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European Yearbook of International Economic Law 2022

 Springer

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Editorial

When the editors of the European Yearbook for International Economic Law (EYIEL) published the open call for contributions for Volume 13 in December 2021, the world looked very different than it does today. The aggressive war launched by Russia against Ukraine on 24 February 2022 not only brought death and destruction to the citizens of Ukraine, but also fundamentally changed the political architecture in Europe and had profound ramifications on global commerce and investment. Assessing the impact of this war on international economic law and relations will be the subject of future editions of the EYIEL. Instead, the EYIEL 2022 focuses on a global crisis, which already existed before 2022 and will continue to shape lives across the globe even long after the war between Russia and Ukraine has ended: The climate change crisis.

As shown in the latest report of the Intergovernmental Panel on Climate Change (IPCC) entitled “Climate Change 2022: Impacts, Adaptation, Vulnerability”¹ human-induced climate change causes significant disruptions in nature affecting the lives of billions of people around the world. People and ecosystems least able to cope will face the most severe consequences. Heatwaves, droughts, and floods are increasing and occur simultaneously. They have exposed millions of people to acute food and water insecurity. The IPCC therefore calls for urgent, ambitious, and accelerated action to adapt to climate change and for rapid progress with regard to cutting greenhouse gas emissions.

In light of these facts, Part I of the present EYIEL volume specifically assesses the impact of climate change on international economic law and vice versa. The contributions look at the role of international trade, finance and investment law as well as constitutional and civil law and other subfields of domestic and international law. All chapters approach their topic in light of the fundamental question how the law can contribute to climate change mitigation and adaptation, but also which

¹Charter of the United Nations, 24 October 1945, 1 U.N.T.S. XVI (1945).

elements of the law actually stand in the way of effective actions against climate change.

Traditionally, the EYIEL begins with a distinguished essay on a topic of general interest. This year's focus reaches beyond the traditional realm of international economic law addressing climate change and constitutional law. *Martin Eifert* and *Michael von Landenberg-Roberg* contextualise the 2021 German Federal Constitutional Court's climate change judgement within climate constitutionalism. They argue that climate change requires constitutional responses based on fundamental rights or environmental protection clauses contained in many domestic constitutions. In the opinion of the authors, climate change challenges to constitutional law arise due to climate protection's dependence on scientific knowledge and international efforts as well as the need to take the time dimension into account.

The two subsequent contributions analyse legal issues in the context of international climate change law, in particular the United Nations Framework Convention on Climate Change (UNFCCC). *Nciko wa Nciko Arnold* critically discusses the specific instrument of Nationally Determined Contributions (NDCs) and argues that expecting countries of the Global South to account for greenhouse gas emissions of transnational corporations in the same way as in the Global North contradicts the principle of common but differentiated responsibilities. *Arnold* suggests that Trans-Nationally Determined Contributions (TNDCs) can provide an adequate solution to this challenge. *Rainer Maria Baratti* analyses the Green Climate Fund established by the Conference of Parties of the UNFCCC in 2010 and investigates the transformative role of this Fund in involving companies in the fight against climate change. In addition to addressing the institutional aspects, he assesses the Green Climate Fund with particular attention to the criticisms of indigenous peoples.

One of the most controversial instruments to support the fight against climate change are trade barriers aiming at conditioning market access, in particular carbon border adjustment mechanisms (CBAM). *Ilaria Espa* and *Kateryna Holzer* assess the EU Commission's CBAM proposal and explain how imports can be partially or fully excluded from the scope of application of this instrument. Based on this, they ask if the exclusion features could be overcome by opting for a carbon club approach. The authors also discuss which model of clubbing could be more appropriate with a view to foster mutual supportiveness between the multilateral trade and climate regimes. Still focusing on CBAM, *Christian Riffel* assesses the EU CBAM proposal on the basis of WTO law, in particular the GATT. He argues that although the proposed instrument would infringe Articles I:1 and II:1(b) of the GATT, it could be justified in principle. *Riffel* compares CBAM with alternative measures to prevent carbon leakage and proposes to revisit the interpretation of the chapeau of Article XX GATT and to reduce it to an arbitrariness test, because otherwise WTO Members may be forced to rely on the security exception of Article XXI GATT.

Continuing with the discussion of trade law issues, *Xinyan Zhao* analyses the WTO Panel Report on US-Safeguard Measure on PV Products which seems to have clarified that WTO members should use safeguard measures to protect their environmental industries against unfair competition. After explaining the positive and negative impact of the Panel's ruling on WTO members' national strategies for

promoting the use of clean energy, *Zhao* suggests a more comprehensive analytical framework balancing various sustainability elements to combat climate change.

Moving from the multilateral trading system to bilateral agreements, *Patrick Abel* discusses the trade and climate action linkage in the EU-UK Trade and Co-operation Agreement (TCA). In the TCA, the parties agreed on innovative provisions on climate action unprecedented in the EU's practice of free trade agreements. *Abel* compares the TCA to the designs of earlier EU free trade agreements (FTAs) and situates it within international climate change law. Based on this analysis, he suggests that the TCA may serve as a template for trade and climate action linkages in future EU FTAs.

After climate change and trade law, the next two chapters address international investment law. *Emily Webster* and *Myriam Gicquello* focus on the Energy Charter Treaty (ECT) and discuss the impact of investor-state dispute settlement (ISDS) under the ECT on EU Member States in response to fossil fuel phase-outs and policies promoting investment in renewable energies. The authors argue that ISDS created significant barriers to the introduction of laws, regulations, and policies facilitating energy transition, but they also draw attention to the possibilities of investment treaty protection supporting policies attempting to scale up renewable energies. The ECT is also the topic of *Mattia Colli Vignarelli's* contribution on making this treaty climate friendly. The author analyses the text of the "modernised" ECT with particular attention to the "flexibility mechanism" for the optional progressive carve out of fossil-fuel investments. *Vignarelli* argues that this mechanism would continue to ensure fossil-fuel investments protection at the crucial stage of energy transition. Therefore, the author also assesses a withdrawal of the EU and its Member States from the ECT.

After the more "traditional" fields of trade and investment law and their impact on climate change policies, the next chapters turn to regulations applicable to private economic actors. *Gudrun Zagel* and *Dieter Huber* discuss how finance flows can be made consistent with the aims of the Paris Agreement and focus specifically on the EU banking sector and its regulatory framework. The authors discuss how activities, tasks, and mandates of the private banking sector, banking supervisory authorities, and central banks in the EU and the related regulatory framework may affect the achievement of the objectives of the Paris Agreement. Finally, *Zagel* and *Huber* propose measures the EU banking sector can undertake and identify necessary changes in EU legislation.

In his contribution, *Philip Förster* assesses a very specific issue in the context of corporate sustainability reporting. He asks if the proposed so-called double materiality principle in the draft EU Corporate Sustainability Reporting Directive effectively tackles green washing. The materiality principle aims at streamlining company reports, focusing on the most relevant factors, and reducing information overload. The author concludes that the proposed new Article 19a of the EU Non-Financial Reporting Directive addresses the main challenges of non-financial reporting, i.e. information overload and greenwashing, but he also suggests that there is still a need for clarification of the details of the materiality principle.

The next two chapters deal with the emerging trend of climate change litigation. *Nikita Pattajoshi* takes a critical look at shareholder-based climate change litigation in the Global South. She shows that the landscape of shareholder climate change litigation is very Global North centric, both quantitatively and qualitatively. There are hardly any climate change litigation cases against corporations brought by shareholders in a country of the Global South. *Pattajoshi* suggests that there is an opportunity of shareholder climate lawsuits in the Global South and she predicts that they will increase and positively influence the climate change litigation landscape, even if they are unsuccessful in terms of the judicial outcome. Turning to different actors, *Astrid Iversen* focuses on the potentials of climate change litigation against central banks and analyses how the protection of central banks under the laws of immunity can be overcome. Drawing on the example of a 2021 judgement of the Swedish Supreme Court, *Iversen* argues that far-reaching immunity is not only unreasonable when taking into consideration the original justification for central banks' immunity but may also prompt a backlash against the immunity related to the core functions of central banks, namely monetary policy mandates.

The last four chapters of EYIEL 13 are devoted to EU law instruments and their impact on climate change. *Bernadette Zelger* begins with a look at environmental and sustainability aspects in EU competition law. In particular, she asks if the approach under Article 101 Treaty on the Functioning of the European Union (TFEU) can be expanded and developed into a "more economic & ecological approach". *Zelger* analyses the TFEU competition provisions and shows to what extent and on which basis environmental considerations and sustainability aspects can be taken account of within the current EU competition law framework. *Julia Wallner* and *Emil Nigmatullin* assess climate-related individual rights under EU secondary law following a climate change lawsuit in Austria in which the claimants tried to derive a right to require the issuing of an ordinance on fossil fuel sales bans from the EU Effort Sharing Regulation, which stipulates greenhouse gas emission reduction targets for EU Member States. The authors examine the existence of climate-related individual rights in EU secondary law and also discuss their limitations based on primary EU and international law.

The EU Emission Trading System (ETS) has been praised as an efficient instrument to reduce GHG emissions and mitigate the consequences of global heating. *Ina Frieling* discusses the expansion and adjustment of this regime by EU Member States' civil courts in climate litigation proceedings. She compares the 2021 Shell decision by The Hague District Court and the 2017 RWE decision of the Higher Regional Court of Hamm. The author asks how the EU ETS shapes the duty of care of companies with regard to climate change measures and how it can serve as a justification of an interference with the rights of others.

Concluding the focus section on climate change, *Concetta Maria Pontecorvo* attempts a first assessment of the proposed EU Regulation on Trade in Forest-Risk Commodities (FRCs) aimed at reducing the EU's global deforestation "footprint". Notwithstanding some important limits and shortcomings in the Commission's proposal, in particular relating to land tenure rights' protection, *Pontecorvo* argues that the EU has a moral duty to avoid contributing to the global destruction and

degradation of forests. However, the proposed regulation needs to be better aligned with WTO law.

Part II of EYIEL 13 on “Current Challenges, Development and Events in European and International Economic Law” only contains one contribution. *Frank Hoffmeister* assesses the practice of the European Commission in the area of trade defence since 2014. Based on his experience and knowledge as an “insider”, *Hoffmeister* analyses how the Commission exercised its political discretion in the field of anti-dumping measures, countervailing duties and safeguards. He concludes that there was a progressive development of Commission practice, in particular in the field of anti-dumping measures and a dynamic interpretation of the law in the last 7 years.

Most contributions to Part I of EYIEL 13 followed an open call for papers which not only ensured the high quality of the chapters but also led to more diversity in the group of authors. We are happy that authors from different regions of the world and at various stages of their academic or professional careers contributed to this volume and we hope that readers will appreciate the innovative and original approaches taken by the authors.

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Part I
Climate Change & Liability

Climate Change Challenges Constitutional Law: Contextualising the German Federal Constitutional Courts Climate Jurisprudence Within Climate Constitutionalism



Martin Eifert and Michael von Landenberg-Roberg

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Abstract Climate change requires constitutional responses. The fundamental rights or environmental protection clauses contained in most constitutions provide a basis for this endeavour. The particular difficulties of determining the constitutionally required level of climate protection, climate protection's dependence on scientific

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knowledge and international efforts, and the need to take the time dimension into account are specific challenges for any constitutional order. This article addresses these basic questions on constitutional law and presents the answers given by the Federal Constitutional Court in its landmark climate decision regarding the German Constitution.

1 Climate Change as a Challenge for Constitutional Law

The existential threat to humankind and the environment caused by anthropogenic climate change poses particular challenges to constitutional law. As the basic legal order of a polity, modern constitutions are intended to secure a fundamental level of freedom and protection for the individual irrespective of current political majorities.¹ Climate change and its consequences not only endanger people's lives and health but also their freedom.² In an environment that is becoming more and more hostile to human life due to increased global warming, rights to freedom are drying up into empty forms—either because of the hostile environment or because of late and desperate attempts to address climate change.

If constitutions should preserve their function of protecting the necessary pre-conditions of exercising individual and collective freedom, they cannot remain neutral with climate change being the biggest threat to humankind in the twenty-first century. The protection of the earth's climate through the transformation to greenhouse gas (GHG) neutrality in time, as well as protection against the impacts of the already inevitable level of global warming through adaptation, must also be a normative imperative of the constitution, if only for reasons of the self-preservation of a dignified life and freedom.³

Freedom, however, must not only be constitutionally protected by the requirement of a profound and timely transformation process towards climate neutrality; it must also be guaranteed with respect to the transformation process as such. Climate protection must be implemented in a way that preserves freedom and human rights to the greatest possible extent.⁴ Constitutional law needs to reflect the dangers to civil liberties that climate protection obligations might entail.

