

Abhandlungen

Climate Protection before the European Court of Human Rights: The *KlimaSeniorinnen* and *Duarte Agostinho* Cases in Perspective

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|--|-----|
| Abstract | 458 |
| Keywords | 458 |
| I. The Two Topical Cases in Summary | 458 |
| II. Aim of the Present Analysis | 461 |
| III. Jurisdiction and Obligations of States with Regard to Transborder Effects | 462 |
| 1. Transborder Effects of Domestic Emissions (Scope 1 Emissions) | 462 |
| 2. Transborder Emissions Under the Control of a State (Scope 2 and 3 Emissions) | 464 |
| 3. Obligations and Jurisdiction | 465 |
| IV. Standing of Individuals and Associations | 466 |
| V. Applicable Rights: Scope and Overall Structure | 469 |
| 1. Scope | 469 |
| 2. Structure | 471 |
| VI. Interference | 473 |
| 1. Physical Causation | 474 |
| a) Directness | 475 |
| b) Individualisation | 476 |
| c) Intensity | 477 |
| d) Certainty | 477 |
| e) Time | 478 |
| 2. Attribution to States | 479 |
| a) Shared Responsibility | 479 |
| b) Determination of the Share in Responsibility | 480 |
| aa) Exceeding a Fair Share | 480 |
| bb) Harm Caused Concretely | 484 |
| cc) The Court's Approach | 485 |
| VII. Justification (or not) of the Interference – or the Content of Positive Obligations | 486 |
| 1. Modelled Reduction Pathways | 487 |
| 2. The Court's Approach | 489 |
| 3. Comment | 490 |
| VIII. The Court's Function | 491 |
| IX. Summary and Conclusion | 495 |

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Abstract

The European Court of Human Rights has largely developed its interpretation of human rights in environmental cases addressing actual harm from close-by sources and linear chains of causation. In the *KlimaSeniorinnen* and *Duarte Agostinho* cases, the multi-causal, distant and long-term causation of climate change and its effects inspired the Court to develop its case law further by drawing on the conception that regards the European Convention on Human Rights as a living instrument. The Court introduced two innovations – accepting a collective right to action and establishing an ambitious set of positive obligations on states – but it also rejected two other claims, namely opening up the standing of individuals to the generalised concerns of younger or older generations and extending jurisdiction to the causation of transborder effects of greenhouse gas (GHG) emissions. This article analyses these doctrinal moves by placing them within the context of a wider range of doctrinal options. The focus is on the transnational reach of human rights, the *locus standi* of individuals and associations, the interference with rights and the positive obligations to take mitigating measures. Particular attention is paid to how it is possible to determine a state's share in causing and reducing emissions. Besides these doctrinal issues, the article touches on general aspects of the Court's function as were raised in a dissenting opinion.

Keywords

climate change – European Convention on Human Rights – interference with human rights – positive obligation – budget approach – fair shares – modelled reduction pathways

I. The Two Topical Cases in Summary

In April 2024 the European Court of Human Rights ('the Court') handed down impressive judgments in two cases that pit the human right to health and wellbeing against climate change concerns. The first was brought by an association, the Verein KlimaSeniorinnen Schweiz, along with five elderly women, against Switzerland,¹ the second by six young Portuguese nationals

¹ ECtHR (Grand Chamber), *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland*, judgment of 9 April 2024, no. 53600/20.

against Portugal and 32 other European states.^{2 3} The main issues raised in these cases⁴ were the right to judicial review by national courts (Art. 6), the right to judicial review by the Court (Art. 34), the right to life (Art. 2) and the right to private life (Art. 8).⁵

In the *KlimaSeniorinnen* case, the Court sticks to its current narrow understanding of *locus standi* as requiring applicants to be personally and seriously affected, which it finds the *Seniorinnen* had not proven. However, the Court takes an innovative step by accepting standing of the applicant association. With regard to the substance of the case, the Court finds Art. 8 to encompass the right to protection from the serious adverse effects of climate change on human health and the quality of life. After examining the relevant Swiss climate legislation, the Court decided, with a majority of 16 to one, that the measures taken were insufficient.

In the *Duarte Agostinho* case, the crucial issue was whether the transborder effects of emissions produced in the respondent foreign states are within the latter's jurisdiction. The Court denies this, refusing to accept another case of exceptional extraterritorial jurisdiction. The applicants were thus only able to file a complaint against their home state of Portugal, but were found not to have exhausted all available domestic remedies. Because it already regarded the case inadmissible for this reason, the Court did not have to reach a conclusion on the applicants' *locus standi*. However, it did express doubts as to whether the applicants had sufficiently substantiated their victim status.

In both cases, the structure of the Court's reasoning basically follows long-standing practice. It comprises four parts: procedural issues; the facts (circumstances of the case, climate change); the relevant legal framework and practice (domestic and international, comparative); and the law (the reasons in the judgment and final decision). When it comes to the law, the Court's reasoning in the *KlimaSeniorinnen* case is highly differentiated, but in some

² ECtHR (Grand Chamber), *Duarte Agostinho and Others v. Portugal and 32 Others*, judgment of 9 April 2024, no. 39371/20. The respondent states included the 27 EU Member States plus the UK, Norway, Turkey and Russia. That part of the application that related to Ukraine was struck out on the applicants' motion. Russia remained because the case was already pending on the date Russia left the Council of Europe and the European Convention on Human Rights (Art. 58 (2) of the Convention).

³ A decision was also given on a third case, ECtHR (Grand Chamber), *Carême v. France*, judgment of 9 April 2024, no. 7189/21, which was joined with the other two cases, but it was dismissed for lack of standing.

⁴ The application and some intervenors' observations are accessible in the Climate Change Litigation Database kept by the Sabin Center for Climate Change Law, <<http://climatecasechart.com/search-non-us/>>, last access 16 July 2024.

⁵ Where articles are cited without any indication as to the source, they refer to the European Convention on Human Rights (ECHR).

respects it is not easy to follow. It is general judicial practice that the legal part comprises, first, admissibility issues, including identification of legal requirements and their application to the case, and, second, the substance of the complaint, including the identification and application of the scope of rights, interference with them and possible justification of interference.⁶ In the *KlimaSeniorinnen* case, the Court changed this order somewhat, apparently with the aim of emphasising the particularities of the issue of climate change.

The Court's decision in *KlimaSeniorinnen* is structured as follows: 'Preliminary issues' relating to what is called the 'scope of the complaint' (with a discussion of 'embedded emissions' generated abroad and attributed to Switzerland, §§ 275-283); 'Jurisdiction' (§§ 284-288); 'Introductory remarks' on the relationships between Arts. 2, 8, 13 (§§ 291-295); 'The Court's assessment' containing 'Preliminary points' on the role of the Court in climate policy and 'General considerations relating to climate-change cases' where questions of causation and a state's proportion of responsibility are elaborated on (§§ 410-456); 'Admissibility' (requirements of standing of individual applicants and an association representing them (§§ 458-503); content of the applicable human rights (§§ 507-520); application of the requirements of standing to the applicants (§§ 521-537)); and 'Merits' ('general principles' on margins of appreciation by states concerning positive obligations (§§ 538-540); the content of the positive obligation under Art. 8 (§§ 541-554); the application of this content to the case (§§ 555-574)).⁷

Within this structure, the content of the ultimately applicable right – Art. 8 – is elaborated both at the admissibility and the merits stage, reflecting the fact that victim status not only hinges on the factual situation but also on the content of the allegedly infringed right. As mentioned above, the content of this right is construed as a positive obligation to protect rightholders. This in turn requires striking a fair balance between the protection of the individual's fundamental rights and the demands of the general interests of the community (§§ 440, 539, 628). The Court speaks of

'[...] the distinction that must be made between, on the one hand, the rights protected under the Convention and, on the other hand, the weight of environmental concerns in the assessment of legitimate aims and the weighing-up of rights and interests in the context of the application of the Convention. (§ 447)'

⁶ Thilo Marauhn and Daniel Mengeler, 'Grundrechtseingriff und -schränken' in: Oliver Dörr, Rainer Grote and Thilo Marauhn (eds), *EMRK/GG Konkordanzkommentar* (3rd edn, Mohr Siebeck 2022), paras 1-22.

⁷ Those parts referring to Art. 6 have been left out. See, however, footnote 25 below.

I read this to suggest that the questions concerning how an individual is affected and how weighty the competing demands of the community are should be treated separately. This would approximate the structure of applying rights as positive obligations to that of applying rights as negative obligations.⁸ In other words, interference with the rights of the individual is first examined and then the possible justification of the interference.⁹ Indeed, the Court's construction of the content of the applicable rights (§§ 410-456 and §§ 507-520) can be read as focussing on the interference with the individual's rights, whereas the construction of measures to be taken (§§ 538-540) appears to examine the possible justification of that interference.

The scope of human rights is a further aspect that can be treated separately to undertake a preliminary clarification of the applicable rights. The Court makes use of the concept of the scope of a right when examining environmental protection as an object of a general right (which it rejects), as part of the protective content of rights, and as legitimate interest limiting rights (§§ 445-451), while treating the relationship between Arts. 2 and 8 under the heading 'Applicability of the relevant Convention rights', although this could as well be classed as an issue of scope (§§ 507-520).

II. Aim of the Present Analysis

My analysis aims to explain and evaluate the core doctrinal concepts the Court discussed in the two judgments at hand, both in terms of developing them further and retaining settled case law. This will be done by locating these concepts in a wider landscape of options that the Court could have adopted or has rejected. This approach may serve to enhance an understanding of the judgments and pave the way for more theoretical assessments.¹⁰

The focus will be on the challenges climate change poses in relation to extraterritorial jurisdiction, the *locus standi* of individuals and associations, and the content of the right to respect for private life and for one's home.

Drawing on the Court's reasoning though using a somewhat more transparent structure, I will discuss the chosen topics in the following order:

⁸ See, regarding this structure in relation to negative obligations, Heike Krieger, 'Funktionen von Grund- und Menschenrechten' in: Oliver Dörr, Rainer Grote and Thilo Marauhn (eds), *EMRK/GG Konkordanzkommentar* (3rd edn, Mohr Siebeck 2022), para. 46.

