a Language for International Relations*, Proceedings of the UN Congress on Public International Law, New York, NY (US), 13–17 Mar. 1995 (Kluwer Law International, 1996).

 $^{^{126}}$ A deterrent effect, however, may require more than just sporadic cases, as pointed out by Bodansky & Brunnée, n. 18 above, p. 18.

¹²⁷ Lord R. Carnwath, 'Climate Change Adjudication after Paris: A Reflection' (2016) 28(1) Journal of Environmental Law, pp. 5–9, at 9.

¹²⁸ Cf., e.g., in Plan B Earth and Others v. Secretary of State for Transport, n. 92 above, paras 578–85, 603, 607–10.

Regarding an inherent enforcement aspect to a well-developed reporting mechanism, see R. Wolfrum, Means of Ensuring Compliance with and Enforcement of International Environment Law (Collected Courses of the Hague Academy of International Law, Vol. 272, 1998), p. 106.

¹³⁰ Cf. A. Zahar, 'A Bottom-Up Compliance Mechanism for the Paris Agreement' (2017) 1(1) Chinese Journal of Environmental Law, pp. 69–98.

¹³¹ Decision 1/CP.21, n. 14 above.

the standpoint of domestic litigation, international climate change law may suddenly appear much more effective. Therefore, the theoretical question of whether the law can respond to complex issues like climate change perhaps also must be answered by viewing the law in action at different levels and having due regard for 'cross-level' interlinkages. This perspective corresponds to the idea of a central but limited role of international law, whereby it provides an integrating value system and a framework for action and monitoring. ¹³² Climate change litigation, however, does not replace the accountability and ratcheting mechanisms established at the international level. It rather adds a complementary, multifaceted second mechanism which allows for the direct involvement of non-governmental actors.

As a review of climate policy at the national level is likely to spill over directly to the international level – mostly as a result of the NDC architecture – an accessible and efficacious court review of such policy further benefits the participation of civil society: it connects the right of access to justice with public participation in decision making in climate matters at national and international levels and thus provides an additional role for private actors in the governance framework. Thus, it complements the non-state actor mobilization as envisaged by Article 6(4) and (8) of the Paris Agreement. ¹³³

As a central element of climate change governance, NDCs are likely to become more relevant for the international and the domestic accountability mechanisms with the implementation of the Paris Rulebook. ¹³⁴ At the domestic level, this would provide further impetus for litigation aimed at assisting or directing political institutions to synchronize individual contributions with the overall goals of the Paris Agreement. ¹³⁵

A significant share of the problem in achieving effective mitigation of climate change lies in the fact that earlier international instruments failed to produce ambitious substantive domestic action on a global scale. A look at the evolution of the regime reveals that the problem has been at least as much related to the question of dynamic and adequate adjustment of goals as it has been related to the question of the 'bindingness' of international instruments. Domestic climate change litigation may be only part of the solution but, as a legal tool, it has significantly more potential under the truly global Paris Agreement than under its predecessor, the Kyoto Protocol: enhanced 'cross-level' interaction enables domestic litigation to play a significant role in ratcheting up ambition in climate change mitigation efforts and enhancing the internalization of internationally agreed standards.

¹³² Considering this role of international law in the context of global environmental problems, see, e.g., N.J. Schrijver, *The Evolution of Sustainable Development in International Law: Inception, Meaning and Status* (Martinus Nijhoff, 2008), p. 235.

¹³³ On the aspect of further 'democratization', see also D.B. Hunter, 'The Implications of Climate Change Litigation: Litigation for International Environmental Law-Making', in Osofsky & Burns, n. 110 above, pp. 357–74, at 370.

Although parties are 'strongly encouraged' to adjust their first NDCs correspondingly, the agreed standards apply only to communication of the second NDCs; first biennial transparency reports and national inventory reports will have to be submitted until 2024 and common time frames for NDCs must be applied from 2031 onward: see Decision 18/CMA.1, n. 76 above, para. 3; Decision 4/CMA.1, n. 72 above, para. 7; and Decision 6/CMA.1, n. 72 above, para. 2.

¹³⁵ Emphasizing the role of courts in concretizing the overall goal, see Sands, n. 5 above.