From the perspective of the protection of freedom, climate change thus poses two central challenges for constitutional law and its interpretation: First, the level of

¹For constitutions rooted in the liberal-democratic tradition see Grimm (1991), pp. 116–119.

²See Reder (2012), S. 66 f.; Ekardt (2014), pp. 192–198.

³On the impact of the right to human dignity e.g. The Lahore High Court, *Leghari v. Federation of Pakistan*, Judgement of 25.1.2018, W.P. No. 25501/2015, pp. 10 f.

⁴Emphasising the necessity of safeguarding human rights in mitigation and adaptation activities UNEP (2015), p. 26. The Paris Agreement also expressly recognizes in its preamble, that “Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights”.

protection required under constitutional law must be determined with regard to the tolerated extent of climate change. Second, freedom must be preserved to the greatest possible extent within this transformation process, and the burdens associated with the transformation process must be distributed equitably within and between generations. Overall, constitutional law should define cornerstones for the inevitable path to climate neutrality.

The global challenge of climate change has triggered an international debate on the role of law and the courts.⁵ In this debate, the general issues related to the characteristics of climate change and climate change politics encounter specific (national) legal systems.⁶ This broadens understanding and allows for a range of arguments to emerge, but the particular constitutional answer remains dependent on the constitutional law in question. This article focuses on the role of constitutional law regarding climate change.⁷ It aims to contribute to the debate in two ways. Firstly, it identifies the basic constitutional questions that arise in most jurisdictions in the face of the challenge of climate protection, and secondly, it presents the German Federal Constitutional Court's response to each of these basic questions as developed in its climate decision.^{8,9}

⁵From the extensive literature see Posner (2007), p. 1925; Preston (2011), p. 3; Markell and Ruhl (2012), p. 15; Okubo (2013), p. 741; Peel and Osofsky (2015); Burger and Grundlach (2017); Setzer and Bangalore (2017), p. 175; Bouwer (2018), p. 347; Saurer (2018), p. 679; Graser (2019), p. 271; Burgers (2020), p. 55; Mitkidis and Valkanou (2020), p. 11; Setzer and Higham (2021); Peel and Markey-Towler (2021), p. 1484; Wagner (2021), p. 2256; Franzius (2021a), p. 121; Payandeh (2021), p. 64; Rodi and Kalis (2022), p. 5; de Vilchez Moragues (2022); Lange and Lippold (2022), p. 685; Fellenberg (2022), p. 913; Wegener (2022), p. 425; and further contributions in Kahl and Weller (2021). For a special focus on the post-Paris situation Wegener (2020), p. 17; Beauregard et al. (2021), p. 652; Preston (2021), p. 1; Saiger (2022). An instructive review of the research on courts and litigants in climate governance is provided by Setzer and Vanhala (2019), pp. 1–19; Peel and Osofsky (2020), pp. 22–26.

⁶In particular, see articles in Alogna et al. (2021); Sindico and Mbengue (2021); Lin and Kysar (2022); and furthermore Vanhala (2013) p. 447; Peel and Lin (2019), p. 679; Setzer and Benjamin (2019), p. 77; Zhao et al. (2019), p. 349; Saiger (2020), pp. 51 ff.; Chaturvedi (2021), p. 1459; Torre-Schaub (2021), p. 1445; Voigt (2021), p. 697; Cameron and Weyman (2022), p. 195; Kotzé and Du Plessis (2022), p. 615.

⁷For a broader notion of “constitutionalism” see the contributions in Jaria-Manzano and Borrás (2019) and Ghaleigh (2021), p. 445.

⁸Bundesverfassungsgericht (Federal Constitutional Court), Order of the First Senate of 24 March 2021—1 BvR 2656/18, paras. 1–270 (hereafter cited as: BVerfG, Climate Decision). The decision is officially published in BVerfGE 157, pp. 30–177. A translation in English is available at http://www.bverfg.de/e/rs20210324_1bvr265618en.html (last accessed 3 October 2022).

⁹This decision has triggered a controversial debate in German literature. For rather critical views Calliess (2021b), p. 355; Fassbender (2021), p. 2085; Hofmann (2021), p. 1587; Kloepfer and Wiedmann (2021), p. 1333; Möllers and Weinberg (2021) p. 1069; Polzin (2021) p. 1089; Ladeur (2022), p. 13; Lenz (2022), p. 73; von Weschpfennig (2022), paras. 19–24; more ambivalent Buser (2021), p. 1409; Krämer-Hoppe (2021), p. 1393; Ekardt and Heß (2021), p. 579; Berkemann (2021), p. 701; Stark (2021), p. 237; Minnerop (2022), p. 135; Kirchhoff (2022), pp. 9–31; Volkmann (2022), p. 5; Winter (2022a), p. 209; differentiating Kahl (2022a), p. 2; Franzius (2021b), p. 136; for a decidedly positive evaluation Eifert (2021a), p. 1085; Schlacke (2021),

2 Types of Constitutional Provisions Relevant to Climate Protection

The starting point of all consideration must be the constitution itself. If the state's obligation to protect the Earth's climate should not only be an ethical postulate but a juridical constitutional requirement, climate protection must be anchored in the text of the constitution. Climate protection can be explicitly required in the constitutional text itself or can be inferred from it by way of interpretation. A textual basis can be found in special environmental protection clauses as well as in fundamental rights provisions.

2.1 *Specific Climate Protection Clauses*

To date, only few constitutional texts explicitly mention climate protection. However, climate protection is expressly incorporated in the preamble or the main text of eleven constitutions worldwide, mostly more recent ones from Latin America, Africa and Asia.¹⁰ The form and content of the provisions differ considerably. Only rarely has the state been made so explicitly responsible as, for instance, in the Constitution of Ecuador, where the state is obliged to “adopt adequate and cross-cutting measures for the mitigation of climate change, by limiting greenhouse gas emissions, deforestation, and air pollution” and “to protect the population at risk”.¹¹ More commonly, general commitments to climate protection without a specific duty or the formulation of respective expectations with uncertain legal implications can be found.¹²

2.2 *General Environmental Protection Clauses*

Insofar as constitutional texts do not expressly contain a climate protection provision, as is particularly the case in Europe and North America, it can also be convincingly derived from general environmental protection clauses. These can be found as general constitutional provisions or right guarantees for a healthy

p. 912; Sinder (2021), p. 1078; Wahnschaffe and Lücke (2021), p. 1099; Aust (2022), p. 150; von Landenberg-Roberg (2022), pp. 269–276. Defending the decision against points of criticism that were regularly voiced Eifert (2022b), pp. 542–545.

¹⁰ According to Ghaleigh et al. (2022), p. 7, these include: Algeria, Bolivia, Côte d'Ivoire, Cuba, Dominican Republic, Ecuador, Thailand, Tunisia, Venezuela, Vietnam and Zambia.

¹¹ Art. 414 of the Constitution of the Republic of Ecuador.

¹² For a more detailed account, see Ghaleigh et al. (2022), p. 9; May and Daly (2019), pp. 235 ff.

environment in more than 150 constitutional documents worldwide.¹³ Here, too, the range in wording, normative content, density of regulation and enforceability in court is considerable.¹⁴ However, it is hard to imagine that the protection of the environment, regardless how the provision is formulated (for instance protection of a “healthy environment” or “natural basis of life”), does not include the global climate as part of its most basic conditions. These form a basis for the state’s obligation to protect the climate.

2.3 *Fundamental Rights*

Constitutional requirements for climate protection measures can also be derived from fundamental rights which are enshrined in most constitutions. Due to the extraordinary risks of unrestrained climate change, the fundamental rights to life, health and property are at the centre of the discussion.¹⁵ However, the effects of climate change on the undisturbed exercise of civil liberties have also been recognized and discussed from an early stage.¹⁶

Since greenhouse gases are predominantly emitted by private parties, fundamental rights as traditional limitations to state action do not offer any protection. Climate protection obligations can only be derived from fundamental rights to the extent that positive obligations are acknowledged. However, particularly with regard to the right to life and physical integrity, a fundamental duty of the state to protect against dangers from third parties or natural events is widely recognized.¹⁷ Protection against the impacts of climate change on life and health represents merely a specification of this obligation which in turn requires measures to mitigate climate change.

In the constitutional assessment of climate protection measures, fundamental rights maintain their traditional role by ensuring the proportionality of obligations imposed and the equality of its distribution among different groups. What is new here is the question of whether this task also extends to the temporal dimension.

¹³ UNEP, Environmental Rule of Law, First Global Report, 2017, p. 2, 154–161; Lewis (2018), pp. 43–55; Gross (2021), p. 83.

¹⁴ For an instructive overview see Boyd (2015), pp. 171–186.

¹⁵ Jaimes (2015), pp. 170–181; Lewis (2018), pp. 157–165; Bickenbach (2020), p. 170; However, other fundamental rights can also be affected such as the right to private life, family and home or, especially in cases involving indigenous communities, rights concerning the preservation of culture (cf. UN HR Committee, Daniel Billy et al. v. Australia, CCPR/C/135/D/3624/2019). Kahl (2022b) observes that in absence of independent rights to climate protection the normative allocation of climate change-related human rights impacts are arbitrary.

¹⁶ See McInerney-Lankford et al. (2011), pp. 18 f.

¹⁷ Birchler (2020), pp. 192–202; Braig and Ehlers-Hofherr (2020), p. 591.

2.4 *Constitution Matters*

It has become obvious that most constitutions contain provisions that could serve as a basis for climate change commitments, and that fundamental rights at least have some influence on climate protection measures. The constitution matters when it comes to climate change and so does the design of the applicable provisions. Climate protection clauses and environmental protection clauses can protect the climate regardless of its impact on human health and life. They may go beyond anthropocentric protection. Fundamental rights are generally tied to human beings. Furthermore, fundamental rights offer protection (only) against the impact of climate change on, inter alia, health and life. Thus, at least in the mid-term, and in some regions even in the long-term, climate adaptation measures that mitigate these impacts are equivalent to climate mitigation measures.

Provisions may also differ with respect to access to courts.¹⁸ General clauses may only be constitutional goals or obligations that are not enforceable in court, whereas fundamental rights generally give individuals access to the courts.¹⁹ In the end, the more precise the constitutional obligations to protect the climate are, the better existing climate protection measures can be related to them and thus the burden-sharing over time can be assessed in the light of fundamental rights.

3 **Constitutional Standard-Setting Against the Background of Climate Protection's Special Features**

Regardless of the type of constitutional provision that can be used to anchor a climate protection imperative in the respective national context, four central questions arise from the specifics of the climate protection challenge.

3.1 *Climate Protection as a Global Challenge*

The first challenge results from the global nature of anthropogenic climate change. This is caused by the cumulative effect of global emissions of greenhouse gases and

¹⁸Burger and Grundlach (2017), pp. 28 f.; Payandeh (2021), para. 18; Kelleher (2022), pp. 108–110.

¹⁹However, individual standing provisions might also be narrowly interpreted or applied. For instance, access to the CJEU is particularly restricted by its jurisprudence on individual standing. For a critique, see Winter (2022b), pp. 367 ff. See also the decision of the Swiss Supreme Court, *Association of Swiss Senior Women for Climate Protection v. Federal Department of the Environment Transport, Energy and Communications*, judgement of 20.5.2020, 1C_37/2019, where the court held that the plaintiffs' asserted rights had not been affected with sufficient intensity. For a critical discussion see Reich (2020), pp. 501 ff.

their associated increase in concentration in the atmosphere. Therefore, no state can stop global warming through national measures alone. Individual national contributions to the increase in greenhouse gas concentrations still differ considerably.²⁰ However, even the complete transformation of the currently largest emitters to greenhouse gas neutrality would only slow down the global temperature rise, but not stop it in the long term. At the same time, due to the cumulative effect of greenhouse gas emissions, no country's emissions are so insignificant that its reductions would not contribute to solving the problem.²¹ No country could therefore fundamentally refuse to make the long-term transition to a GHG-neutral economy, in view of its currently small percentage share in causing the increase of GHG concentrations in the atmosphere or because other countries are still willing to increase their greenhouse gas emissions.²² If this were to happen, it would seriously undermine the necessary momentum in international negotiations.

The operationalisation of constitutional climate protection requirements must therefore be adjusted to the basic structure of the atmosphere as a “global common”²³ and climate protection as a problem of collective action.²⁴ Due to the limited power of individual state action in climate issues, the formulation of constitutional obligations can only be carried out with special consideration of the international context of action. National constitutional law therefore has the task of activating state action to solve problems at the international level and of embedding national climate policy in the international climate protection regime as a crucial framework for global coordination.