⁹ This was also suggested by Judge Wildhaber in his concurring opinion in ECtHR, *Stjerna v. Finland*, judgment of 25 November 1995, no. 18131/91.

¹⁰ See, regarding those reflections, section VIII. below.

jurisdiction and obligations (III.); applicants' legal standing (IV.); scope and overall structure of the applicable rights (V.); interference (VI.); and possible justification of the interference (VII.). The last section addresses the Court's understanding of its function in response to the partly dissenting opinion submitted by Judge Eicke in the *KlimaSeniorinnen* case (VIII.). The article closes with a summary of findings and some conclusions (IX.).

III. Jurisdiction and Obligations of States with Regard to Transborder Effects

One important aspect addressed in climate cases is the transboundary effect of domestic greenhouse gas emissions (referred to as 'scope 1 emissions') and of emissions that occur abroad but are controlled by a state, including 'scope 2 emissions', which are produced through the generation of imported energy, and 'scope 3 emissions', which are associated with the production of purchased products, the use of sold products and emissions under the control of transnational corporations. These terms were developed in relation to the management of industrial corporations¹¹ but have also been applied to structure the obligations of states.¹²

From the legal point of view, transboundary emissions raise the question of the extraterritorial reach of human rights protection, which formed part of the submissions in both the *KlimaSeniorinnen* and *Duarte Agostinho* case.

1. Transborder Effects of Domestic Emissions (Scope 1 Emissions)

In accordance with Art. 1, the rights under the European Convention on Human Rights ('the Convention') can only be invoked by persons affected within a state's jurisdiction. The Court conflates jurisdiction with territoriality, but accepts extraterritorial jurisdiction in exceptional cases. Apart from

¹¹ See World Resources Institute and World Business Council for Sustainable Development, The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard, 2004, Chapter 4 <<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>>, last access 16 July 2024; See Anne Kling, *Klimaverträglichkeitsprüfung vor Gericht* (Nomos 2023), 59–64.

¹² See Kling (n. 11).

the exceptions *ratione loci* and *ratione personae*, it has accepted a third exception for ‘special features’ that is applied on a case-by-case basis.¹³ The applicants in the *Duarte Agostinho* case¹⁴ suggested that harmful activities originating in and controlled by a state that have serious, lasting and foreseeable transboundary effects should be acknowledged as such a ‘special feature’. The Court rejected this, reiterating its opinion that a state’s decision that has an impact on a person abroad cannot in itself establish jurisdiction over the person (Duarte, § 184¹⁵). Otherwise, the Court held, ‘a critical lack of foreseeability of the Convention’s reach’ would arise, because ‘almost any person adversely affected by climate change’ could seek legal protection (Duarte, § 206).

Taking a critical perspective, it is doubtful whether equating territory with jurisdiction is still a good reason for limiting the reach of human rights. Given the increasing intensity of interactions between states, the congruence between the power of intervention (*Eingriffsmacht*) and legal obligation (*Rechtsbindung*)¹⁶ appears to be the preferable point of departure. Such a principle would be in line with recent developments as regards human rights in fora other than the Court, in particular the Inter-American Court of Human Rights¹⁷ and the Committee on the Rights of the Child.¹⁸ These two bodies distinguish between the territoriality and the jurisdiction of a state, defining jurisdiction as the state’s control over causal processes that originate in that state and cause extraterritorial harm.¹⁹

Of course, it would be necessary to introduce criteria that prevent the limitless extension of human rights guarantees and of the related access to judicial review. These criteria could be substantial – such as the catastrophic nature of harm and the inescapability of damage to the persons concerned – as well as procedural – such as strict requirements of standing, the admissi-

¹³ See ECtHR (Grand Chamber), *Güzelyurtlu and Others v. Cyprus and Turkey*, judgment of 29 January, no. 36925/07, paras 190 et seq.; ECtHR (Grand Chamber), *Hanan v. Germany*, judgment of 16 February 2021, no. 4871/16, paras 136 et seq.

¹⁴ Annex to the application, paras 18–25, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20200902_3937120_complaint.pdf>, last access 16 July 2024.

¹⁵ This reference and ones like it refer to the judgment in the *Duarte Agostinho* case (n. 2).

¹⁶ Thomas Giegerich, ‘Extraterritoriale Wirkung von Grund- und Menschenrechten’, EuGRZ 50 (2023), 17–39 (31).

¹⁷ IACtHR, *The Environment and Human Rights*, advisory opinion of 15 November 2017 requested by Colombia, case no. OC-23/17.

¹⁸ Committee on the Rights of the Child, *Chiara Sacchi et al.*, CRC/C/GC/14, no. 104/2019.

¹⁹ IACtHR, *Environment and Human Rights* (n. 17), VI and VII; Committee on the Rights of the Child, *Sacchi* (n. 18), paras 10.1–10.14.

bility of a collective action, sample and model procedures, summary judgments and short deadlines.

2. Transborder Emissions Under the Control of a State (Scope 2 and 3 Emissions)

In the *Duarte Agostinho* case, the applicants alleged that the defendant states were responsible not only for the external effects of domestic emissions (scope 1 emissions) but also for the external emissions controlled by the defendant states on account of importing products produced using greenhouse gas emissions and exporting products or services that cause emissions abroad (scope 2 and 3 emissions).²⁰ Once again, this raised the question of whether and, if so, how such an obligation can be grounded in fundamental rights. The Court did not specifically discuss this issue, but it can be said that its denial of jurisdiction in relation to scope 1 emissions also applies to scope 2 and 3 emissions.

The *KlimaSeniorinnen* case provides another example of state controlled external emissions that was also not touched upon by the Court. The management and financing, by Swiss companies and banks, of emissions-intensive activities abroad is a core business model that permeates and supports the respondent state.²¹ Transnational emissions caused by projects financed by those enterprises are enabled by the relevant authorisations and supervision by the state. The state can thus be regarded as taking responsibility for the activities abroad, including external emissions.

The Court refused to accept this argument in another case concerning German and Austrian companies that participated in a consortium that was implementing a Turkish hydroelectric project that affected the archaeological site of Hasankeyf. According to the Court, the German and Turkish governments could not be held responsible because the Turkish authorities had exclusive jurisdiction over the project.²² One might think this position somewhat formalistic because the participation of external partners is often an essential precondition for a project taking place.

²⁰ *Duarte Agostinho and Others*, Application Form, paras 9-13, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20200902_3937120_complaint.pdf>, last access 16 July 2024.

²¹ Verein KlimaSeniorinnen, Observations on the Facts, Admissibility and the Merits, paras 3-5, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2022/20221202_Application-no.-5360020_petition.pdf>, last access 16 July 2024.

²² ECtHR, *Ahunbay and Others v. Turkey, Austria and Germany*, judgment of 29 January 2021, application no. 6080/06, para. 94.

3. Obligations and Jurisdiction

In the *KlimaSeniorinnen* case, the Court draws an important distinction between the content of rights for which a state is responsible, and the jurisdiction within which the right can be invoked in court proceedings. Even if an applicant is denied standing because the foreign state has no (normal or exceptional) jurisdiction, the Court nevertheless regards the state as being answerable for external emissions on account of the manufacture of products that are imported into it, known as ‘embedded emissions’. However, such obligations can only refer to effects on persons living in the same state (§ 287).²³

While the Court has imported products in mind in this respect, it has not stated any opinion on transborder emissions by exported products or even by industrial activities directed by Swiss companies. The Norwegian Supreme Court took a step in the direction of including exported products in a case concerning authorisations to exploit oil resources in the Barents Sea: The Supreme Court held that the right to a healthy environment, which is guaranteed under Art. 112 Norwegian Constitution, extends to activities abroad over which Norwegian authorities have direct influence or control, including emissions from the combustion of exported Norwegian oil. However, the Supreme Court was only prepared to accept obligations concerning effects on the domestic territory of external emissions.²⁴ Nevertheless, it did accept that a state has obligations concerning emissions caused abroad. The Oslo District Court relied on this concept in a follow-up case concerning the exploration and exploitation of petroleum fields by requiring that the environmental impact assessment has to include emissions from the combustion of exported oil.²⁵

Further, the Rechtbank Den Haag interpreted the Royal Dutch Shell’s duty of care with regard to emissions from gasoline combustion abroad as being based on the fundamental rights to human life and health (Arts 2 and 8).²⁶

²³ The ‘§’ symbol when used throughout the article without further reference refers to the judgment in the *KlimaSeniorinnen* case.

²⁴ Supreme Court Judgment of 22 December 2020, case no. HR-2020-2472-P, unofficial English translation, para. 149. By contrast, the Appeal Court, while also accepting responsibility for external emissions, extended this to external effects, *ibid.* para. 13.

²⁵ Oslo District Court, *Greenpeace Nordic Association & Natur og Ungdom v. Government of Norway*, judgment of 18 January 2024, case no. 23-099330TVI-TOSL/05, para. 3.5.3.

²⁶ Rechtbank Den Haag, *Milieudefensie et al. vs Royal Dutch Shell PLC*, judgment of 22 May 2021, ECLI:NL:RBDHA:2021:5339 (English version).

IV. Standing of Individuals and Associations

In the *KlimaSeniorinnen* case the applicants claimed both a violation of their substantive right to health (Arts. 2 and 8) and of their procedural right of access to courts (Art. 6 (1)). My focus here is on the first claim, while the second will only be mentioned in passing.

The claim of a breach of Art. 6 (1) was based on the allegation that the applicants were denied access to their domestic courts. The applicants' standing (Art. 34) was easily argued to exist because of the very fact that their case was dismissed by domestic courts (§ 590). The substance of the claim – whether the Swiss courts violated Art. 6 (1) – was a much more intricate issue and was treated by the Court at some length (§§ 577-640).²⁷

The claim of a breach of Arts. 2 and 8 also first had to pass the hurdle of admissibility. The Court did not discuss the exhaustion of domestic remedies (Art. 35), although it could be argued that, after having to admit a collective action, the domestic courts should first decide on the substance.²⁸ Instead, the Court concentrates on *locus standi*. In accordance with Art. 34, an applicant must 'claim' to be the 'victim' of the violation of a right by a state. The Court sets out principles concerning victim status (§§ 460-505), referring to the substantive content of the applicable right (§§ 506-537).