3.2 Climate Protection as a Knowledge-Dependent Challenge

The second challenge is the various scientific uncertainties that exist regarding climate change and its appropriate mitigation. There is no longer any scientific disagreement that anthropogenic greenhouse gas emissions are causing current global warming.²⁵ However, with regard to complex interactions within the climate system, the exact consequences of a certain increase of the global average temperature can still only be predicted abstractly at best. The same applies to the questions of when and where such consequences are to be expected. Even on the issue of

²⁰Data collected from the reported national GHG inventories can be accessed via https://di.unfccc.int/time_series.

²¹See e.g. Rechtbank Den Haag, *Urgenda v The Netherlands*, Judgment of 24.06.2015, C/09/456689/HA ZA 13-1396, paras. 4.79 and 4.90; Hoge Raad of the Netherlands, *Urgenda v The Netherlands*, Judgment of 20.12.2019, 19/00135, no. 5.7.8.

²²See Supreme Court of United States, *Massachusetts et al. v. Environmental Protection Agency*, Judgement of 2.4.2007, 549 U.S. 497 (2007), p. 23.

²³Edenhofer et al. (2015), pp. 260 ff.; Stoll (2016), pp. 131–141.

²⁴IPCC (2014), p. 17.

²⁵IPCC (2021), p. 5.

causation, the seemingly simple relationship between human greenhouse gas emissions, the increase in GHG concentrations in the atmosphere and the rise in average temperature may lose its linearity and thus its predictability once certain tipping points are reached.²⁶ For the same reason, the ecological consequences of reaching a particular temperature threshold can only be roughly predicted with varying degrees of probability, even though scientific projections on the danger of exceeding the 1.5 °C threshold in particular have become increasingly substantiated and consolidated over time.²⁷

Constitutional climate protection requirements must therefore align normative specifications with scientific evidence without petrifying current states of scientific knowledge into normative provisions too hastily. Therefore, a sufficiently flexible link between constitutional law and scientific knowledge is required. In this context, a science-oriented specification of the climate protection imperative must avoid disguising genuine normative issues as scientific questions. In particular, the question of the acceptable level of risk cannot be passed off as a question of pure scientific knowledge.

3.3 *Climate Protection as a Temporal Challenge*

The third challenge is the temporal dimension of climate change.²⁸ The current level of global greenhouse gas emissions and the associated increase in greenhouse gas concentrations determines the timeframe remaining for society to transition to climate neutrality if global temperatures are not to rise above a certain threshold. This time frame must be brought into line with that required for a successful transformation. Government climate policy must therefore, on the one hand, radically *decelerate* the consumption of the remaining total emission budget by reducing emissions. On the other hand, it must sufficiently *accelerate* the necessary structural transformation processes in the economy and society through appropriate regulations, knowledge-generating measures and the promotion of innovation.²⁹

The main political challenge here is that an enormous reduction and transformation efforts must be made at a time when the catastrophic impacts of global warming are just becoming apparent. The transformation to a net-zero emission society is a necessarily long-term process whose start can no longer be postponed without significantly increasing the already considerable burdens of transformation and shifting them into the future. As a rule, however, the future or long-term interests that are central here remain systematically underrepresented in the democratic

²⁶ IPCC (2021), pp. 630–635.

²⁷ IPCC (2018), pp. 7–11.

²⁸ Pahl et al. (2014), p. 376; Eifert (2022a), p. 75.

²⁹ von Landenberg-Roberg (2022), p. 280.

process because its legitimization cycles are structured by short-term election periods.³⁰

Constitutional requirements for climate protection must call for timely political action and also develop normative safeguards with regard to the temporal distribution of transformation burdens. Without timely initiation of the transformation, stabilization of the Earth's temperature at a tolerable level and effective health protection are unlikely, and a one-sided shift of then outsized burdens of transformation to future generations is likely.

3.4 *Climate Protection as an Institutional Challenge*

If the temporal dimension of climate change and the systematic underrepresentation of long-term interests in the political process imply that constitutional law is legitimately intended to oblige the legislature to protect the climate, the relationship between the legislature and (constitutional) courts in specifying this obligation becomes of central importance.³¹ On the one hand, courts are needed to remedy the short-sighted neglect of timely climate protection; on the other hand, the design of the path to climate neutrality involves numerous trade-offs and prioritization and distribution issues, so that it is also necessarily a political process.³² Striking the balance is very difficult and must be embedded in the respective constitutional separation of powers.³³

The task of constitutional interpretation is therefore to specify climate protection obligation in a way that assigns the overall responsibility for the concrete design of the transformation path to climate neutrality to the legislature.³⁴ It can only be entrusted to a parliament to make the manifold weighing, prioritising and burden-distributing decisions that inevitably go hand in hand with the implementation of the transformative process to climate neutrality. This is because only the legislative process is capable of balancing all the interests affected and providing a public forum to politicise and debate the fundamental strategic choices.

³⁰ Steinberg (1998), pp. 335 ff.; Franzius (2021a), pp. 140–142.

³¹ See also High Court of New Zealand, *Thomson v. The Minister for Climate Change Issues*, Judgment of 2.11.2017, CIV 2015-485-919 [2017] NZHC 733, paras. 133 f.; Cremer (2019), pp. 278 f.; Franzius (2021a), pp. 133 f.

³² Wegener (2019), p. 15.

³³ See Franzius (2021a), pp. 133 f.; Payandeh (2021), pp. 76–80.

³⁴ See also Gross (2019), p. 362.

4 Obligations to Protect Against Climate Change: Determination and Application of the Constitutional Standard

Although most constitutions can respond to climate change in some way, its characteristics make it difficult to derive constitutional requirements. This applies to the requirements from environmental protection clauses and to the requirements from fundamental rights. In the following, we will address the difficulties and present the Federal Constitutional Court's response in its first leading climate change decision as an example. We will first address the obligation to climate protection and then the requirements for the transformation path.

The German constitution does not contain an explicitly formulated climate protection clause. However, it provides for a general environmental protection clause in Article 20a Basic Law.³⁵ In the absence of any specific right to a healthy environment, individual rights against the state to offer protection against climate change and its dangerous consequences could only be derived from general fundamental rights, in particular the right to life and health from Article 2 (2) of the Basic Law (GG).³⁶ The Federal Constitutional Court uses both options—the general environmental protection clause (Sect. 4.1) and the right to life and health (Sect. 4.2)—to embed climate protection as a state obligation in the constitution.

4.1 *Constitutional Climate Protection Obligations Arising from General Environmental Protection Clauses*

Given the impact of the earth's climate on almost all ecosystems, it is protected as a central component of the environment by a general environmental protection clause. This also applies to Article 20a of the Basic Law.³⁷

³⁵ According to Article 20a of the Basic Law, the state shall protect “mindful also of its responsibility towards future generations” the “natural foundations of life and animals by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order”. For an analysis of the provision, see Durner (2021), paras. 61–71; Schulze-Fielitz (2015), paras. 23–54; with special regard to climate protection Gross (2009), pp. 366 f.; Härtel (2020), pp. 578 f.

³⁶ Arguing for the introduction of a procedural fundamental right to environmental protection, Calliess (2021a), pp. 323 ff.

³⁷ In Germany the global climate was recognised early on by constitutional jurisprudence as an object of protection under Article 20a of the Basic Law without any special reasoning. See BVerfGE 118, 79 (110 f.); 137, 350 (368 f. paras. 47, 378 para. 73); 155, 238 (278 para. 100).

4.1.1 Normative Openness of a Climate Protection Obligation as an Initial Problem

However, deriving normative implications from such a general and open obligation requires a conceptual framework that translates highly complex climate change into manageable targets (Sect. 4.1.2) and enables the determination of a level of protection (Sect. 4.1.3).

4.1.2 Preserving a Temperature Threshold as the Core of Climate Protection

The global average temperature is a key parameter in climate science and can also serve as a point of reference for constitutional climate protection targets. It represents the complex processes of change in the Earth's climate system and their likely effects in a simplified form. The obligation to climate protection can be translated into the aim of not exceeding a temperature threshold and has been used in this way by the Federal Constitutional Court.³⁸

However, the determination of a temperature threshold is necessarily associated with further requirements. Because of the almost linear relationship between the increase in greenhouse gas concentrations in the atmosphere and the increase in the Earth's temperature, further increase in greenhouse gas concentrations above a level corresponding to the temperature threshold must be prevented.³⁹ It is therefore not only necessary to take measures to reduce greenhouse gas emissions. Rather, when the relevant temperature threshold is approached, the level of human greenhouse gas emissions must reach climate neutrality. A temperature threshold as core of the constitutional climate protection requirement thus includes the demand for a timely transition to greenhouse gas neutrality.⁴⁰

4.1.3 Constitutionally Bound Prerogative of the Legislature to Determine the Relevant Temperature Threshold

Determining the temperature threshold at which global warming should be halted is the central issue for a specific constitutional climate protection requirement. Three potential points of reference are available for this purpose.

The first option would be to draw directly on the findings of climate science. IPCC reports, in particular, could provide an essential point of reference.⁴¹ Based on

³⁸BVerfG, Climate Decision, para. 198.

³⁹IPCC (2021), pp. 27–31.

⁴⁰BVerfG, Climate Decision, para. 198.

⁴¹Hinting in this direction High Court of New Zealand, *Thomson v. The Minister for Climate Change Issues*, Judgment of 2.11.2017, CIV 2015-485-919 [2017] NZHC 733, para. 133.

their forecasts of the anticipated effects of certain degrees of global warming, a temperature threshold could be determined, which, if exceeded, would threaten severe and incalculable consequences for humans and the environment. It could mark the constitutionally tolerable degree of global warming. However, scientific forecasts are still subject to considerable uncertainties. Secondly, any determination of a tolerable temperature threshold is accompanied by considerable questions of normative assessments. This applies in particular to the level of acceptable risk. Dealing with scientific uncertainty and assessing and weighing the risks to be taken is, however, first and foremost a task of the political process. Climate science findings and constitutional benchmarking should therefore not be short-circuited even when setting the relevant temperature threshold.

The second option is to draw on normative decisions already found in the international climate protection regime. The temperature target contained in the Paris Agreement (PA) is obviously particularly suitable for this. The advantage would be that this temperature target already represents a deliberative decision of an international political process that has taken into account climate science findings and risk analyses as well as conflicting social and economic interests. The criticism of concealing the inescapable assessment and valuation dimension in dealing with climate science findings therefore does not apply to this approach. However, international law provisions like the temperature target in the Paris Agreement might only prove to be the lowest common denominator of the contracting parties. Direct adoption might also weaken international negotiation dynamics in the future. Furthermore, the notion of incorporating international law provisions without a legislative act of implementation does not fit easily in jurisdictions with a dualistic approach to international law obligations. This has been pointed out for the German constitution.⁴² Although national climate protection efforts will only be successful in the end if they are embedded in the international context, there is no reason to conclude that the state's constitutional obligations should simply be short-circuited with the results it has achieved in the negotiation process at the international level.

The disadvantages of the first two approaches are avoided if the specification of the constitutional temperature threshold is initially left to the prerogative of the legislature, while binding the exercise of this prerogative to limiting constitutional directives that reflect the specific challenges of climate change (see Sect. 3). This conception was chosen by the Federal Constitutional Court in its climate decision, invoking in particular the wording of Article 20a of the Basic Law. It explicitly assigns a central role to legislation in the protection of the natural foundations of life.⁴³

When the legislature specifies the temperature threshold, two constitutional directives become central: Firstly, the legislator must be guided by the state of climate science.⁴⁴ Its decision must be science-based. New and sufficiently

⁴² Kahl (2022a), p. 16; Schlacke (2021), p. 915.

⁴³ BVerfG, Climate Decision, para. 205; Britz (2022), pp. 827 f.

⁴⁴ BVerfG, Climate Decision, para. 211.

substantiated findings on the progression of global warming, its consequences and its manageability could therefore oblige the legislature to adjust the target. This would be subject to constitutional review.⁴⁵ Secondly, the temperature target must be selected in such a way that it does not impede the search for a solution at the international level, but rather facilitates it. The legislature must therefore not set a temperature target that falls short of the ambition agreed upon at the international level.

This approach involves the legislature in the specification of the constitutional climate protection requirement, without exempting it entirely from constitutional restraints. It allows for a flexible alignment of constitutional standard-setting with science and the international climate protection regime.⁴⁶ It also takes into account the importance of the parliamentary decision-making process in public debate without ignoring its structural weaknesses concerning long-term responsibility.

If such an approach is to lead to a general request for the legislature to determine a temperature threshold, it presupposes an existing fundamental provision by the national legislator to which further reference can be made. For Germany, the Federal Constitutional Court was able to refer to Section 1 Sentence 3 of the Federal Climate Change Act (*Bundes-Klimaschutzgesetz—KSG*).⁴⁷ This cites the obligation under the Paris Agreement as the *basis* for the German Climate Protection Act. According to the Court, the temperature limit set is thus intended to serve as a basic orientation for climate protection measures and to specify the constitutional obligation. This interpretation is supported by the fact that this climate target is the internationally agreed temperature limit of Art. 2(1)(a) PA, which the legislator has deliberately and explicitly taken as a basis. Since the state can ultimately achieve the objective of slowing climate change only through international cooperation, the legislator, in adopting the temperature limit of Art. 2(1)(a) PA, has set the fundamental course of national climate protection law in a direction that allows the constitutional mandate for climate protection to be effectively embedded in an international framework.⁴⁸

In reviewing this specification of the temperature target, the Court held that the legislator is “currently” operating “within the leeway to specify the law granted by Article 20a GG”, because the Paris Agreement was adopted “on the basis of scientific findings compiled in preparation for the Paris Climate Change

⁴⁵ BVerfG, Climate Decision, para. 212.

⁴⁶ For a positive evaluation in this regard, see also Gärditz (2021), pp. 314 f.

⁴⁷ § 1 Federal Climate Change Act reads: “The purpose of this Act is to provide protection from the effects of worldwide climate change by ensuring achievement of the national climate targets and compliance with the European targets. The ecological, social and economic impacts shall be taken into consideration. The basis of the Act is the obligation according to the Paris Agreement, under the United Nations Framework Convention on Climate Change, to limit the increase in the global average temperature to well below 2°C and, if possible, to 1.5°C, above the pre-industrial level so as to minimise the effects of worldwide climate change, as well as the commitment made by the Federal Republic of Germany at the United Nations Climate Action Summit in New York on 23 September 2019 to pursue the long-term goal of greenhouse gas neutrality by 2050.”

⁴⁸ BVerfG, Climate Decision, para. 210.

Conference”.⁴⁹ Although the IPCC Special Report from 2018 on the impacts of global warming of 1.5 °C indicates that the climate-related risks for natural and human systems—especially the probability of crossing tipping points—are greater in a 2 °C warming scenario than in a 1.5 °C scenario,⁵⁰ the Court found that in view of the explicitly stated ranges and uncertainties, Article 20a of the Basic Law still leaves the legislator with leeway to determine the climate goal in terms of how it evaluates the dangers and risks. The limits of this legislative leeway have not been violated, as the Court added, “at least not at present”.⁵¹

In sum, the temperature limit set out in the third sentence of Section 1 of the KSG, in accordance with the PA and scientific findings, is therefore currently the essential specification of the constitutional obligation under Article 20a of the Basic Law.⁵²

4.1.4 Addressing the International Dimension and Advancing Knowledge

Setting a temperature target is not sufficient to establish constitutional requirements. While it includes a requirement for a (timely) transition to greenhouse gas neutrality (see Sect. 4.1.2), it does not relate the national contribution along this path to the contributions of other states. Nor does it define how to deal with scientific advances in climate science.

Obligation to Participate in International Climate Protection Efforts

Due to the global nature of the climate change challenge (see Sect. 3.1), a constitutional obligation to take climate action cannot be confined to the obligation to adopt national measures alone.⁵³ It inherently has an international dimension from which the German Federal Constitutional Court has derived the obligation to engage internationally to tackle climate change at the global level and to promote climate protection measures within an international framework.⁵⁴

However, climate protection does not become effective through agreements alone; it must also be implemented. The Court has therefore extended the constitutional obligation to take climate protection measures to the implementation of agreed solutions.⁵⁵ Since all states depend on international cooperation to protect the climate, all states must avoid creating incentives for others to undermine that cooperation. This is all the more important as the Paris Agreement, with its core

⁴⁹BVerfG, Climate Decision, para. 211.

⁵⁰IPCC (2018), pp. 5 f.

⁵¹BVerfG, Climate Decision, para. 211.

⁵²BVerfG, Climate Decision, para. 213.

⁵³See also Schlacke (2022), p. 123.

⁵⁴BVerfG, Climate Decision, para. 201.

⁵⁵BVerfG, Climate Decision, para. 201.

concept of nationally determined contributions (NDCs),⁵⁶ very much relies on mutual trust. Creating and fostering trust in the willingness of the parties to achieve the target is key to the effectiveness of the current UN Climate Protection Regime in general. The Federal Constitutional Court has therefore particularly emphasised that every state should strengthen international confidence that ambitious climate action—particularly the pursuit of treaty-based climate targets—can be successful while safeguarding decent living conditions and fundamental freedoms.⁵⁷

Commitment to National Climate Protection Independent of Success at the International Level

The collective action problem of climate change definitely cannot be solved if constitutional climate protection obligations are made dependent on the success of international climate protection efforts. Rather, the problem can only be addressed if states cannot escape their shared responsibility simply by referring to greenhouse gas emissions in other states.⁵⁸ Due to the causal contribution of even the smallest emission of GHGs, national climate action remains obligatory even if international cooperation cannot be legally fixed in an agreement. The Federal Constitutional Court has established the state's obligation to protect the climate irrespective of any such agreement and stressed that the state must continue seeking opportunities to make national climate action efforts more effective within an international framework.⁵⁹

Adaptation of Climate Policy to the Progress of Scientific Knowledge

Climate protection is strongly linked to climate science. The temperature target (see Sect. 4.1.2), as well as national and international climate protection measures, must be dynamically aligned with scientific findings in order to provide effective protection. Both general environmental protection clauses and fundamental rights protection must take this into account. The Federal Constitutional Court has interpreted the environmental protection clause (Art. 20a GG) to place the legislator under a permanent obligation to adapt environmental and climate change law to the latest scientific findings.⁶⁰ It has explicitly noted that in the event that the temperature target under Art. 2(1)(a) PA should prove insufficient to adequately prevent climate change, Art. 20a GG would oblige the state to reach a more stringent international agreement.⁶¹

⁵⁶ Art. 4 (2) Paris Agreement. See further Bodle and Oberthür (2017), pp. 93 f.; Winkler (2017), pp. 146 f.

⁵⁷ BVerfG, Climate Decision, para. 203.

⁵⁸ See also Hoge Raad of the Netherlands, *Urgenda v The Netherlands*, Judgment of 20.12.2019, 19/00135, no. 5.7.7.

⁵⁹ BVerfG, Climate Decision, para. 201.

⁶⁰ BVerfG, Climate Decision, para. 212.

⁶¹ BVerfG, Climate Decision, para. 212.

4.1.5 Constitutional Review by Applying the Temperature Target with Recourse to a Budget Approach

The remaining key challenge is if and to what extent such still general obligations translate into a specific GHG reduction contribution or even a reduction pathway. To translate temperature targets into emissions targets, climate science has developed what is referred to as the budget approach.⁶² Notwithstanding all remaining uncertainties, this approach allows in principle to determine a remaining global CO₂ budget with regard to a certain temperature target in a comprehensible and reliable way.⁶³ The budget approach can therefore be used as a potential guiding parameter for climate policy to comply with a temperature target. The total emissions perspective differs from legislature's widespread use of GHG budgets to set reduction targets.⁶⁴ The Federal Constitutional Court has referred to the residual budget approach as a scientific basis for a judicial review of the required level of climate protection.⁶⁵

Remaining National Emission Budget as the Only Approximately Identifiable Parameter

However, here too the global dimension (see Sect. 3.1) complicates the matter. While the determination of the remaining global CO₂ budget for complying with the temperature target is essentially a question of climate science, its allocation among states is not. The determination of the remaining national budget depends in particular on questions of global equity. Since these issues also cannot be determined by national constitutional law, a residual national budget cannot be derived in purely scientific or constitutional terms. It can only be precisely determined at the price of ignoring scientific uncertainties and declaring the normative criterion of allocation as constitutionally prescribed. An appropriate use of this approach in the constitutional framework is therefore only possible as an "approximately identifiable" parameter, not as a fixed quantity.⁶⁶

⁶² See, with further references, WBGU (2008), pp. 21–40; IPCC (2018), pp. 104–107; SRU (2020), pp. 5–58.

⁶³ References to the budget approach have also been made in, among others, Hoge Raad of the Netherlands, *Urgenda v The Netherlands*, Judgment of 20.12.2019, 19/00135, no. 4.6, 7.4.3 and implicitly in The Supreme Court of Ireland, *Friends of the Irish Environment v The Government of Ireland*, Judgment of 31.7.2020, Appeal No 205/19, no. 4.6.

⁶⁴ Examples are Germany and France. Such a use, however, enables courts to evaluate climate protection measures against the legislative budget targets (cf. Conseil d'État, Decision of 1.7.2021, 427301 (Grand-Synthe II)).

⁶⁵ In the absence of alternative control variables, it is highly reasonable for the legislature to also take this approach, but it is not obliged by the constitution to do so (see BVerfG, Climate Decision, para. 218). The budget approach is therefore not constitutionalised, but only used in the context of necessary scientific controls. As long as there is no alternative, however, this boundary is blurred in practical applications. For a constitutionalisation of the budget approach argues Abel (2022), p. 336.

⁶⁶ Clearly stated in BVerfG (Chamber), Decision of 18.1.2022, 1 BvR 1565/21, para. 5; Britz (2022), p. 832.

Despite this restriction, the approach of a residual national CO₂ budget allows for meaningful constitutional control of national climate policy against the benchmark of the temperature target. A two-step approach can be followed. The first step is to calculate a residual national budget by taking the residual global budget for the temperature target into question and selecting a hypothetical allocation criterion from a range of possible criteria or rather by defining a range that corresponds to plausible criteria. The range is determined by the criteria's compatibility with the abstract constitutional climate protection principles, in particular the postulate that international cooperation based on mutual trust must be facilitated (see Sect. 4.1.4). The second step is to evaluate the national climate policy and its effect on emission reduction in the light of this residual national budget. Due to the above-mentioned uncertainties and evaluations involved in the definition of the national budget (or range), as well as in forecasts of future emissions, any judicial control along these lines is limited to obvious mismatches between the self-imposed target and the measures taken and needs to allow for legislative leeway. However, even such limited judicial control has proven to be meaningful in many areas of constitutional law.

The German Federal Constitutional Court has taken this approach.⁶⁷ As a starting point it took the national residual budget calculated by the German Advisory Council on the Environment (SRU). This was calculated based on per capita emission rights for the world's population.⁶⁸ The per capita distribution is not only a plausible and potentially mutual agreeable figure in the middle range of the broad spectrum of internationally discussed allocation keys,⁶⁹ but it is also highly compatible with the *common, but differentiated responsibility and respective capability principle* as the main reference point under international law.⁷⁰ Furthermore, it is in line with the constitutional requirement to participate in international efforts to solve the climate crisis in a way that enhances their success and the fact that the Paris Agreement on Climate Change is based on mutual trust and national contributions that are recognized by all parties as appropriate.⁷¹

The Court then addressed the uncertainties associated with this point of reference and the national temperature target. It explicitly acknowledged the uncertainties within the SRU budget calculations, potential increases of the budget due to international cooperation according to Article 6 of the Paris Agreement and negative emission technologies in the future. On the other hand, the Court has highlighted the not overly restrictive temperature threshold of 1.75 °C on which the calculations of the remaining national budget by the SRU were based. In light of these factors, the Court did not consider the emission paths of the Federal Climate Act to be *currently* in violation of the requirements of Article 20a GG, although it expressly stated that it

⁶⁷ BVerfG, Climate Decision, para. 212.

⁶⁸ SRU (2020), pp. 5–58.

⁶⁹ SRU (2020), pp. 15–20.

⁷⁰ Voigt and Ferreira (2016), pp. 288–303; Rajamani and Guérin (2017), pp. 81–88.

⁷¹ For a more detailed analysis, see von Landenberg-Roberg (2021), pp. 124–139.

does not seem certain that the residual budget would not be exceeded.⁷² It also noted that there is increasing evidence in the scientific community that, particularly in view of the danger of reaching tipping points, the 1.5 °C temperature limit should be targeted to avoid the most serious climate change impacts and that therefore the legislature might have to adjust its current emission paths in the future.⁷³ Thus, it did not find a violation of the environmental protection clause, but clearly noted that the legislature was approaching doing so.

4.2 *Fundamental Rights Guarantees of Protection*

State obligations to protect the climate and to adapt to the adverse effects of climate change can also be derived from fundamental rights. This has been discussed early on in both human rights and constitutional literature and is now widely recognised.⁷⁴ This stems from the state's duty to protect fundamental rights and legal interests affected by climate change. With regard to the classic constitutional guarantees, health, life and property are particularly affected.