The Court rejects an *actio popularis* in line with its *jurisprudence constante* (§ 460). It then reiterates a typology of victims based on its case law, including 'direct' victim and 'indirect' victim (such as a direct victim's kin) and a

²⁷ Just a short comment on the issue: Art. 6 (1) of the Convention guarantees a fair procedure if a civil right is disputed in national proceedings and the outcome of the dispute may affect the enjoyment of that right. The Court treats individual applicants and their association differently. It finds that the outcome of domestic court proceedings would not have a noticeable impact on the enjoyment of the individuals' human rights (§ 624), which was consequential after the Court's denial of victim status in the substantive sense (on this, see further below). With regard to the collective action the Court finds that the applicants' association met the criteria required for such action (§§ 618-621), so that the association is recognised as having victim status and thus *locus standi*. In other words, the allegation that Art. 6 (1) of the Convention is violated on account of the rejection of application is admissible. On the merits, the Court reiterates that Art. 6 (1) of the Convention in principle grants access to courts but that states have discretion to limit access to courts, in particular in order to maintain the separation of powers (§ 631). But proportionality requires that the seriousness of climate change effects and urgency of legal protection is factored in, which the Court found was not sufficiently done by the Swiss authorities (§§ 535-538). It should be noted in addition that the Court rules out the applicability of Art. 6 (1) of the Convention to actions that concern legislative acts, except if a legal order in principle does provide for such an action (§§ 609, 615, 627, 631).

²⁸ The respondent government argued that the Court would then act as a first instance court (§ 339) while the applicants submitted that initiating national proceedings would cost time that they lack given the urgency of the climate crisis.

‘potential’ victim who is either affected by general legislation without any intervening executive measure or will be affected at some future point in time (§ 471).

The problem with applying these standards to climate change is the wide range of effects, including situations of present harm from present measures up to future harm from present or future measures (§ 485). The Court insists that applicants must show that they are personally and directly affected. In addition, the Court requires there to be a pressing need for individual protection that cannot be provided otherwise, such as by adaptation measures. This is then summarised as follows:

‘(a) the applicant must be subject to a high intensity of exposure to the adverse effects of climate change, that is, the level and severity of (the risk of) adverse consequences of governmental action or inaction affecting the applicant must be significant; and

(b) there must be a pressing need to ensure the applicant’s individual protection, owing to the absence or inadequacy of any reasonable measures to reduce harm.’ (§ 487)

This means that, as regards *locus standi*, the Court is more restrictive than the German Federal Constitutional Court,²⁹ but is at the same time less restrictive than the European Court of Justice, which applies an excessively restrictive requirement of uniqueness of concern.³⁰

Applying its concept of standing based on victim-status criteria to the individual applicants, the Court finds that they do not fulfil these criteria (§ 535).

As a corollary, the Court offers *locus standi* to associations. The starting point here is the distinction between victim status and representation. While representation normally requires there to be a direct victim who is represented by another individual on the basis of a written authority,³¹ the Court has previously, in exceptional cases, accepted that an association may represent a direct victim who is unable to provide such authority (e.g. if the victim is dead).³² In the *Gorraiz Lizarraga* case it had already acknowledged a further exception when an association of citizens affected by the construction

²⁹ Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30, paras 108–110.

³⁰ ECJ, *Carvalho and Others*, case no. C-565/19. For a critique, see Gerd Winter, ‘Plau-mann Withering. Standing Before the EU General Court Underway from Distinctive to Substantial Concern’, *European Journal of Legal Studies* 15 (2023), 85–123.

³¹ Rules 36 para. 1 and 45 para. 3 of the Court.

³² ECtHR, *Centre for Legal Resources on Behalf of Valentin Câmpeanu v. Romania*, judgment of 17 July 2014, application no. 47848/08, paras 102–114.

of a dam acted on behalf of the people affected.³³ This was based on a strategic consideration, i. e. that individual interests could more effectively be defended if the affected individuals joined forces in an association. In the *KlimaSeniorinnen* case, the Court, though also referring to the strategic aspect, adds a substantive point, that is the collective nature of the causes and effects of climate change and mitigation measures taken:

‘[...] in modern-day societies, when citizens are confronted with particularly complex administrative decisions, recourse to collective bodies such as associations is one of the accessible means, sometimes the only means, available to them whereby they can defend their particular interests effectively. This is especially true in the context of climate change, which is a global and complex phenomenon. It has multiple causes and its adverse effects are not the concern of any one particular individual, or group of individuals, but are rather “a common concern of humankind” (see the Preamble to the UNFCCC). Moreover, in this context where intergenerational burden-sharing assumes particular importance [...], collective action through associations or other interest groups may be one of the only means through which the voice of those at a distinct representational disadvantage can be heard and through which they can seek to influence the relevant decision-making processes.’ (§ 489)

In doctrinal terms, this means that Art. 8 is extended to embrace collective interests in human health and welfare so that a link between a violation of this right and the (collective of) victims represented by the association can be established.

The Court seeks support for its move in the pertinent law and court practice of many states and the European Union (EU) (§§ 492-494). It also refers to Art. 9 (3) of the Aarhus Convention (§ 491), which, however, needs to be qualified because Art. 9 (3) is only applicable to collective actions that address subordinate legal acts. Acts of parliament are outside of the scope of Art. 9 (3) of the Aarhus Convention because the provision only refers to the activities or omissions of a ‘public authority’ that, according to Art. 1 (2) of the Aarhus Convention, is defined as not including institutions acting in a legislative capacity. The reference can therefore only be related to the respondent’s executive action.

In any case, not every association can file an action. Rather, the Court requires associations to meet three conditions that mirror similar requirements that many legal systems have established for collective actions. The association must be

³³ ECtHR, *Gorraiz Lizarraga and Others v. Spain*, judgment of 10 November 2004, application no. 62543/00, para. 38.

‘(a) lawfully established in the jurisdiction concerned or have standing to act there; (b) able to demonstrate that it pursues a dedicated purpose in accordance with its statutory objectives in the defence of the human rights of its members or other affected individuals within the jurisdiction concerned, whether limited to or including collective action for the protection of those rights against the threats arising from climate change; and (c) able to demonstrate that it can be regarded as genuinely qualified and representative to act on behalf of members or other affected individuals within the jurisdiction who are subject to specific threats or adverse effects of climate change on their lives, health or well-being as protected under the Convention.’ (§ 502)

It is worth noting that the wording in (c) includes that the association may also represent the interests of non-members. On the other hand, some of the wording used when applying for victim status only seems to refer to the members of an association (§ 523). I suggest, though, that this is due to the specifics of the actual complaint because the *Verein KlimaSeniorinnen Schweiz* only claimed to be representing the interests of its members. Membership should therefore not be understood as a principled requirement.³⁴

Applying its concept of collective action to the *Verein KlimaSeniorinnen Schweiz*, the Court finds that the association meets the requirements and that the interests represented fall within the scope of Art. 8. (§§ 524-526)

V. Applicable Rights: Scope and Overall Structure

1. Scope

The fundamental right most often applied by the Court in general environmental law cases is Art. 8 of the Convention, which it has for a long time actively developed to include the protection of human health and the enjoyment of the amenities of one’s home. In the climate context this means that applicants may, for example, claim intolerable living conditions in their homes and surroundings due to extreme weather conditions. As will be further explained below, the Court does adapt Art. 8 to climate change by interpreting it as encompassing

‘[...] a right for individuals to effective protection by the State authorities from serious adverse effects of climate change on their life, health, well-being and quality of life.’ (§ 519)

³⁴ See VI. 1. d) regarding the question of the severity of interests of the represented individuals.

The right to life (Art. 2) has likewise been invoked in environmental cases. It has so far been interpreted as applying to risks to life rather than to human health in general. As regards climate issues, the Court finds Art. 2 to be applicable to those persons whose risk of mortal diseases rises due to their individual constitution (e.g. children, older persons) (§ 510). The Court nevertheless sticks to its rather narrow concept of protective scope, requiring

‘[...] a serious, genuine and sufficiently ascertainable threat to life, containing an element of material and temporal proximity of the threat to the harm complained of by the applicant.’ (§ 513)

However, the Court does not examine the related merits, and it states that Art. 8 has a similar content but a wider scope of protection (§ 536).

While the adverse effects of climate change have an impact on the enjoyment of the right to property (Art. 1 of the 1st Protocol to the Convention), it was invoked neither in the *KlimaSeniorinnen* nor in the *Duarte Agostinho* case. It is worth noting that farmers affected by drought or flooding have to my knowledge not yet brought cases before the Court although their property rights may qualify as being violated. The Court has only rarely been asked to rule on environmental cases that raise property issues. At least in the *Budayeva* case the risk of mudslides was considered under both Art. 2 and Art. 1 of the 1st Protocol to the Convention.³⁵

The Convention does not provide for a specific children’s right to well-being in the same way as Art. 24 of the EU Charter of Fundamental Rights does. But children are, of course, included in the protective scope of all human rights that are relevant to them. Their particular climate interests – their endangered future living conditions – should be taken into account in any interpretation that extends the protective scope of relevant human rights into the future.³⁶ However, the Court refused to make this step in the *Duarte Agostinho* case.³⁷ In the future, it is conceivable that a collective action could be brought by children based on the Court’s reasoning in the *Klima-Seniorinnen* case.³⁸

³⁵ ECtHR, *Budayeva and Others v. Russia*, application no. 15339/02 etc.

³⁶ On the temporal dimension of human rights, see VI. 1. e).

³⁷ See I. above.

³⁸ See IV. above.

2. Structure

In line with established case-law the Court stresses that no article of the Convention provides a general right to a healthy environment as such (§ 445).

As stated in the above, the Court construes Art. 8 of the Convention as encompassing a right to be protected by state authorities, in other words as a subjectivised positive obligation to protect. This corresponds to the Court's general practice in traditional environmental cases. In applying the construct to climate change the Court was able to draw on similar steps taken by national courts such as the Dutch Hoge Raad in the *Urgenda* case,³⁹ the Brussels Appeal Court in the *Klimaatzaak* case⁴⁰ and the German Federal Constitutional Court in the *Neubauer* case.⁴¹

As an alternative to positive obligations, one could conceptualise states' obligations in relation to climate change as negative obligations. Two variants were conceivable. The Court took note of them (§§ 256, 408) but did not discuss them any further.