4.2.1 *Combining Climate Protection and Adaptation*

Focusing on the protection of health, life and property has two implications, also emphasised by the Federal Constitutional Court. Firstly, such a duty is anthropocentric from the outset. In contrast to the environmental protection clauses, here the prevention of climate change is not an ecological end in itself, but serves to prevent climate change-associated damage to humans. The violation of duties to protect given by fundamental rights can therefore not be derived directly from normative assumptions and conclusions relating to climate action. Although there is a great deal of overlap between climate protection and the protection of human life and physical integrity, they are not identical.⁷⁵

Secondly, protection can also be ensured through adaptation measures. Instruments that do not mitigate climate change, but merely counter the resulting hazards (heat waves, floods, hurricanes, etc.) are also suitable for fulfilling the duty to protect. However, if global warming exceeds a certain level, especially reaching tipping points, climate dynamics may lead to a hazardous situation that can no longer

⁷² BVerfG, Climate Decision, paras. 230 f.

⁷³ BVerfG, Climate Decision, para. 212.

⁷⁴ See only Brown (2008), pp. 195 ff.; Bodansky (2010), pp. 519–522; McInerney-Lankford et al. (2011), pp. 11 ff.; Jaimes (2015), pp. 165 ff.; Peel and Osofsky (2018), pp. 42 ff.; Gross (2021), pp. 84 ff.; for a detailed analysis with regard to the European Convention on Human Rights, Peters (2021), pp. 177 ff.

⁷⁵ BVerfG, Climate Decision, para. 163.

be managed by adaptation measures alone. In the long term, therefore, the imperative not to let climate change exceed a certain temperature threshold with manageable impacts and to ensure a timely transition to greenhouse neutrality also derives from fundamental rights.⁷⁶ Conversely, even the most ambitious climate protection measures today cannot limit all negative consequences and dangers from climate change that is already taking place. Thus, in addition to ambitious climate protection policies, the state must take precautions today against the already unavoidable consequences of climate change.⁷⁷ The obligations to protect require combining reduction and adaptation measures.⁷⁸

4.2.2 International Component of the Duty to Protect

The duties to protect must take into account the global dimension of climate protection in the same way as the general environmental protection clauses (see Sect. 4.1.4). The fact that a nation state is dependent on international commitment for effective climate protection does not excuse it from a duty to protect,⁷⁹ but supplements it with the obligation to additionally engage within international frameworks.⁸⁰

4.2.3 Legislative Discretion and Limited Standard of Review

Obligations to protect are generally difficult to determine; this is also true for protection against the effects of climate change. This follows the general doctrines on obligations to protect and the corresponding applicable standard of judicial review. Since there are many different measures that could be taken, it is generally up to the legislature and not to the courts to decide how risks should be addressed, what a strategy should look like and how it should be implemented.⁸¹ In German constitutional law, the legislature is given a margin of appreciation and evaluation concerning the level of protection as well as leeway concerning the measures taken.⁸²

⁷⁶BVerfG, Climate Decision, para. 157; Rechtbank Den Haag, *Urgenda v. The Netherlands*, Judgment of 24.6.2015, C/09/456689/HA ZA 13-1396, no. 4.75.; Hoge Raad of the Netherlands, *Urgenda v. The Netherlands*, Judgment of 20.12.2019, 19/00135, no. 7.5.2.

⁷⁷BVerfG, Climate Decision, para. 150.

⁷⁸See also UN HR Committee, *Daniel Billy et al. v. Australia*, CCPR/C/135/D/3624/2019, para. 8.3 with respect to Art. 6 ICCPR.

⁷⁹Rechtbank Den Haag, *Urgenda v. The Netherlands*, Judgment of 24.6.2015, C/09/456689/HA ZA 13-1396, no. 4.79; Gross (2020), pp. 340 f.

⁸⁰BVerfG, Climate Decision, para. 149.

⁸¹BVerfG, Climate Decision, para. 152.

⁸²BVerfGE 96, 56 (64); BVerfG 121, 317 (356); BVerfG 142, 313 (337 para. 70).

Correspondingly, the standard of judicial review leaves much deference to the legislature. The German Federal Constitutional Court will find a violation of a duty to protect only if *no precautionary measures whatsoever* have been taken, or if the adopted provisions and measures prove to be *manifestly unsuitable* or *completely inadequate* for achieving the required protection goal, or if the provisions and measures *fall significantly short* of the protection goal.⁸³

According to this general doctrine, the Federal Constitutional Court concluded in the climate decision, that the Federal Climate Change Act 2019 did not constitute a completely unsuitable protection concept⁸⁴ as it included a commitment to climate neutrality by 2050, a reduction target for 2030 of at least 55% compared to 1990, and the obligation to continue emission reductions beyond 2030. Supplemented by possible adaptation measures, this was also not considered to provide completely inadequate protection.⁸⁵ In view of the forecast uncertainties, the level of protection aimed at with the specified temperature target was also within the legislature's discretion, i.e. it did not fall significantly short of the protection target, "at least not presently".⁸⁶ The Court was therefore not (yet) prepared to establish a violation of the duty to protect in this specific case. From a comparative law perspective, however, it should be noted that the Federal Climate Protection Act 2019 is already a relatively ambitious and further developed climate protection law.

It is worth emphasizing that the Court nevertheless derived some requirements from the duty to protect. In addition to requiring a combination of reduction and adaptation measures, it also required a limit on the total volume of greenhouse gases until greenhouse gas neutrality is achieved. Thus, the legislature must limit the total amount of emissions in a way that is consistent with an appropriate temperature target via annual budgeting or the establishment of continuous reduction targets.

5 Preserving Freedom on the Path to Climate-Neutrality

Climate change policies regularly place some sort of burden on activities that involve GHG emissions to incentivize reductions and encourage the development of alternatives.⁸⁷ Many of these activities are protected by fundamental rights, so interference with them must be justified. The justification of the measures follows the general rules that usually include some kind of proportionality test.⁸⁸ The German constitution protects all types of activities and requires justification for every

⁸³ BVerfGE 142, 313 (337 f. para. 70); BVerfG, Climate Decision, para. 152.

⁸⁴ BVerfG, Climate Decision, paras. 155 f.

⁸⁵ BVerfG, Climate Decision, para. 157.

⁸⁶ BVerfG, Climate Decision, para. 165.

⁸⁷ See e.g. Bowen and Fankhauser (2017), pp. 123–135.

⁸⁸ Bumke and Voßkuhle (2019), paras. 123–160.

burdensome state action after a proportionality test, which focuses on whether the measure taken is suitable and necessary to achieve its goal and the interference is appropriate. This is standard constitutional standard procedure.⁸⁹

The interesting point and innovative approach of the German Federal Constitutional Court concerns the time dimension of climate policy. The regular proportionality test is limited to the current intervention and its effects. It may cover future effects that are foreseeable direct consequences of the intervention but it does not extend beyond that. The Federal Constitutional Court has expanded the proportionality test as to include the relationship between current interventions on the one hand and future interventions that have not yet been specified but whose severity is required by constitutional law on the other hand.⁹⁰ This extension aims to adapt the proportionality test to the special circumstances of climate policy, at least where it is subject to a constitutional obligation. The Court convincingly assumes that today's measures are a decisive factor regarding the severity of future measures and that only by taking the latter into account when assessing today's interventions can a burden shift into the future be prevented.⁹¹

5.1 The Inextricable Connection Between Present and Future Freedom

Climate protection must achieve climate neutrality before the threshold of acceptable temperature increase is exceeded. Since temperature rise depends directly on GHG emissions, especially carbon dioxide, this amounts to allocating a fixed remaining GHG budget over time. The path to climate neutrality can be represented as a curve of available GHG emissions over time that starts in the present at the current level of emissions and must end near zero before the remaining budget is exceeded. As with any fixed budget, you can only spend a tonne of GHG once. The more greenhouse gases are emitted in the near future, the fewer are available before climate neutrality must be achieved. The flatter the emissions curve is in the near future, the steeper it must fall afterwards.⁹²

This fundamental relationship has significant constitutional implications because GHG emissions are closely linked to the exercise of freedom. Almost all activities today involve direct or indirect GHG emissions. Although in some areas the emitting processes may be completely replaced by carbon-neutral alternatives in the near future, many of them will involve at least some GHG emissions before the entire transformation to a climate neutral economy is achieved. Given this relationship, it is

⁸⁹ Jackson (2015), p. 3095; Schlink (2012), p. 718; Barak (2012), p. 738; Kühling (2011), pp. 501–511.

⁹⁰ BVerfG, Climate Decision, paras. 120, 192.

⁹¹ BVerfG, Climate Decision, paras. 192–194.

⁹² IPCC (2022), pp. 21–43.

very plausible that the more stringent the GHG emission reduction requirements, the more freedom will be constrained. Therefore, the slope of the curve that represents the path to climate neutrality is also an indicator of the degree of endangered freedom. The flatter the emissions curve in the near future, the greater future freedom is threatened by the inherently even steeper curve in the future.

5.2 Necessity to Protect Future Freedom at Present

This inextricable connection between present and future freedom also means that future freedom must already be protected at present. If very stringent measures have to be taken later due to a high utilization of the remaining total budget in the near future, then they can then no longer be prevented. Since these stringent measures would be necessary to achieve the temperature target, they would be justified.⁹³ This is mandatory if achieving the temperature target is itself constitutionally binding. It is equally compelling if the measures are necessary to fulfill constitutional obligations to protect human health or human life. In the view of the Federal Constitutional Court, both are the case in German constitutional law.⁹⁴ However, in view of the elementary importance of climate protection for society as a whole and the particular weight of human health and life, it is difficult to imagine that the interventions would not be justified even without these constitutional obligations. They would then only not be legally mandatory to take.

5.3 The Intertemporal Preservation of Freedom and Its Difficulties

5.3.1 Making the Future the Present

The Federal Constitutional Court has developed the “intertemporal preservation of freedom” as a constitutional answer to this problem.⁹⁵ The doctrinal argumentation is explicitly based on the described connection between present and future freedom and is essentially as follows: because current GHG restrictions also determine the severity of future restrictions, they interfere not only with current freedom but also with future freedom. Even though the constraining measures on future freedom have yet to be determined by the state and are therefore not technically part of a current “impairment”, their severity is determined by current measures to such an extent that

⁹³ Britz (2022), p. 832.

⁹⁴ BVerfG, Climate Decision, para. 187.

⁹⁵ BVerfG, Climate Decision, paras. 116–123, 183.

this effect in the future already corresponds to a current “impairment”. Consequently, this effect is treated as a current impairment and requires justification.⁹⁶

5.3.2 Assessing Current Climate Protection Measures’ Future Impact on Freedom

Such a justification initially follows the usual pattern. German constitutional law doctrine requires that all impairments to fundamental rights must fully comply with constitutional law (known as the *Elfes-Doktrin*).⁹⁷ This includes full compliance with requirements that cannot be enforced as such by individuals, such as the distribution of competences in the federal state or purely “objective” constitutional obligations like Art. 20a GG. Current climate protection measures that impair a fundamental right must therefore comply with the general environmental clause of Art. 20a GG and its climate protection requirements. This inhibits what would be completely inadequate measures, but does not necessarily include specifications on the temporal distribution of burdens.⁹⁸

However, the time dimension is (also) addressed by the proportionality test. Because of the “impairment-like” effect of current measures, the legislature must also achieve an “intertemporal preservation of freedom” by maintaining temporal proportionality. Burdens must not be shifted so far into the future that future freedoms are necessarily unduly impaired because of the then remaining (too-small) GHG emissions budget.⁹⁹ This proportionality test differs from the traditional one. It does not examine the relationship between the goal of an intervention on the one hand and the impairment of freedom on the other. The goal, climate protection, is indispensable because it is constitutionally required. What is examined is the distribution of the impairments over time, comparing the impairments of the current climate protection measures and the expected impairments (derived from the constraints of the remaining budget) in the subsequent period(s).

This comparison is not trivial, though. It is easy to compare the available GHG emission budgets for different time periods—at least if national climate protection plans follow a budget-driven approach or allow a conversion to budget-consumption. These problems are associated with deriving the required degree of freedom sacrifice from budget constraints. Transforming the economy into a net zero economy is a complex, non-linear process that depends on the pace and diffusion of crucial innovations, which are highly uncertain. It is plausible to assume that

⁹⁶BVerfG, Climate Decision, paras. 184–189.

⁹⁷BVerfGE 6, 32 (41). For further discussion see Eifert (2021b), paras. 84 ff.

⁹⁸The German Federal Constitutional Court has also included a time dimension in the environmental protection clause. The obligation to sustainably protect the environment prevents its use in such a way that future generations can only preserve it at the price of radical abstinence of their own (BVerfG, Climate Decision, para. 193).

⁹⁹BVerfG, Climate Decision, paras. 192 ff., 243.

excessively high short-term emission reduction targets will entail unreasonably high restrictions on freedom, since available innovations and replacement technologies will also require a certain amount of time to implement. It is also plausible to assume that substantial residual budgets will be needed in the final stages of the transformation process because processes that are particularly difficult to transform or replace will then be excluded. The difficulties of converting remaining budgets into expected impairment of liberty are such that this proportionality test will exclude only gross disproportions and obvious misallocations as a substantive test.

In the case of the German Climate Protection Law at issue in the Federal Constitutional Court's climate protection decision, the climate protection plan allowed such a high volume of GHG emissions until 2030 that (based on the expected level of GHG emission in 2030), the state's underlying residual national budget would have been used up by the following year.¹⁰⁰ Nevertheless, the German Constitutional Court did not assume an unconstitutional impairment of future freedom. It did, however, state that there was a danger that freedom would then be unreasonably restricted. This danger did not make the Climate Protection law unconstitutional in substance, but the Court required procedural safeguards to mitigate the danger.¹⁰¹

5.3.3 Procedural Safeguards to Internalize Future Effects and Trigger Innovations

Because the transformation process is so complex and depends on innovation, a long-term orientation regarding emission budgets for different sectors and industries is crucial. Only such a long-term orientation would allow for anticipation of future impacts, provide a basis for specific expectations and trigger investment and innovation in response to climate change. The German Federal Constitutional Court has called for such a long-term orientation as a guideline and incentive for timely planning and innovation.¹⁰² It demanded emission budgets, or at least the criteria for future emissions budgets, to be set by the legislature and continuously developed through 2030. The requirement of such an act of legislation is rooted in German constitutional dogma, which demands legislation on all issues of significant importance to fundamental rights, thereby ensuring a high level of legitimacy and public debate on these issues.¹⁰³

¹⁰⁰ BVerfG, Climate Decision, para. 246.

¹⁰¹ BVerfG, Climate Decision, paras. 243 ff.

¹⁰² BVerfG, Climate Decision, paras. 252 ff.

¹⁰³ Bumke and Voßkuhle (2019), paras. 1413–1440.

6 Conclusion

The particular challenges of climate change do not make it easy to translate the obvious need for climate protection into constitutional requirements. The Climate Change decision of the Federal Constitutional Court in Germany, however, is one plausible way to deal with them. It determines the climate protection target in a way that is sensitive to science and international law while respecting the prerogative of the legislature. It transforms the crucial time dimension of climate protection into constitutional requirements that, on the one hand, force legislators to extend their time horizon and chart a path to greenhouse gas neutrality, while, on the other hand, respecting the political nature of the many compromises that must be made along the way.

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Trans-Nationally Determined Contributions for Climate Justice: Resolving a Paris Agreement's Contradiction That Is Working Against Developing States



Nciko wa Nciko

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Abstract As part of tackling climate change, the Paris Agreement expects that developing states impose its temperature goal upon the Transnational Corporations (TNCs) that are operating in them. This expectation contradicts the principle of common but differentiated responsibility (CBDR-RC). The CBDR-RC principle expects developed states to be best placed to impose the temperature goal upon these TNCs. This is so because developed states caused climate change and possess more capabilities to impose the Paris Agreement's temperature goal upon TNCs than developing states do. I argue that this contradiction has a much deeper cause that cannot be unravelled and its underlying disease correctly diagnosed unless we historicise it. Only in the process of such historicisation can we develop an adequate cure. The deeper cause, I venture to demonstrate, lies in capitalism; and a possible adequate cure, in what I am coining "Trans-Nationally Determined Contributions (TNDCs)." By TNDCs, I mean the most ambitious efforts that a TNC's home state (usually a developed state) commits to account for the greenhouse gas emissions that its TNC is responsible for in a host state (usually a developing state). Guided by Issa

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Shivji, my point of departure is that law is the concentrated form of politics. As such, TNDCs will offer an adequate cure to the contradiction I am dealing with only if we present them in a manner that appreciates the politics that define how decisions are adopted at a United Nations Climate Change Conference of the Parties (COP) and how such decisions are complied with within the climate change regime. I conclude with a few remarks on the place of climate justice in this contribution, noting that if we are to act on TNDCs, we have to do so before 2030.

1 Introduction

Standing on the stage of the 76th session of United Nations General Assembly, Barbados Prime Minister, Mia Amor Mottley, contented herself with stating in a few words the sheer frustration of many developing states in climate change governance. She stated:

How much global temperature rise must there be? before we end the burning of fossil fuels? And how much more must sea level climb in small island developing states before those who profited from the stockpiling of greenhouse gas emissions can contribute to the loss and damage that they occasioned? rather than asking us, to crowd out the fiscal space that we have for development, to cure the damage caused, by the greed of others? . . . It is not beyond us to solve this problem. . . If we can find the will to send people to the moon and solve male baldness.¹

The Paris Agreement's principle of common but differentiated responsibility (CBDR-RC principle), on the face of it, seems to provide some answers to the sentiments embodied in this quotation. Under this principle, the Paris Agreement provides that developed states have more historical responsibility, which has given them "present" capabilities, to tackle climate change.² However, the Paris Agreement goes ahead to contradict this principle by requiring that developing states impose, through their Nationally Determined Contributions (NDCs),³ the Paris Agreement's temperature goal upon the Transnational Corporations (TNCs) that are operating in them.⁴ This temperature goal is to keep us on a globe whose surface temperature is below 2 °C, although best efforts shall pursue 1.5 °C, above pre-industrial levels.⁵

¹Mia Amor Mottley, Barbados - Prime Minister Addresses United Nations General Debate, 76th Session, 21–27 September 2021, New York, https://www.youtube.com/watch?v=wz_IDnay3H8 (last accessed on 8 December 2022).

²Paris Agreement, art. 2, Dec 12, 2015.

³Paris Agreement, art. 4, Dec 12, 2015.

⁴Bäckstrand et al. (2015), pp. 566–567. When it comes to non-state actors such as TNCs, the PA expects them to simply play a role, somewhat limited, of consultation in the formulation of NDCs. See also PA, art. 3., Dec 12, 2015.

⁵Paris Agreement, art. 2. 1.a, Dec 12, 2015.

NDCs are the most ambitious efforts that each party to the Paris Agreement commits to account for the greenhouse gas (GHG) emissions that are emanating from within its borders. Evidence published in the peer-reviewed scientific journal *Nature Climate Change* (2020) reveals that about a fifth of global GHG emissions come from TNCs.⁶ A bulk of TNCs' transactions that lead to these emissions occurs in TNCs' host states (usually developing states) rather than in their home states (usually developed states).⁷ Yet, and this further buttresses the contradiction that I am dealing with, developing states have been unable to impose obligations arising out of many international instruments, for reasons not only to do with the lack of political goodwill in some developing states but also to do with the lack of technological capabilities. Glencore Plc, Royal Dutch Shell, and Chinese state-owned construction TNCs can help illustrate this. Glencore Plc is a mining company that has Switzerland, a developed state, as its home state. It operates in more than 50 states and⁸ most of these states have been unable to impose international obligations upon it. Glencore is, for instance, about 30 times wealthier than the Democratic Republic of the Congo (DRC),⁹ a developing state in which it controls the Kamoto Copper Company and Mutanda-Kansuki Company. These are its subsidiaries and have given it dominion over about 30% of the global cobalt production.¹⁰ Glencore produces at this scale without paying attention to the GHG emissions it is concentrating in the atmosphere.¹¹ The DRC does not have the technological capabilities to assess the amount of GHG emissions that Glencore has been concentrating in the atmosphere from its mining operations. This is, many a times, coupled up with a lack of political goodwill on the part of DRC government officials.¹²

A 2019 influential report on China's Belt and Road Initiative (BRI) has also found that the 126 states—most of which are developing states—that have joined China's BRI represented 28% of the global GHG emissions in the year 2015. The

⁶Zhang et al. (2020), pp. 1–13.

⁷Itzhak et al. (2021), pp. 377–437.

⁸See Statista, Glencore's number of employees from 2015 to 2021, <https://www.statista.com/statistics/315055/number-of-employees-at-glencore/> (last accessed on 6 December 2022).

⁹Swissinfo.ch, NGOs accuse Glencore of human rights violations, <https://www.swissinfo.ch/eng/business/congolese-copper-ngos-accuse-glencore-of-human-rights-violations/38800880> (last accessed 6 December 2022).

¹⁰Ibid. See also Holslag (2021), p. 8.

¹¹In the months of April and May 2022, I was conducting fieldwork in the DRC mining cities of Lubumbashi and Kolwezi. The fieldwork led me to this conclusion after interviewing civil society organisations such as l'Initiative Bonne Gouvernance et Droits Humains (IBGDH), l'Observatoire Africain de Ressources Naturelles (Afrewatch), le Carter Center, et l'Action Contre l'Impunité pour les Droits Humains (ACIDH). I also interviewed state institutions such as le Ministère de l'Environnement et Tourisme in Kolwezi, la Direction pour la Protection de l'Environnement Minier (DPEM) in Kolwezi, l'Agence Congolaise de l'Environnement (ACE) in Kolwezi, le Procureur Général près la Cour de Lualaba in Kolwezi, la Générale des Carrières et des Mines (Gécamines) in Lubumbashi, la Division des Mines in Lubumbashi, and le bureau de la Météorologie in Lubumbashi.

¹²Ibid.

28% was arrived at based on historical infrastructure and investment patterns as well as growth projections of these states.¹³ China's BRI mainly spearheads carbon-intensive mega infrastructural development projects in mostly developing states through Chinese state-owned construction TNCs. The developing states across which the BRI cuts have been unable to impose the obligations arising out of international agreements such as the Paris Agreement upon these TNCs.¹⁴

A domestic court in the Netherlands, a developed state, gives yet another example of the inability of developing states to impose the Paris Agreement's temperature goal upon TNCs. In the 2021 case of *Four Nigerian Farmers and Stichting Milieudefensie v Shell*, this court issued a decision obliging Royal Dutch Shell to ensure that, by 2030, it should have reduced the GHG emissions for its entire value chain by 45% below its 2019 levels.¹⁵ Part of the motivation behind this case was that developing states such as Nigeria have been unable to align Shell's extractive activities with the Paris Agreement's temperature goal.¹⁶

Examples that demonstrate how developing states not only lack the political goodwill but also the technological capabilities to impose the Paris Agreement's temperature goal upon TNCs are so many that discussing them would go beyond the remit of this contribution. It may, however, suffice to note that Kofi Annan, former United Nations (UN) Secretary-General, would never have instigated conversations around giving TNCs a human face at the Davos World Economic Forum in 1999 if it were not for developing states' lack of political goodwill and/or capabilities to impose international obligations upon TNCs.¹⁷ Further, there would never have been any appointment of a UN Special Representative on the subject of business (mostly alluding to TNCs) and human rights in 2005 if it were not for the same lack.¹⁸

I argue that the contradiction of leaving developing states with the obligation to impose the Paris Agreement's temperature goal upon TNCs yet they do not have the political good will and/or capabilities to do that has a much deeper cause that cannot be unravelled and its underlying disease correctly diagnosed unless we historicise it. Only in the process of such historicisation can we develop an adequate cure. The

¹³ Jun and Zadek (2019), p. 4.

¹⁴ Ibid.

¹⁵ *Four Nigerian Farmers and Stichting Milieudefensie v Shell*, para 4.4.18.

¹⁶ Friends of the Earth International, Justice at last – Dutch court orders Shell to compensate Nigerian farmers for oil spill harm, 5 February 2021, <https://www.foei.org/justice-at-last-dutch-court-orders-shell-to-compensate-nigerian-farmers-for-oil-spill-harm/> (last accessed 6 December 2022).

¹⁷ United Nations, Secretary-General Proposes Global Compact On Human Rights, Labour, Environment, In Address To World Economic Forum In Davos, 1 February 1999, <https://press.un.org/en/1999/19990201.sgs6881.html> (last accessed 6 December 2022).

¹⁸ Ruggie J, Celebrating Kofi Annan's contributions to business and human rights, Business and Human Rights Resource Centre, 18 September 2018, <https://www.business-humanrights.org/en/blog/celebrating-kofi-annans-contributions-to-business-and-human-rights/> (last accessed 6 December 2022).

deeper cause, I venture to demonstrate, lies in capitalism; and a possible adequate cure, in what I am coining “Trans-Nationally Determined Contributions (TNDCs).” By TNDCs, I mean the most ambitious efforts that a TNC’s home state (usually a developed state) commits to account for the GHG emissions that its TNC is responsible for in a host state (usually a developing state). Guided by Issa Shivji, my point of departure is that law is the concentrated form of politics.¹⁹ As such, TNDCs will offer an adequate cure to the contradiction I am dealing with only if we present them in a manner that appreciates the politics that define how decisions are adopted at a United Nations Climate Change Conference of the Parties (COP) and how such decisions are complied with within the climate change regime. I conclude with a few remarks on the place of climate justice in this contribution, noting that if we are to act on TNDCs, we have to do so before 2030.