As regards the first of these two variants, in the *Neubauer* case⁴² the German Federal Constitutional Court held that if emissions are not sufficiently reduced now, living conditions will emerge in the future that will force the state to drastically restrict energy use and many other activities, thereby – and justifiably – encroaching on virtually all fundamental freedoms. The possibility of such severe future restrictions has an 'advance effect' (*Vorwirkung*), obliging the state to reduce emissions now in order to prevent what the Federal Constitutional Court calls an 'emergency stop' (*Vollbremsung*) later on.⁴³

The second concept of negative obligation builds on the fact that states have moved from protecting victims of 'horizontal' emissions to actively allowing emissions to occur, most prominently when they allocate emission

³⁹ Hoge Raad, *Urgenda Foundation v. State of the Netherlands*, judgment of 13 January 2020, case no. 19/00135 (Engels), ECLI:NL:HR:2019:2007.

⁴⁰ Cour d'Appel Bruxelles, *VWZ Klimaatzaak v. Belgium and Others*, judgment of 30 November 2023, case no. 2021/AR/1589, 2022/AR/737, 2022/AR/891; see Nicolas de Sadeleer, 'Belgian Public Authorities held Liable for Flawed Climate Policy: Klimaatzaak case', *Environmental Law Network International Review* 2024, 4-11, doi.org/10.46850/elni.2024.002.

⁴¹ Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30.

⁴² Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30, paras 182 et seq.

⁴³ Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30, para. 183.

rights to emitters.⁴⁴ Also, the issuance, by states, of authorisations for emitting sources such as fossil fuel exploitation and energy-intensive industries can be interpreted as enabling emissions.⁴⁵ Although the actual emissions and their effects are ultimately ‘horizontal’, the state indirectly causes them and can therefore be held responsible for their effects.

Choosing either of these two concepts may have implications for the depth of judicial review. The German Federal Constitutional Court holds that negative obligations invite more scrutiny than positive obligations because, in the first case, a specific measure that has already been taken is under review and the judge can clearly approve of or annul it, whereas in the second case a multitude of options are still available from which the judge should not be permitted to make a choice given the principle of the separation of powers.⁴⁶ By contrast, the Court appears not to see much difference between negative and positive obligations.⁴⁷ For instance, it has practised scrutiny when the harm caused was particularly serious⁴⁸ and when the contracting states had already found converging solutions.⁴⁹ This line is retained and even reinforced by the Court in the *KlimaSeniorinnen* case, considering the severity of climate change effects (§ 542).

⁴⁴ This concept was submitted as a third-party intervention by CAN-E to the Court in the *KlimaSeniorinnen* and *Duarte Agostinho* cases, available at <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2022/20221205_Application-no.-5360020_na.pdf>, last access 16 July 2024 and <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2021/20210506_3937120_na-3.pdf>, last access 16 July 2024, respectively. As also suggested by the intervenors, this construct would have implications for extraterritorial jurisdiction if Article 1 of the Convention was interpreted to only apply to positive obligations while the transnational reach of negative obligation had to be derived from interpreting the individual applicable human right. This had been suggested by Judge Serghides in his partly concurring opinion in ECtHR (Grand Chamber), *Georgia v. Russia II*, application no. 38263/08. See further Corina Heri, ‘Climate Change’s Bankovic Moment? Understanding the European Court of Human Rights’ Duarte Agostinho Decision’, *E. L. Rev.* 49 (2024), 408–419.

⁴⁵ Similarly, Montana First Judicial District Court, *Lews and Clark County in Rikki Held et al. v. State of Montana et al.*, judgment of 14 August 2023, case no. CDV-2020-307, paras 261, 268; the court states that by issuing permits that result in greenhouse gas emissions the state exacerbates climate change and causes harms to Montana’s environment and its citizens, thereby violating their constitutional rights.

⁴⁶ Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30, para. 152.

⁴⁷ See, for instance, ECtHR, *Lopez Ostra v. Spain*, judgment of 9 December 1994, application no. 16798/90, para. 51; ECtHR (Grand Chamber), *Hatton and Others v. the United Kingdom*, judgment of 8 July 2003, application no. 36022/97, para. 98.

⁴⁸ ECtHR (Grand Chamber), *Hatton* (n. 47), para. 102; see also Heike Krieger, ‘Positive Verpflichtungen unter der EMRK: Unentbehrliches Element einer gemeineuropäischen Grundrechtsdogmatik, leeres Versprechen oder Grenze der Justiziabilität?’, *HJIL* 74 (2014), 187–213 (211).

⁴⁹ ECtHR, *Goodwin v. the United Kingdom*, judgment of 11 July 2002, application no. 28957/98, para. 74.

In more strategic terms, I nevertheless believe that the concept of negative obligation is better suited to winning public support for court decisions. The general public seems to be more sympathetic towards court decisions that protect their freedoms against state interference than if the state is directed to act – even though both approaches may, in the end, lead to the same measures being taken. This, at least, is a lesson learned from the decision in the *Neubauer* case that was immediately and widely applauded by the government and public and especially by those having a vested interest.⁵⁰

VI. Interference

As explained in section I., the distinction between interference and justification of that interference can also be applied to positive obligations. Identifying the harm caused and attributing this to the state can be qualified as an issue of interference, and weighing this up against overriding interests as an issue of justification.

The Court's long-standing practice is to accept a broad notion of interference that covers both legal prescription and adverse factual conduct,⁵¹ such as noise caused by an airport.⁵²

If the challenged activity is 'horizontally' caused by private actors, as with greenhouse gas emissions in our case, the notion of interference must address two issues, namely whether the horizontal effect meets certain criteria of severity and whether the harm caused can be attributed to a state authority. These two stages of inquiry can also be found in the Court's reasoning in the *KlimaSeniorinnen* case. The chain of causation described includes, first, the impact of emissions on the enjoyment of human rights as (horizontal) facts and, second, the related acts and omissions by state authorities as attributed to the state (§§ 424–444).⁵³ I will treat each of these aspects in turn.

⁵⁰ Bundesregierung, 'Bundes-Klimaschutzgesetz und Beschluss des Bundesverfassungsgerichts vom 29. April 2021', BT-Drs. 19/32154, 20 August 2021, <<https://dserver.bundestag.de/btd/19/321/1932154.pdf>>, last access 16 July 2024; Bund Deutscher Industrie, 'Klimapfade 2.0. Ein Wirtschaftsprogramm für die Zukunft', October 2021, <<https://bdi.eu/publikation/news/klimapfade-2-0-ein-wirtschaftsprogramm-fuer-klima-und-zukunft/>>, last access 16 July 2024, 10.

⁵¹ Thilo Marauhn and Daniel Mengeler, 'Kapitel 7: Grundrechtseingriff und Schranken' in: Oliver Dörr, Rainer Grote and Thilo Marauhn (eds), *EMRK/GG Konkordanzkommentar* (3rd edn, Mohr Siebeck 2022), paras 13–14.

⁵² See, e.g., ECtHR, *Flamenbaum and Others v. France*, judgment of 13. December 2012, application no. 3674/04 etc.

⁵³ I believe that addressing these two questions separately makes it clearer than the current (somewhat illogical) concept that damage must be caused by a state's omission. See, Krieger (n. 8), para. 60.

1. Physical Causation

In its case law the Court has laid out a rich bundle of criteria applicable to interference, such as that the harm caused must be ‘severe’,⁵⁴ ‘serious’,⁵⁵ ‘above minimum level’,⁵⁶ ‘specific’, ‘direct’,⁵⁷ ‘likely’, not ‘clearly uncertain’,⁵⁸ ‘*suffisamment établi*’,⁵⁹ ‘real and immediate’,⁶⁰ ‘lasting’,⁶¹ etc., without much concern for doctrinal systematisation and terminological consistency,⁶² although the criteria are summarised as requiring a direct and severe impact.⁶³ The challenge the two actions raised was to adapt the criteria to the characteristics of climate change effects. I will reconstruct and comment on these new efforts by suggesting that the criteria be structured and complemented along five dimensions, namely directness, individualisation, intensity, certainty, and time.

In doing this it should be remembered that the Court examines the causation of harm as a joint matter of admissibility (viz. victim status) and substance (viz. interference). This overlap of examination implies that some of the criteria applicable to victim status reappear as criteria applicable to the substance of interference.

Given that the Court in principle admitted the case as a collective action, it construed interference as being related to individuals. It does not recognise a right on the part of the association as such. Rather, an association

⁵⁴ See, e.g., ECtHR, *Kyrtatos v. Greece*, judgment of 22 May 2023, application no. 41666/98, para. 52; ECtHR, *Moreno Gomez v. Spain*, judgment of 16 November 2004, application no. 4143/02, para. 58.

⁵⁵ See, e.g., ECtHR, *Guerra and Others v. Italy*, judgment of 19 February 1998, application no. 116/1996/735/932, para. 60; ECtHR, *Kania v. Poland*, judgment of 10 May 2007, application no. 12605/03, para. 98.

⁵⁶ ECtHR, *Fadeyeva v. Russia*, judgment of 9 June 2005, application no. 55723/00, para. 69.

⁵⁷ ECtHR, *Fadeyeva* (n. 56), para. 68; ECtHR, *Kyrtatos* (n. 54), para. 53.

⁵⁸ ECtHR, *L. C. B. v. the United Kingdom*, judgment of 9 June 1998, application no. 14/1997/798/1001, para. 39.

⁵⁹ ECtHR, *Tatar v. Romania*, judgment of 27 January 2009, application no. 67021/01, para. 106.

⁶⁰ ECtHR, *Öneryildiz v. Turkey*, judgment of 30 November 2004, application no. 48939/99, para. 100.

⁶¹ ECtHR, *Lopez Ostra* (n. 47), para. 57; ECtHR, *Moreno Gomez* (n. 54), para. 60.

⁶² See Natalia Kobylarz, ‘The European Court of Human Rights, An Underrated Forum for Environmental Litigation’ in: Helle Tegner Anker and Birgitte Egelund Olsen, *Sustainable Management of Natural Resources. Legal Instruments and Approaches* (Intersentia 2018), 99–120 (112).