Before unravelling the deeper cause, diagnosing the underlying disease, and, in the process, developing an adequate cure, it is proper to make one thing clear. My use of “developing states” in this contribution is more symbolic than anything else. I have in mind only developing states that are host—rather than home—states for TNCs, and that do not have enough political goodwill and/or technological capabilities to impose the Paris Agreement’s temperature goal upon TNCs. Developing states such as China should be understood as developed states, at least in the context of this contribution. The 2014 US-China Joint Announcement on Climate Change may give some legal effect to this understanding. Thanks to this Announcement, the CBDR-RC principle became “common but differentiated responsibility and respective capabilities *in light with national circumstances*” in the Paris Agreement.²⁰ Experts on climate governance have held that the addition “*in light of national circumstances*” should be understood to have come in to place more obligations even upon a developing state, which, by way of its current emissions, Gross Domestic Product, geographical situation, and status in the world, has enough capabilities to tackle climate change. China, for example, has risen to the rank of world powers with enough capabilities to tackle climate change. It should not, therefore, hide behind the veil of a “developing state” and exempt itself from obligations that TNDCs may call for.²¹

2 Historicising the Contradiction

Situating law in the well-known distinction between transactions and negative side effects can help us locate the deeper cause of the CBDR-RC contradiction in capitalism. This distinction emphasises the fact that a certain transaction has

¹⁹ Shivji (2020), pp. 157–161.

²⁰ The White House, President Barack Obama, obamawhitehouse.archives.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change (last visited Jan. 25, 2022).

²¹ Hilton and Kerr (2017), pp. 53–54.

“negative side effects on those not participating in [it] and, hence, on overall utility”.²² In essence, since 1603–1604, there has been a law—international law and TNCs’ home states domestic law—that has been facilitating TNCs’ transactions such as those over resources, property rights, capital movement, and market access. However, this law has had minimal to zero interest in dealing with the side effects arising out of such transactions.²³ Other than dehumanizing projects such as the trans-Atlantic slave trade and colonialism, other side effects that have resulted from TNCs’ transactions have been concentrations of GHG emissions in the atmosphere. Unfortunately, the Paris Agreement of 2015, as a relatively recent additional layer to this law, only came to deal with these concentrations without interfering with the transactions from which they emerge.²⁴

2.1 The Law of Transactions

The Treaty of Westphalia, written in 1648, for which Hugo Grotius is celebrated as the father of international law, and which made states the only powerful entities that international law had to have for subjects, should not be taken as the beginning of international law. Around 1648, “state” could only mean “European state”.²⁵ Anthony Anghie draws our attention to an alternative history of international law, one which still celebrates Grotius as its father but which was written with 1603–1604 as its beginning.²⁶ This hidden history can help us understand how the CBDR-RC contradiction is embedded in capitalism and the different shapes it kept on taking across time and space. In his first lecture at the Afronomicslaw Academic Forum, and hopefully not his last, Anthony Anghie takes us to the fact that, in 1603–1604

Grotius was drawn into the sensational controversy over privateering in the Southeast Asian trade [...] acts of piracy by a private concern did not sit well in the public opinion of many citizens and allies. When asked by a friend with [Dutch East India] Company connections to write a brief justifying a recent and very lucrative seizure of a Spanish cargo, Grotius went on to produce not only an ardent defense of the capture but an investigation into the deep principles of law that connected those separated by nation and culture. The resulting manuscript, provisionally titled *De Indis (On the Indies)*, was never published in full until long after Grotius’ death (appearing in 1868 as *Commentary on the Laws of Prize and Booty*). [...] Many of the arguments worked out in the manuscript—that there is a basic law of nature determined by the need to reconcile self-preservation with social life, that the authority to govern and even to punish derive from the rights of natural persons before the

²² Viñuales (2020), p. DOI30.

²³ Ibid, pp. DOI30-31.

²⁴ Ibid, p. DOI32.

²⁵ Chimni (2004), p. 7.

²⁶ Anghie (2022) Afronomicslaw, <https://www.afronomicslaw.org/category/video-content/afronomicslaw-academic-forum-guest-lecture-series-sovereign-alien-history> (last accessed 4 July 2022).

founding of civil societies, and that claims to jurisdiction over the open seas are invalid—would give direction to his later works.²⁷

Anghie's point is that the Eastern Grotius—as he refers to Grotius the corporate lawyer who did a legal consultancy for the Dutch East India Company (VOC—*Vereenigde Oostindische Compagnie*) as seen in the excerpt above—heavily influenced the Western Grotius—as he refers to Grotius (the same person) who is celebrated as the father of international law.²⁸ Anghie establishes that it is from this legal consultancy for VOC that Grotius developed his ideas on the sovereignty doctrine. Grotius elaborated upon these ideas in his foundational treaties, which ended up informing the content of the Treaty of Westphalia in 1648. Grotius, arguing for the VOC, submitted that a trading company (a TNC) could legitimately engage in a private war against other merchants, or even against the agents of a sovereign state, to enforce natural law, which mandated that TNCs should enjoy absolute freedom to trade in the name of self-preservation.²⁹

This submission was made before the conceptualisation of the sovereignty doctrine.³⁰ Anghie's point that the Eastern Grotius influenced the Western Grotius is compelling because, in Westphalia in 1648, it was accepted as a maxim of international law that “every sovereign nation has the power, as inherent in sovereignty, and essential to self-preservation, to forbid the entrance of foreigners within its dominions, or to admit them only in such case and upon such conditions as it may see fit to prescribe.”³¹ We can readily see similarities between this accepted maxim of international law and Grotius's submission for the VOC.

The history of international law, written with 1603–1604 as its beginning, makes one fact loud and clear—that, even before declaring states as the only powerful entities that international law should regulate, the young and brilliant Grotius had sufficient knowledge that TNCs such as the VOC were as powerful as European states. The VOC is the largest TNC to have ever existed in the history of human-kind.³² Its trade routes, with its affiliate the Dutch West India Company, went from Japan, through the Cape of Good Hope, all the way to the Americas.³³ Present-day

²⁷Blom A, Internet Encyclopedia of Philosophy, <https://iep.utm.edu/grotius/> (last accessed 4 July 2022).

²⁸Anghie (2022) Afronomicslaw, <https://www.afronomicslaw.org/category/video-content/afronomicslaw-academic-forum-guest-lecture-series-sovereign-alien-history> (last accessed 4 July 2022).

²⁹Haakonssen (2006), pp. xviii–xix.

³⁰Anghie (2022) Afronomicslaw, <https://www.afronomicslaw.org/category/video-content/afronomicslaw-academic-forum-guest-lecture-series-sovereign-alien-history> (last accessed 4 July 2022).

³¹Martin (1989), pp. 547–578.

³²Sipalla H (2022) Afronomicslaw, <https://www.afronomicslaw.org/index.php/category/analysis/twail-asserting-pride-global-south-epistemes-through-critiquing-silences> (last accessed 4 July 2022).

³³Anghie (2022) Afronomicslaw, <https://www.afronomicslaw.org/category/video-content/afronomicslaw-academic-forum-guest-lecture-series-sovereign-alien-history> (last accessed 4 July 2022).

TNCs such as Apple, Saudi Aramco, Amazon, and Alphabet are nowhere near the net worth of VOC and its peers. When adjusted to the present-day value of the United States dollar, VOC's net worth stood at \$7.9 trillion in 1637, Mississippi Company at \$6.5 trillion in 1720, and South Sea Company at \$4.3 trillion in 1720.³⁴ TNCs were as powerful as European states. Nevertheless, Grotius went ahead to afford them absolute freedom to trade, in the name of self-preservation. Perhaps this was not problematic for Grotius because, at the time, a "Europe" in which powerful European TNCs would be going to war against European states was not conceivable, given the market structure that the trans-Atlantic slave trade established. This market structure brought European states and their TNCs together in a united front to plunder, delegitimise and subordinate other peoples. Indeed, European TNCs' focus was on the trans-Atlantic slave trade around the time Grotius was defending the VOC. The slave trade began in the fifteenth century and went on for about 400 years. It was succeeded by close to a century of colonialism. Both the slave trade and colonialism as well as their enduring badly bifurcated legacies have benefitted and continue benefitting European states, and now a few others, immensely.³⁵

Walter Rodney documents how the slave trade developed Europe's technological capabilities to the point that, up to date, TNCs rarely outdo their home states in terms of economic power and even legal power.³⁶ It is true that capitalism, as a mode of economic production that concentrates wealth in the hands of a few, precipitated the development and strengthening of European domestic law in a way that was strong on the protection of the capitalistic interests of TNCs. On this, Rodney notes that, in its political aspects, capitalism triggered the birth of constitutions, parliaments, and freedom of the press in Europe.³⁷ However, even domestically, the law did not pay attention to the negative side effects that were resulting from TNCs' transactions outside of Europe. As a former French colonial minister, Jules Ferry explained, for instance, "the French Revolution was not fought on behalf of the blacks of Africa. Bourgeois liberty, equality, and fraternity were not for the colonial subjects. Africans – and Asians and Latin Americans – had to make do with bayonets, riot acts, and gunboats". We can also add to this that the atmosphere had to make do with unprecedented concentrations of GHG emissions in it.³⁸ We cannot separate damage to the atmospheric commons from human history.

The fact that international law aligned with European domestic law to allow TNCs to operate their transactions without paying attention to the side effects resulting from such transactions should not be surprising.³⁹ Thio Li-ann has

³⁴ Sipalla H (2022) Afronomicslaw, <https://www.afronomicslaw.org/index.php/category/analysis/twail-asserting-pride-global-south-epistemes-through-critiquing-silences> (last accessed 4 July 2022).

³⁵ Rodney (1982).

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

deconstructed international law as a field of study and found particularly striking the fact that European public law concepts of global governance were, and still are, in so many ways, the central tenets of international law.⁴⁰

The 1603–1604 history of international law demonstrates, I believe, how international law and even European domestic law did not have any interest in the regulation of their TNCs' negative side effects outside of Europe. It is this history that can help us understand how TNCs have accelerated climate change. Carmen Gonzalez notes:

The Anthropocene is the epoch under which 'humanity' – but more accurately, [TNCs] and those invested in and profiting from petrocapitalism and colonialism – have had such a large impact on the planet that radionuclides, coal, plutonium, plastic, concrete, genocide and other markers are now visible in the geologic strata. [The] early marker of the Anthropocene coincided with the importation of slave labour to extract gold, silver, and copper and later the sugar and cotton that fuelled the Industrial Revolution. Starting the Anthropocene in 1610 captures all impacts of the Industrial Revolution, which many scientists and historians consider a key part of the Anthropocene – because European annexing of the Americas was an essential factor in providing food energy and raw material imports that were critical elements allowing an Industrial Revolution to take place.⁴¹

We can spot TNCs' absolute freedom to cause the negative side effects being maintained across a spectrum of historical continuities. After the abolition of the slave trade, the Berlin Conference of 1884–1885, for example, which justified colonialism in Africa, further sanctioned the fact that European TNCs' negative side effects outside of Europe should not attract any obligations, both under international law and European domestic law.⁴² Then, after colonialism, the overt brutal side effects that TNCs' transactions had on present-day developing states were replaced by bilateral investment treaties (BITs). Developed states did pre-draft BITs for the then-newly-independent developing states, to preserve, among other things, their TNCs' absolute freedom to continue "transacting" without bearing the cost of the side effects.

Being pre-drafted, these BITs were very imbalanced. Up to date, most of them still are. They still grant TNCs rights to engage in transactions such as those over resources, property rights, capital movement, and market access without imposing upon them any direct responsibility for the negative side effects resulting from such transactions.⁴³ Under the regime of BITs, international law protects TNCs when developing states interfere with their transactions. However, neither international law nor domestic law in TNCs' home states has taken the task to tackle TNCs' GHG emissions from developing states.⁴⁴

⁴⁰ Anghie and Real (2020), p. 14.

⁴¹ Gonzalez (2021), p. 117.

⁴² Craven (2015), p. 38.

⁴³ Mbengue (2019), pp. 1–27.

⁴⁴ Fry (2007), p. 77.