⁶³ ECtHR, Guide to the Case Law of the European Court of Human Rights – Environment, updated 31 August 2023, para. 63, available at <<https://ks.echr.coe.int/web/echr-ks/envir>>, last access 16 July 2024.

‘[...] is genuinely qualified and representative to act on behalf of those individuals who may arguably claim to be subject to specific threats or adverse effects of climate change on their life, health, well-being and quality of life as protected under the Convention [...].

However, this can hardly mean that the persons represented must meet the criteria to have victim status. Otherwise, the Court could not have accepted a collective action in the case at hand because the individual applicants were denied victim status. Requiring victim status in the strict sense would also not reflect the Court’s basic understanding of enabling the representation of collective interests.

Taking a more systematic perspective, it may have been unwise to identify the content of the right based on victim status in the first place. It may well be that a right offers wider substantive protections than it grants persons standing to raise possible violations. After all, there are many situations in which a law is violated but a judicial review is still not available.

a) Directness

The Court’s standing case-law requires the directness of causation. Direct causation is obvious in cases in which an identifiable physical object (such as noxious substances emitted somewhere) is transported to an environmental medium (such as the atmosphere). The criterion is less clear if some third factor intervenes. The Court understands directness to exclude the causation of deleterious effects on the environment as a good in itself because, as already noted, the Court has consistently refused to interpret human rights as a general right to a healthy environment,⁶⁴ including in the *Klima-Seniorinnen* case (§§ 445-447). However, if there is a direct link between the degraded state of the environment and the life or private sphere of the right-holder, this can constitute interference. For example, such a link has been recognised in cases of air pollution in which the Court – at least implicitly – accepted that the air ‘as such’ must be kept clean as a condition for good health.⁶⁵

⁶⁴ ECtHR (Grand Chamber), *Hatton* (n. 47), para. 96.

⁶⁵ ECtHR, *Lopez Ostra* (n. 47), paras 50-51; ECtHR, *Fadeyeva* (n. 56), para. 68; ECtHR, *Dubetska and Others v. Ukraine*, judgment of 10 February 2011, application no. 30499/03, para. 105; ECtHR, *Cordella and Others v. Italy*, application nos. 54414/13 and 54264/15, paras 100, 157-160. See further on concretising the general right (although overexpanding it quite a bit) Brian Preston, ‘The Nature, Content and Realisation of the Right to a Clean, Healthy and Sustainable Environment’, J. Envtl. L. 36 (2024), 159-185.

Accepting indirect interference is crucial in relation to climate change, because greenhouse gas emissions are converted into deleterious effects on rightholders only after complex intermediate physical interactions. In this sense, a life-sustaining climate can be included in the protective reach of fundamental rights insofar as it conditions human health, private homes, family life, property, etc.⁶⁶ In the *KlimaSeniorinnen* case the Court supports this view (§ 425).

b) Individualisation

Human rights are by definition the rights of individuals. While rights are formulated in general terms (e.g. the protection of human health or property), they must be concretised in order to be applicable to individual cases. Where *locus standi* is narrowly defined and an applicant has passed the door of admissibility, the individual dimension is usually more broadly conceived. For example, the German Federal Constitutional Court, when examining the compatibility of the German Climate Protection Act with fundamental rights, had in mind the fate of younger persons at large rather than the individual circumstances of the applicants who successfully fulfilled the requirements to have standing.⁶⁷ By contrast, the Court does not lose sight of the individual applicants even at the merits stage. In the *KlimaSeniorinnen* case, the Court requires adverse consequences to affect the applicant in each individual case (§ 531). Although the Court discusses this narrow definition as defining victim status, it at the same time appears to make it a component of the substantive right itself.

As explained above, this narrow construction and its incongruence with the collective nature of climate change leads the Court to accept a collective action. However, it is unclear how this opening up of standing affects the construction of the right itself. The association has standing as the representative of but not as the holder of a substantive right. The right itself remains one of individuals. But the right is not reduced to one that only protects those individuals who are personally and seriously harmed. Rather, the right protects individuals in a generalised sense, as members of collectives that in multiple ways suffer from the various causes of climate change and want a

⁶⁶ See, also, Natalia Kobylarz, ‘Balancing Its Way Out of Strong Anthropocentrism: Integration of “Ecological Minimum Standards in the European Court of Human Rights” “Fair Balance” Review’, *Journal of Human Rights and the Environment* 13 (2022), 16-85; who argues in favour of building an ecological minimum into the Court’s fair balance review.

⁶⁷ Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30 passim.

range of measures to be taken. Nevertheless, the association must show that there are individuals ‘who may arguably claim to be subject to specific threats or adverse effects’ (§ 524). However, I submit, these individuals do not have to appear as applicants. It should suffice for the association to be able to name some or groups of them and describe their situation.

c) Intensity

The interference with a right must be severe, excluding mere superficial harm.⁶⁸ The Court has constantly required this with regard to Art. 8 of the Convention.⁶⁹ In the *KlimaSeniorinnen* case, it approved this, setting a high standard:

‘It is necessary to establish, in each applicant’s individual case, that the requirement of a particular level and severity of the adverse consequences affecting the applicant concerned is satisfied, including the applicants’ individual vulnerabilities which may give rise to a pressing need to ensure their individual protection.’ (§ 531)

Applying this test to the applicants in the *KlimaSeniorinnen* case, the Court examines the personal situation of the elderly ladies, concluding, as already noted, that they did not fulfil these requirements (§ 533).

d) Certainty

In principle, the causal nexus must be ‘proven’ in fact, excluding abstract statements or hypotheses.⁷⁰ While the Court sometimes refers in its case law to the standard of ‘beyond reasonable doubts’, it does allow for some flexibility ‘taking into consideration the nature of the substantive right at stake and any evidentiary difficulties involved’.⁷¹ Probabilistic methods in relation to the risk of accidents occurring in dangerous installations or the

⁶⁸ ECtHR, *Lopez Ostra* (n. 47), para. 51; ECtHR (Grand Chamber), *Hatton* (n. 47), para. 118; ECtHR, *Marchis and Others v. Romania*, decision of 28 June 2011, application no. 38197/03, para. 33. For an elaboration of the criterion in relation to climate protection, see Cour d’Appel Bruxelles, *VWZ Klimazaak* (n. 40), paras 139, 141.

⁶⁹ For the Court, see the case of ECtHR, *Lopez Ostra* (n. 47), para. 51; ECtHR (Grand Chamber), *Hatton* (n. 47), para. 118; ECtHR, *Marchis* (n. 68), para. 33.

⁷⁰ ECtHR, *Asselbourg and Others v. Luxembourg*, decision of 29 June 1999, application no. 29121/95.

⁷¹ ECtHR, *Fadeyeva* (n. 56), para. 79; ECtHR, *Ivan Atanasov v. Bulgaria*, judgment of 2 December 2010, application no. 12853/03, para. 75.

dose-response relationships of dangerous substances are common ground for domestic courts,⁷² but less so for the Court itself, though in the *Tatar* case such methods were accepted in relation to the occurrence of asthma on account of sodium cyanide⁷³ and, in the *Budayeva* case, in relation to the occurrence of a disaster on account of an insufficiently dammed mudslide.⁷⁴

In terms of climate change, the traditional concept that a certain number of emitted substances can be traced back to a certain amount of damage must obviously be abandoned and replaced with a model that recognises a correlation between the input of emissions into the climate system and damage caused on the output side. In the *KlimaSeniorinnen* case, the Court accepts this as an established scientific consensus, relying on the relevant reports by the International Panel on Climate Change (IPCC) (§ 546).

It is worth noting that it has been discussed in the literature⁷⁵ as well as by the parties and several intervenors whether the degree of certainty required depends on the recognition of the precautionary principle as a component of human rights. Interestingly, the Court has not once used precaution as an argument, apparently assuming that the times of uncertainty about effects of greenhouse gas emissions are over.

e) Time

The interference with a right must be ‘present’, or ‘imminent’, or ‘immediate’.⁷⁶ These criteria are problematic if causes occur or have their effect only in the future. The Court has already implicitly accepted the relevance of such future effects by holding that, in relation to future harm, it is not enough merely to invoke risks, but that there must be some degree of probability.⁷⁷

The German Federal Constitutional Court’s construct of the advance effect of future interferences with fundamental freedoms (see section V. 2. above) is particularly suited to capturing such future effects. It is possible to transfer this idea to a positive obligation setting. The notion of advance effect

⁷² For an example of the standard of review in the risk assessment of nuclear power facilities, see Federal Constitutional Court, *Schneller Brüter*, judgment of 8 August 1978, case no. 2 BvL 8/77, BVerfGE 49, 89 et seq.

⁷³ ECtHR, *Tatar* (n. 59), para. 102.

⁷⁴ ECtHR, *Budayeva* (n. 35), paras 147-160.

⁷⁵ See, on the Court’s case law, Kobylarz (n. 62), 109-112.

⁷⁶ ECtHR, *Tatar* (n. 59), para. 106; ECtHR, *Öneryildiz* (n. 60), para. 100.

⁷⁷ ECtHR, *Aly Bernard and Others v. Luxembourg*, decision of 29 June 1999, application no. 29197/95.

can be used to conceive of present-day positive obligations as being particularly stringent in view of future restrictions on livelihoods. This is also the position the Court took in the *KlimaSeniorinnen* case when it stressed the importance of intergenerational burden-sharing (§ 420).

According to the Court, only generations that are currently alive are protected by Art. 8 of the Convention, because human rights presuppose that a person already exists. Future generations are protected by ‘objective’ obligations established under international law (§ 420).⁷⁸

2. Attribution to States

Assuming there is a causal relationship between emissions and interference with the health and private life of rightsholders, the next question is how the state’s related obligations can be grounded. As explained above, the Court relies on its interpretation of Art. 8 of the Convention as a positive obligation, emphasising it as a right of individuals to enjoy effective protection from climate change impacts (§ 544).

However, an individual state cannot be held responsible for all the harm caused by the entirety of states. Inversely, it cannot legitimately be argued that responsibility lies with the community of states but not on the individual state, for, as the Court explains, ‘the global climate regime established under the United Nations Framework Convention on Climate Change (UNFCCC) rests on the principle of common but differentiated responsibilities and respective capabilities of States (Article 3 § 1).’ (§ 442) Rather, grounds for shared responsibility need to be found (a) and the precise amount of a state’s share needs to be calculated (b).

a) Shared Responsibility

There is still no clear Court jurisprudence on obligations when the interference is caused by more than one actor. Holding a state jointly and severally liable for the entire contribution of all states would create an excessive burden for the respective state. It is thus little surprising that this option has received limited support. Obviously, some kind of shared re-

⁷⁸ The German Federal Constitutional Court draws a similar distinction between the subjective character of human rights and the objective nature of Art. 20a of the German Basic Law (*Grundgesetz*, GG), see Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30, paras 108–109.

sponsibility is the preferable response. In this sense, the United Nations International Law Commission (ILC) proposes that the ‘general rule in international law is that of separate responsibility of a State for its own wrongful acts’.⁷⁹ Likewise, the Netherlands Hoge Raad held that, under Arts. 2 and 8 of the Convention, the Netherlands is ‘obliged to do “its part” in order to prevent dangerous climate change, even if it is a global problem’.⁸⁰ In the *KlimaSeniorinnen* case, the Court held a similar view, reasoning ‘that each State has its own share of responsibilities to take measures to tackle climate change [...]’ (§ 442).

b) Determination of the Share in Responsibility

A state’s share in responsibility for climate effects first of all depends on how the threshold of allowable interference is determined. There are two possibilities: One is to look at the harm caused to human health and welfare in a concrete sense and to establish a measure of intolerable severity; the other is to abstractly define harm as the exceedance of a state’s fair share in a global emissions budget. The applicants in both the *Klima-Seniorinnen* and the *Duarte Agostinho* cases proposed applying the fair share approach.⁸¹

In what follows I will discuss the fair share concept (aa) and the concrete harm approach (bb), outline the position taken by the Court (cc) and come to a conclusion.

aa) Exceeding a Fair Share

There are two steps in the fair share approach: the calculation of the global budget and the allocation of shares to states.

The global budget is calculated on the basis of specific upper limits as regards temperature increases. It is based on the well-proven fact that greenhouse gas emissions remain in the atmosphere for hundreds of years, build up increasing concentrations and cause the atmosphere to warm up. Based on this correlation of factors it is possible to calculate those quantities of emis-

⁷⁹ ILC, ‘Articles on the Responsibility of States for Internationally Wrongful Acts with Commentaries’, (2001) ILCYB, Vol. II, Part Two, Art. 47, paras 1, 6.

⁸⁰ Hoge Raad, *Urgenda* (n. 39), para. 5.7.1.

⁸¹ *KlimaSeniorinnen*, Application Form, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20201126_Application-no.-5360020_application.pdf>, last access 16 July 2024; *Duarte Agostinho and Others*, Application Form, para. 29 and the Annex, paras 31-32, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20200902_3937120_complaint.pdf>, last access 16 July 2024.

sions – the global ‘budgets’ – that are still available from a certain point in time up until the temperature limits are reached.⁸²

Such temperature limits were set in the Paris Agreement, Art. 2 of which calls for ‘efforts’ to stay below 1.5°C and to definitely stay ‘well below’ 2°C. The IPCC Working Group I estimated the global CO₂ budget that remained at the beginning of 2020 to be 500 Gt for up to 1.5°C warming with a 50 % likelihood, or 300 Gt with a 83 % likelihood. The budget for up to 2°C warming was 1350 Gt with a 50 % likelihood and 900 Gt with a 83 % likelihood.⁸³

While these estimates take the temperature limits to be a scientific assumption, it is a question of law as to whether the limits are legally binding. The applicants in both the *KlimaSeniorinnen* and *Duarte Agostinho* cases alleged that the 1.5°C limit should be seen as binding.⁸⁴ The Court does not take an unequivocal position on this, but holds it to be a possible interpretation by making reference to the serious damage the IPCC report SR1.5°C already forecast in the case of 1.5°C of warming. The Court also refers to the so-called Glasgow Climate Pact concluded at COP26 that ‘resolves to pursue efforts to limit the temperature increase to 1.5°C’ and recognises ‘that limiting global warming to 1.5°C requires rapid, deep and sustained reductions in global greenhouse gas emissions [...]’.⁸⁵ The Court provides no doctrinal basis for its bindingness, but the Glasgow Climate Pact and a growing consensus across state policies and court decisions about the 1.5°C limit may be qualified as a ‘subsequent agreement’ within the meaning of Art. 31 (3) (a) of the Vienna Convention.

⁸² As an alternative to temperature limits, greenhouse gas emissions concentration limits in the atmosphere have been proposed as a starting point for calculating emissions budgets. They were submitted by an intervenor in *KlimaSeniorinnen* (§ 400) but not commented on by the Court. The fatal CO₂ concentration is proposed to be about 350 ppm, the actual level having reached above 420 ppm. The threshold is considered to mark the transition to the earth’s energy imbalance where the heat coming from the sun is not adequately radiated back into space. Karina von Schuckmann et al., ‘Heat Stored in the Earth System: Where Does the Energy Go?’, *Earth System Science Data* 12 (2020), 2013–2041 (2029); James Hansen et al., ‘Target Atmospheric CO₂: Where Should Humanity Aim?’, *Open Atmospheric Science Journal* (2008), 217–230 (217).

⁸³ Intergovernmental Panel on Climate Change (2021), ‘Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change’, Figure SPM.2.

⁸⁴ *KlimaSeniorinnen*, Application Form, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20201126_Application-no.-5360020_application.pdf>, last access 16 July 2024, para. 1.3.2.; *Duarte Agostinho and Others*, Application Form, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2020/20200902_3937120_complaint.pdf>, last access 16 July 2024, para. 28.

⁸⁵ Glasgow Climate Pact, 13 November 2021, FCCC/PA/CMA/2021/10/Add.1, 1/CMA.3, paras 21, 22.

One could, alternatively, revert to ‘well below 2°C’ as stated in Art. 2 of the Paris Agreement by looking at its ‘*travaux préparatoires*’. Following the view of the German Federal Constitutional Court, ‘well below 2°C’ can be read to effectively mean 1.75°C, referring to the fact that during the Paris negotiations 2°C was chosen on the basis of a 66 % confidence level, ‘well below’ being added to indicate that a higher level of confidence should be aimed at. Obviously, such a higher level of confidence would be achieved by setting a limit that is significantly lower than 2°C. Even 1.5°C could be regarded as representing the ‘well below’, considering that 1.5°C is proposed with a probability of error as high as 50 %.⁸⁶

In a second step, the global budget is distributed across states. Many criteria that could be applied in this process have been discussed. Some have made it into Arts 2 (3) and 4 (3) Paris Agreement, such as equity, common but differentiated responsibilities and respective capabilities. The application of these criteria to states results in a range of different emissions amounts, called a state’s ‘fair share range’. For instance, an emerging, rich country with a small population (e.g. Saudi Arabia) will receive a comparatively large budget based on past responsibility (due to its short history of industrialisation), but small ones based on capabilities (due to its actual wealth) and on equal per capita emissions (due to its small population).⁸⁷

The German Federal Constitutional Court, for example, relied on equal per capita emissions as related to the budget remaining in 2020.⁸⁸ This led to a very small budget of 6.7 Gt for Germany that would have been used up by about 2030 if the usual yearly emissions continued.⁸⁹

By contrast, the applicants in the *KlimaSeniorinnen* and *Duarte Agostinho* cases submitted that a combination of criteria were to be applied. They advocated applying the methodology of the Climate Action Tracker (CAT), a widely used tool for assessing the climate protection performance of

⁸⁶ Note that the 900 Gt estimated for 2°C with a 83 % likelihood comes close to the 850 Gt for 1.7°C with a 50 % likelihood as well as with the 900 Gt for 1.5°C with a 17 % likelihood. See n. 83.

⁸⁷ As an aside on interdisciplinarity, it can be noted that scientists normally juxtapose equity-based fair shares and feasibility-based modelled emissions reduction pathways. The matter of how these approaches fit into legal categories is as yet unresolved. I suggest using fair shares to determine a state’s contribution to the level of interference with rights and modelled pathways to test the necessity of the interference in view of prevailing public interests. On modelled pathways, see further below in section VII.

⁸⁸ Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30, para. 36.

⁸⁹ Federal Constitutional Court, judgment of 24 March 2021, case no. 1 BvR 2656/18, 78, 96, 288/20, BVerfGE 157, 30, paras 225-233.

states.⁹⁰ The criteria proposed are responsibility for past emissions, capability in terms of Gross Domestic Product (GDP), need for development and present equal per capita emissions.⁹¹ A fair share range is determined for each country. The smallest and largest budgets within a state's fair share range are added to the lowest and highest emissions within all the other states' fair share ranges, respectively. This results in a global range of emissions budgets that ranges from the smallest budget (representing a global best case scenario) to the largest budget (representing a global worst case scenario).⁹² The impacts of the lowest and highest budgets are then evaluated in terms of their effects on global warming.

As the largest budget (or the least effort by all the states combined) and even the smallest budget (or the best effort by all states combined) reach beyond 1.5°C and also 2°C, the entire package needs to be compressed until it is compliant with the 1.5°C and 2°C limits. The percentage of reductions necessary to reduce the package is applied to each state without further differentiation, considering that equity criteria were already used to determine the individual states' fair share range. The calculation starts at the top end of each state's fair share range and descends by the same percentage until the aggregate of all the states reaches the emission level that is consistent with the assumed temperature ceiling.⁹³

As a result of this process, fair share ranges for each country's three temperature categories – <1.5°C, 1.5-2°C and >2°C – are established. The >2°C category can be further subdivided into 2-3°C, 3-4°C and >4°C. Each of these six categories corresponds to the temperature outcomes that would result if all other governments were to commit to emissions reductions with the same relative position on their respective fair share range or the same ambition level. Calculating a state's available budgets in this way makes it possible to assess the state's actual emissions. This allows to conclude whether a particular state is staying within or is exceeding the 1.5°C or 2°C

⁹⁰ See *Verein KlimaSeniorinnen*, Observations on the Facts, Admissibility and the Merits, paras 37-44, <https://climatecasechart.com/wp-content/uploads/non-us-case-documents/2022/20221202_Application-no.-5360020_petition.pdf>, last access 16 July 2024; *Duarte Agostinho and Others*, Observations of the Applicants on Admissibility and Merits of 9 February 2022, paras 126-144, <<https://youth4climatejustice.org/case-documents/>>, last access 16 July 2024.