2.2 *The Law of Negative Side Effects*

Overemphasising the sovereignty doctrine in climate change negotiations is what might have blinded developing states not to pay attention to how TNCs' transactions are imposing upon them more climate change responsibility that should have, in principle, been imposed upon developed states. In 1992, both developed and developing states gathered in Rio de Janeiro for the first United Nations Conference on Climate Change (UNFCCC), otherwise known as "The Earth Summit". How to address the threat of climate change for the first time in a multilateral agreement was on the agenda.⁴⁵ Aware of their developed counterparts' historical responsibility for climate change, which gave them the "present" capabilities to tackle it, developing states started pushing for the CBDR-RC principle—a trend that they have sustained in all climate change negotiations up to date.⁴⁶ Jason Hickel was able to quantify the historical responsibility for climate change that should be attached to individual states. He based his quantification on territorial emissions from 1850 to 1969 and consumption-based emissions from 1970 to 2015. His findings were that developed states were responsible for 92% of GHG emissions in excess of the planetary boundary, hence by far largely responsible for climate change.⁴⁷

On the face of it, it seems very fair that the CBDR-RC principle is effortlessly noticeable throughout the Paris Agreement. Under this principle, the Paris Agreement places more climate change mitigation, adaptability, and financing responsibilities on developed states.⁴⁸ But, the fact that developing states have been historically made unable to regulate TNCs is not part of the reason why the CBDR-RC principle was pushed for.⁴⁹ The primary reason was the sovereignty doctrine—that being equal to states that had already developed, developing states also had the right to develop.⁵⁰ This developmental focus of the CBDR-RC principle did not, therefore, encompass TNCs' transactions such as those over resources, property rights, capital movement, and market access. Yet those transactions are the ones that have made TNCs responsible for about a fifth of concentrations of GHG emissions in the atmosphere.

The approach to climate action that pervades the Paris Agreement reinforces the fact that the Paris Agreement cannot deal, at least directly, with TNCs' transactions. Indeed, before adopting the Paris Agreement, it was very difficult to arrive at a broad-based multilateral consensus on which approach to climate action to adopt. Historical records associate this difficulty with the top-down approach that formed

⁴⁵United Nations, <https://www.un.org/en/conferences/environment/rio1992> (last accessed 27 January 2022).

⁴⁶Stalley (2018), pp. 141–146.

⁴⁷Ibid, pp. 399–403.

⁴⁸Paris Agreement, Art. 4.4–7, Dec 12, 2015.

⁴⁹Bodansky et al. (2017).

⁵⁰Mickelson (2020), pp. 19–20.

the basis of climate change negotiations for more than two decades.⁵¹ The 1997 Kyoto Protocol had legally binding targets and timetables for emission reductions. However, it could only be applied to developed states because developing states found such targets and timetables as interfering with their sovereignty.⁵² In 2009, climate change negotiations again failed to secure a multilateral consensus because of following the same top-down approach at the United Nations Climate Change Conference of the Parties (COP) in Copenhagen. That was COP 15. There, Brazil, China, and India consistently frustrated substantive policy proposals made by developed states.⁵³ Other developing states such as Bolivia and Sudan opposed the adoption of the Copenhagen Accord into a binding international agreement. They saw the Accord as a small arrangement that great powers wanted to impose upon them.⁵⁴

Expectedly then, arriving at the Paris Agreement in 2015 necessitated a new approach to climate action. French diplomacy spearheaded a shift from “a top-down approach based on mandatory emissions commitments imposed [upon] states to a bottom-up [approach] of voluntary government pledges.”⁵⁵ Under this bottom-up approach, the Paris Agreement leaves developed and developing states free to accomplish their emissions reduction targets in a manner that suits them best within their territories. States are to do this by way of their NDCs (Nationally Determined Contributions), which they are to be setting for themselves.⁵⁶ The Paris Agreement is carefully crafted in a manner that does not allow it, by its letter and spirit, to impose mandatory commitments on both developed and developing states.⁵⁷ How can we impose TNDCs (*Trans*-Nationally Determined Contributions) upon them? It may be worth reiterating at this juncture of the contribution that, by TNDCs, I mean the most ambitious efforts that a TNC’s home state (usually a developed state) can commit to account for the GHG emissions that its TNC is responsible for in a host state (usually a developing state).

2.3 *Developing a Cure*

I hope to have now unravelled and diagnosed the underlying cause of the CBDR-RC contradiction. The cause lies in capitalism. In the process of unravelling and diagnosing the cause of this contradiction, I have identified four characteristics that, I believe, any adequate cure to the CBDR-RC contradiction will have to

⁵¹ Hale (2016), pp. 12–13.

⁵² Bäckstrand et al. (2015), pp. 561–563.

⁵³ Dimitrov (2010), p. 796.

⁵⁴ Ibid.

⁵⁵ Michaelowa et al. (2019), p. 12.

⁵⁶ Paris Agreement, art. 2. 1.a, Dec 12, 2015.

⁵⁷ Dupuy and Viñuales (2018), Chapter 5.

appreciate. As already noted, adequacy in the context of this contribution is a politically-charged term. It is determined by the politics that define how decisions are adopted and complied with within the climate change regime generally and particularly within the framework of the Paris Agreement. Issa Shivji has noted:

[We] must disabuse [ourselves] of the notion that law is neutral and apolitical. It is not. If politics is the concentrated form of economics, as Lenin said, I add, law is the concentrated form of politics.⁵⁸

An adequate cure to the CBDR-RC contradiction should therefore have, at least, the following four characteristics:

1. It should align dealing with TNCs' transactions with dealing with the negative side effects (concentrations of GHG emissions in the atmosphere) that result from such transactions.
2. For both developed and developing states to be more likely to adopt it, it should fit comfortably within the bottom-up approach to climate action that occasioned a broad-based multilateral adoption of the Paris Agreement.
3. Conscious of such an approach to climate action, it should not dictate how domestic law in TNCs' home states should impose the Paris Agreement's temperature goal upon their TNCs.
4. Although such an adequate cure may assume extraterritoriality, it should not place obligations on developing states in a manner that interferes with their sovereign right to develop as reflected in their push for the CBDR-RC principle.

With these characteristics in mind, I turn to discuss how TNDCs can appreciate these four points to form an adequate cure for the CBDR-RC contradiction. I discuss first how TNDCs can secure a broad-based multilateral adoption at a COP. Then, I discuss how they can be complied with in the climate change regime.

3 Adoption of TNDCs

Given that NDCs epitomise the Paris Agreement's bottom-up approach to climate action, we would therefore not be wrong in concluding that TNDCs are more likely to secure a broad-based multilateral adoption if we model them around NDCs. Being a framework agreement in the sense that it anticipates how further agreements can be made based on it, the Paris Agreement provides for an already-available framework within which TNDCs could be adopted. This is at a COP and a COP takes place every year. All the parties to the Paris Agreement are represented at a COP. There, they adopt decisions such as legal instruments, and institutional and administrative arrangements that are necessary to promote the effective implementation of the Paris Agreement.⁵⁹

⁵⁸ Shivji (2020), pp. 157–161.

⁵⁹ United Nations Climate Change, Conference of the Parties, <https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop> (last accessed 6 December 2022).

The purpose of the Paris Agreement is “to strengthen the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty.”⁶⁰ To meet this purpose, one of the distinguishing implementing tools of the Paris Agreement is of course NDCs. As is the case for NDCs, TNDCs too should be geared towards attaining the Paris Agreement’s temperature goal as enshrined in Article 2 of the Paris Agreement.⁶¹ This goal, which I have already alluded to, targets a global surface temperature that is below 2 °C—and encourages best efforts to pursue 1.5 °C—above pre-industrial levels.

Meeting this temperature goal through TNDCs could incidentally help meet the Paris Agreement’s adaptation goal and financial goal too. The adaptation goal aims to foster low greenhouse emission development and climate resilience.⁶² By adopting TNDCs, developed states may see themselves starting to coincidentally require TNCs for which they are home states to foster low greenhouse emission development and climate resilience in their operations in host states (usually developing states). Developed states carry the weight of the financial goal on their shoulders. In tandem with the CBDR-RC principle, these states are to commit to assisting developing states with an amount that goes beyond USD 100 trillion, every year.⁶³ While USD 100 trillion is not even enough for developing states to adapt to climate change, developed states have had difficulty fulfilling this financial goal, as COPs have so far revealed.⁶⁴ TNDCs could partly help address this difficulty. Given the rate at which TNCs are concentrating GHG emissions in the atmosphere, TNDCs could drastically reduce the amount of USD that developing states need in assistance for them to adapt to climate change. This is because developing states could be dealing with fewer climate change adverse effects that could come with less GHG emissions if developed states were to carry the burden of dealing with GHG emissions that emanate from their TNCs in developing countries.

In the spirit of the CBDR-RC principle and with respect to NDCs’ content, Article 4(2) of the Paris Agreement places an obligation upon developed states to have absolute emissions reduction targets in all sectors.⁶⁵ To account for TNDCs, an addition to this Article could read as “...in all sectors, including the emissions that their TNCs are responsible for in host states.” These absolute emissions reduction

⁶⁰Paris Agreement, art. 2, Dec 12, 2015.

⁶¹Paris Agreement, art. 2.1, Dec 12, 2015.

⁶²Paris Agreement, art. 2.1, Dec 12, 2015.

⁶³See for instance The Glasgow Climate Pact, art. 25, 2021.

⁶⁴Kaya and Stoetzer (2021) The 100 Billion Dollar Question: COP26 Glasgow and Climate Finance. Global Policy. <https://www.globalpolicyjournal.com/blog/16/11/2021/100-billion-dollar-question-cop26-glasgow-and-climate-finance> (last accessed 4 July 2022). See also McDonnell T et al., COP27: The \$100 billion question, Quartz 4 November 2022, <https://qz.com/emails/cop27/1849732899/cop27-the-100-billion-question> (last accessed 6 December 2022). See also Mia Amor Mottley, Barbados - Prime Minister Addresses United Nations General Debate, 76th Session, 21—27 September 2021, New York, https://www.youtube.com/watch?v=wz_IDnay3H8 (last accessed on 8 December 2022).

⁶⁵Paris Agreement, art. 4.2, Dec 12, 2015.

targets are not required of developing states. If anything, the Paris Agreement provides developing states with the leeway to decide which priority sectors to make the first subjects of their NDCs until they can progressively end up catering for all sectors.⁶⁶ Assuredly, leaving such leeway to powerful developing states such as China could collapse the relevance of TNDCs. China could argue, as a developing state, that reducing its TNCs' emissions is not yet its priority as it has directed its emissions reduction targets towards other sectors. This is why I made it clear from the outset of this contribution that the developing states that I have in mind are only those that are host—rather than home—states for TNCs, and that do not have political goodwill and/or technological capabilities to impose the Paris Agreement's temperature goal upon TNCs.

Another key element should be that, just like NDCs, successive TNDCs should present a progression beyond the previous ones.⁶⁷ In other words, as is the case for NDCs, TNDCs should also feature in the global stocktake every 5 years. This would mean that every 5 years, a TNC's home state should be increasing its efforts to account for the GHG emissions that its TNC is responsible for in host states. Succeeding TNDCs should therefore display more ambition than the previous ones. In addition, for efficiency purposes, the United Framework Convention on Climate Change Secretariat should establish a registry for TNDCs—the TNDC Registry—that should be recording each party's communicated TNDCs.⁶⁸

Letting a (developed) state provide for its TNDCs as part of its NDCs may run the risk of confusing the level of ambition that such a (developed) state is taking in its TNDCs and the one that it is taking in its NDCs. Also, there is a point in calling a problem by its name. Why do we not refer to climate justice, gender justice or racial justice simply as "justice"? Why do we not refer to women's rights, children's rights or peoples' rights simply as "human rights"? "Trans-Nationally" in "Trans-Nationally Determined Contributions (TNDCs)" is to communicate a message and to call for a specific action, which I believe NDCs are not best placed to communicate or call for. This is why we need a separate registry for TNDCs.

We can also make a fair prediction. If NDCs were to assume extraterritoriality (allowing one state to conduct certain activities in another state), they could have done so within the bottom-up approach to climate action that made arriving at a broad-based multilateral adoption of the Paris Agreement possible. Put differently, they could not have allowed a state to intervene in the sovereign territory of another state without the cooperation of the latter. With this prediction in mind and since TNDCs assume extraterritoriality, if a TNC's home state is to intervene in the sovereign territory of its host state in a manner that aligns with the bottom-up approach, such intervention should be premised upon cooperation.

⁶⁶Paris Agreement, art. 4.2, Dec 12, 2015.

⁶⁷Paris Agreement, art. 4.3 & 4.5 Dec 12, 2015.

⁶⁸United Nations Climate Change, Nationally Determined Contributions: NDC Registry, https://unfccc.int/NDCREG?gclid=Cj0KCQiA-JacBhC0ARIsAIxybyM1FQTujWpmXmJ1sZ8yxBU_IMmLLPboJbJzsuY25FpjXnBj0YWyiH8aAvtDEALw_wcB (last accessed 6 December 2022).