⁹¹ <<https://climateactiontracker.org/methodology/cat-rating-methodology/fair-share/>>, last access 16 July 2024.

⁹² Jakob Wachsmuth et al., 'Fairness- and Cost-Effectiveness-Based Approaches to Effort-Sharing Under the Paris Agreement', *Climate Change* 39 (2019); Environmental Research of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (on behalf of the German Environment Agency).

⁹³ Lavanya Rajamani et al., 'National "Fair Shares" in Reducing Greenhouse Gas Emissions Within the Principled Framework of International Environmental Law', *Climate Policy* 21 (2021), 1-22 (16).

limit. In the case of exceedance, it will be found to have overstepped the threshold of interference.

As respondent state in the *KlimaSeniorinnen* case, Switzerland submitted information about its own calculation, proposing the ratio of *de facto* emissions *per capita* in a specific reference year as the relevant criterion.⁹⁴ This implies that the country starts with a higher ratio than many other states. When calculated for 2016 (the year after the Paris Agreement was signed), the country could claim 0.1201 % of the global budget, while the Swiss population amounted to 0.1117 % of the global population. This advantage would be perpetuated over time. The concept is a form of ‘grand-fathering’ and is widely considered to be incompatible with transnational fairness.⁹⁵

Nevertheless, the applicants – for the sake of the argument – agreed with the Swiss approach and did their own count based on the emissions per capita criterion, leaving out responsibility for past emissions. As result, the budget remaining in 2021 was calculated to be 381 MtCO₂. If spent in linear digression it would be exhausted in 2040. If spent with a degression corresponding to the Swiss nationally determined contribution (NDC) of 34 % below 1990 levels by 2030, it would be exhausted in 2030. If spent with a degression corresponding to the Swiss NDC of 75 % below 1990 by 2040 and net 100 % by 2050, it would be exhausted in 2033.⁹⁶

In summary, depending on how the global budget is calculated and allocated, states have different amounts of emissions at their disposal. In any case, under any single criterion or combined set of criteria, developed states, including Switzerland, will be left with very small residual budgets, meaning that they can easily be found to have overspent their budget given the current yearly quantities of emissions.

bb) Harm Caused Concretely

The factual basis of the fair share approach is subject to uncertainty at various points, including the likelihood of available budgets in relation to different temperature limits and the effects of the limits on the environment

⁹⁴ Based on Lucas Bretschger, ‘Climate Policy and Equity Principles: Fair Burden Sharing in a Dynamic World’, *Environment and Development Economics* 18 (2013), 517-536.

⁹⁵ Andreas Buser, Of Carbon Budgets, Factual Uncertainties, and Intergenerational Equity – The German Constitutional Court’s Climate Decision, *GLJ* 22 (2021), 1409-1422 (1421), doi:10.1017/glj.2021.81; Rajamani et al. (n. 93), 992, 997.

⁹⁶ The applicants relied on a study by Yann Robiou du Pont, Zebedee Nicholls, Calculation of an Emissions Budget for Switzerland Based on Bretschger’s (2012) Methodology, 26 April 2023, <https://en.KlimaSeniorinnen.ch/wp-content/uploads/2023/04/230427_53600_20_An nex_Doc_2_Robiou_du_Pont_Nicholls_Expert_Report.pdf>, last access 17 July 2024.

and societies. The methodology of burden-sharing, especially if one is relying on a combination of criteria, is difficult for non-scientists to understand. The normative assumptions, in particular concerning the level of temperature limits and the allocation criteria, can be and have been long debated. For these reasons, courts are reluctant to follow the fair share approach.⁹⁷

A more pragmatic and simple concept should be considered as an alternative. It may even be inescapable, because if the 1.5°C limit is soon exceeded, there will no longer be any available budget, unless new budgets are calculated on the basis of new but ever more disastrous warming limits. It would suggest that the threshold of interference is defined by the concrete assets protected by the relevant human right, such as health or private life, and the direct, severe, personal, proven, and present harm caused.

What an individual state has contributed would simply correspond to its part in actual global emissions, not to its fair share in terms of equity criteria. A specific state's contribution is then expressed as its percentage of global emissions over a chosen period of time. This period could be determined by making reference to the date on which the community of states became aware – or negligently ignored – that its conduct causes climate change.⁹⁸ One possibility is to refer to 1992, the year in which the Framework Convention on Climate Change (FCCC) was concluded. In conclusion, it would have to be acknowledged that any contribution by any state, including Switzerland, already crosses the threshold of interference.

cc) The Court's Approach

In the *KlimaSeniorinnen* case, the Court finds that the fair share approach is an acceptable way of determining a country's emissions limitations (§ 573). It accepts 'equal per capita emissions' as a possible criterion in relation to the allocation of shares (§ 569) and regards climate neutrality by the middle of this century as a binding target (§ 548). However, it neither examines the approach in detail nor does it prescribe a specific method of calculation. Rather, the Court directs the respondent state to take the approach into consideration and elaborate its own budget (§§ 570–571). Thus, conceding a wide margin of appreciation, it nevertheless finds Switzerland to have overstepped the limits of discretion, both in relation to the past and the future. As regards the past, the reduction target of 20 % by 2020 was insufficient (§ 558) and had even been missed (§ 559). As regards the future, the new Climate

⁹⁷ See, as example of such reluctance, Ontario Superior Court of Justice, *Sophia Mathur et al. v. Ontario*, judgment of 14 April 2023, case no. CV-19-00631627-0000, para. 109.

⁹⁸ See also Cour d'Appel Bruxelles, *VWZ Klimaatzaak* (n. 40), para. 139.

Act of 2022, while envisaging net zero emissions by 2050 and providing intermediate targets, does not set a reduction target for the period between 2025 and 2030 (§§ 564-566). Moreover, the Climate Act provides for concrete measures only to be taken ‘in good time’ (§ 565).

Although the Court’s conclusion is well-founded, its premise – trust in the budget approach – raises doubts. As shown in the above, the budget approach is loaded with uncertainty and evaluations that can be implemented in very different ways. Switzerland will have little trouble setting intermediate targets for the period 2025-2030 and adopting concrete measures. The concrete approach I suggest would concede that damage has already been caused and that the respondent state (Switzerland) has contributed and will continue to contribute to it.

In conclusion, it must unequivocally be acknowledged that Switzerland, and many other industrialised or emerging states, has/have exceeded the threshold of interference, either because the available budget is too unambitious, or because it is or will soon be overspent, or because damage has already been done. The simple consequence is that all further emissions must be drastically reduced or stopped immediately.

Nevertheless, a second step is available – the possible justification of interference – from which an ambitious phasing-out scheme can be derived.

VII. Justification (or not) of the Interference – or the Content of Positive Obligations

The causation of harm (or rather the interference with the right at stake) can be justified to the extent that emissions are necessary in the public interest or in the interest of other rightsholders.⁹⁹

The Court does not examine any relevant interests, nor does it assess their importance, but it would probably regard the continued use of fossil energy as an important public interest as long as this has not yet been replaced by renewables.

Under this assumption, the necessity test requires that the use of fossil energy be reduced to a minimum. The key question then is how to determine this minimum. One way is to use the IPCC and CAT methodology to calculate modelled pathways of emissions reductions. I will summarise this

⁹⁹ See Art. 8 (2) of the Convention. As explained in section I., following Judge Wildhaber’s advice the Court’s determination of the applicable rights’ content (§§ 410-456 and §§ 507-520) can be understood to focussing on the interference with rights, and the determination of the measures to be taken (§§ 538-540) as the possible justification – or not – of that interference.

concept (1.), describe the Court's approach (2.) and add a comment suggesting a certain modification of that approach (3.).

1. Modelled Reduction Pathways

The applicants in both the *KlimaSeniorinnen* and *Duarte Agostino* cases submitted modelled pathways as proposed by the IPCC and CAT.¹⁰⁰ However, although reporting relevant material provided by the IPCC and submissions by parties and intervenors (§§ 324, 359, 409), the Court did not take a stance on that approach. I will nevertheless discuss it as an option that could be taken up by other courts.

Modelled reduction pathways are the result of a two-step reasoning process.¹⁰¹

First, scenarios from hundreds of studies at the national, regional, and international level are collated and merged to form global pathways. They show the potential for reducing emissions from major sectoral sources, including renewables, industry, transportation, buildings, agriculture, and waste¹⁰² as well as from cross-sectoral policies (such as renewables) and tools (like regulation, economic incentives, and emissions trading).¹⁰³ The reduction potentials for five global regions are divided up based on cost-effectiveness standards.¹⁰⁴ This leads to the identification of least-cost reduction pathways for each region. The remaining emissions are counted and the corre-

¹⁰⁰ *Verein KlimaSeniorinnen*, Observations on the Facts, Admissibility and the Merits, paras 45-48 (n. 90); *Duarte Agostinho and Others*, Observations on the Facts, Admissibility and the Merits, 5 December 2022, paras 97-105, 145-147, <<https://youth4climatejustice.org/case-documents/>>, last access 17 July 2024.

¹⁰¹ As not all of the related documents are publicly available, I refer to the methodology applied and published by the CAT, although this may have been modified in the applicants' submissions. See <<https://climateactiontracker.org/methodology/cat-rating-methodology/>>, last access 17 July 2024.

¹⁰² Due to a lack of accurate data and consensus, counts, emissions and absorptions from land use, land use change and forestry (LULUCF) are not included. See <<https://climateactiontracker.org/methodology/land-use-and-forestry/>>, last access 17 July 2024.

¹⁰³ IPCC AR6 WG III. For a recent compilation of scenarios, see Joel Jaeger et al., 'Methodology Underpinning the State of Climate Action Series: 2023 Update', doi.org/10.46830/writn.23.00043.

¹⁰⁴ Cost-effectiveness is calculated by assuming that the cost of a tonne of CO₂ emissions is the same worldwide (this is known as the marginal price) and then counting the amount of reduction investment a state would make at this price. This naturally indicates that, given a fixed price, nations with abundant sunlight and low wages will produce more renewables than nations that do not. The warming impacts of the remaining emissions are then tallied and evaluated. Temperature ranges are created by raising or lowering the marginal price in accordance with various temperature ceilings.

sponding warming impacts are calculated for pathways that differ in terms of how ambitious they are. Five ranges of temperature ceilings – <1.5°C, 1.5–2°C, 2–3°C, 3–4°C and >4°C – are mapped onto categories of pathways.

The pathways suggested by the applicants in the *Duarte Agostinho* case are those that relate to Europe as a region. They are compiled to ensure compliance with the 1.5°C limit with no or limited overshoot above 1.5°C and minimal carbon dioxide removal (CDR).¹⁰⁵

Second, the effective regional pathways are scaled down to create national pathways, taking into account states' capabilities (e. g. GDP) and conditions (e. g. population size).¹⁰⁶ The state's pathway that corresponds to the 1.5°C limit can then be plotted as a curve that shows the decrease in emissions between the base year (1990) and the year by which net zero emissions is to be achieved. The curve corresponds to the median of the entire set of a states' modelled pathways. The actual and programmed performance of a state can be measured against this curve. If a state's actual and programmed performance describes a national curve that exceeds the modelled curve, the state is deemed not to have taken the necessary emissions reduction measures. The applicants in the *Duarte Agostinho* case alleged that almost all of the respondent states indeed exceeded their curve.¹⁰⁷

As with fair shares, modelled pathways involve uncertainties and evaluations, and their complex design is difficult to understand for non-experts. This may make courts reluctant to accept this approach. Even more importantly, the approach has met with criticism because of its reliance on cost-effectiveness as a criterion for allocating reduction efforts.¹⁰⁸ It is true that states benefitting from the cost-effectiveness criterion are called to transfer financial means for reduction measures to be taken in less-cost countries as a kind of compensation for inaction. However, states must provide human rights protection in kind and directly. A state should not be able to evade its obligations by shifting them onto other states. However, it is true that external measures induced by financial transfers may be classed as a reduction by the financing state (or 'offset' as the language of economics would put it), but this can only be classed as human rights protection if the emissions

¹⁰⁵ See *Duarte Agostinho and Others*, Observations of the Applicants on Admissibility and Merits of 9 February 2022, paras 136–142, <<https://youth4climatejustice.org/case-documents/>>, last access 17 July 2024.

¹⁰⁶ <<https://climateactiontracker.org/methodology/cat-rating-methodology/modelled-domestic-pathways/>>, last access 17 July 2024.

¹⁰⁷ *Duarte Agostinho and Others*, Observations of the Applicants on Admissibility and Merits of 9 February 2022, Part VIII, para. 106, taking Belgium as an example, <<https://youth4climatejustice.org/case-documents/>>, last access 17 July 2024.

¹⁰⁸ Rajamani et al. (n. 93), 992.

reduction that is subsidised abroad is permanent and additional to what the country had done anyway.¹⁰⁹

2. The Court's Approach

The Court does not accept the modelled pathway reasoning. It takes a more practical path to determine the necessary emissions reductions, devising a comprehensive list of measures a state is required to take. The state is required, among other things, to

‘(a) adopt general measures specifying a target timeline for achieving carbon neutrality and the overall remaining carbon budget for the same time frame, or another equivalent method of quantification of future GHG emissions, in line with the overarching goal for national and/or global climate-change mitigation commitments;

(b) set out intermediate GHG emissions reduction targets and pathways (by sector or other relevant methodologies) that are deemed capable, in principle, of meeting the overall national GHG reduction goals within the relevant time frames undertaken in national policies;

(c) provide evidence showing whether they have duly complied, or are in the process of complying, with the relevant GHG reduction targets (see subparagraphs (a)-(b) above);

(d) keep the relevant GHG reduction targets updated with due diligence, and based on the best available evidence; and

(e) act in good time and in an appropriate and consistent manner when devising and implementing the relevant legislation and measures.’ (§ 550)

The list can be summed up as requiring two major activities: the determination and monitoring of reduction targets, and the adoption and implementation of reduction measures. States enjoy a margin of appreciation, but this ‘is reduced as regards the setting of the requisite aims and objectives, whereas in respect of the choice of means to pursue those aims and objectives it remains wide’. (§ 549)

Applying this framework, the Court concludes that the measures taken by the respondent state were insufficient. Besides finding that the state in question failed to calculate its emissions budget,¹¹⁰ it holds that that concrete measures are lacking (§ 565). Its conclusion is as follows:

¹⁰⁹ The negative experience gained with the Clean Development Mechanism should be factored in here. See Jeanette Schade and Wolfgang Obergassel, ‘Human Rights and the Clean Development Mechanism’, *Cambridge Review of International Affairs* 27 (2014), 717-735.

¹¹⁰ See section VI. 2. b) cc) above.

‘By failing to act in good time and in an appropriate and consistent manner regarding the devising, development and implementation of the relevant legislative and administrative framework, the respondent State exceeded its margin of appreciation and failed to comply with its positive obligations in the present context.’ (§ 573)

3. Comment

The range of obligations the Court sets out could be understood as relying on the Court’s long-standing practice in environmental cases, which is to examine whether a respondent state has carried out appropriate investigations and taken legislative and administrative measures that are designed to effectively prevent threats to human rights, with the public being given the opportunity to comment. An instructive example of how the Court applied this test is *Cordella and Others v. Italy*, in which the Court carefully scrutinised the measures undertaken by the respondent government to suppress the alleged pollution, concluding that they were insufficient.¹¹¹ When tailoring the approach to climate change the Court takes account of the increased complexity of identifying targets and means. I nevertheless have two concerns.

First, while it is commendable that the Court requires ‘a target timeline for achieving carbon neutrality and the overall remaining carbon budget for the same time’ (§ 550), its trust in deriving such a budget from temperature limits must be called into question because, as stated above,¹¹² there is no remaining ‘free’ budget. Fortunately, the Court remains open to ‘another equivalent method of quantification of future GHG emissions’ (§ 550). My own suggestion in that regard is that the calculation should not be done top-down but bottom-up. This means that, first, all feasible means that a state can apply must be identified. In a second step, any remaining state budget can be calculated as an unavoidable emergency reserve. In a third step, all national budgets can be added together and measured against the resulting warming effects. Such an approach could be called the ‘best possible means’ (BPM) approach. BPM resemble best available techniques (BAT) in traditional environmental law. In air and water pollution law, BAT standards are set in addition to standards for ambient air or water quality (environmental quality standards [EQO]).¹¹³ BAT are self-standing obligations that must be met

¹¹¹ ECtHR, *Cordella* (n. 65).

¹¹² See VI. 2. c) bb).

¹¹³ For the EU, see Ludwig Krämer, *EU Environmental Law* (8th edn, Sweet & Maxwell 2016), paras 8-4 and 8-11.

regardless of whether EQO exist or not, or whether they are contested or difficult to identify. That, I believe, is exactly what applies to climate law: Litigation can seek better climate quality objectives, or better implementation of existing ones, or (at least) the application of BPM.

Second, while it is equally commendable that the Court acknowledges a wide margin of appreciation concerning the choice of means, this should not be understood as the discretion to trade emission rights between sectors. The German Climate Protection Act of 2019 can serve as an example. Until recently, it set out precise emissions limits for each of the main emitting sectors.¹¹⁴ These limits were recently flexibilised by an overall account that implies the possibility of offsetting between sectors,¹¹⁵ allowing, for instance, the transport sector to do without speed limits on motorways in exchange for the additional use of renewable energies in the industry sector. However, it will be difficult to find an overperforming sector. Therefore, each and every sector should be required to realise its genuine ability to reduce emissions.

VIII. The Court's Function

In his partly concurring, partly dissenting opinion, Judge Eicke raised principled objections against the judgment in the *KlimaSeniorinnen* case, including¹¹⁶ that the Court overstepped its margin of evolutive interpretation (Opinion, § 3), that it failed to defer to political democracy and the principle of subsidiarity (Opinion, § 20), that climate protection is a matter of global rather than regional or bilateral cooperation (Opinion, §§ 8-10), that in view of the 'potentially enormous evidential and scientific complexities' the Court can hardly 'adequately or at all contribute to (rather than hinder) the fight against climate change in the absence of any clear or agreed measures or guidelines' (Opinion, § 13) and that the Court's intervention is 'much more likely to distract the Contracting Parties and slow down the necessary processes and, even if a judgment is obtained, any delay and/or failure in the implementation of any judgment is only likely to undermine the need for urgent action and, potentially, the rule of law' (Opinion, § 15b).

¹¹⁴ Bundes-Klimaschutzgesetz of 2 Dezember 2019, BGBl. I S. 2513, Art. 4.

¹¹⁵ Zweites Gesetz zur Änderung des Bundes-Klimaschutzgesetzes, BGBl I 2024, 235, Art. 1 § 4 (1)-(4).

¹¹⁶ Due to the limited amount of space available, I will not discuss his detailed doctrinal critique but instead concentrate on his general points.

The last two allegations – courts do not contribute to the fight against climate change and even slow down the necessary process – are descriptive and can be disproved because the Dutch and German legislatures did put the judgments in the *Urgenda* and *Neubauer* cases into effect and there is no evidence whatsoever that the policy process was halted anywhere pending litigation. It also poses a bit of a quandary to posit, on the one hand, that the Court interferes with democratic powers and, on the other, that it has no effect at all. Either the first or the second could be true.

The other allegations are normative statements on the proper role of the Court. They are, in a way, one-sided because emphasising the disadvantages of the Court's innovative steps while disregarding the advantages, or rather disconnecting the pros – the urgency of the climate catastrophe that Judge Eicke does not hesitate to deplore – from any weighing them up against the cons. A more balanced approach would be to acknowledge that the Court has been caught in the multidimensional tension between the braking principle and the liberating principle. Five dimensions can be distinguished that reflect the issues addressed by Judge Eicke: the tension between a precedent-oriented and an evolutive approach, subsidiarity and the complementarity of competences, democracy and judicial legitimacy, the Convention and progressive international law, and the law and science. I will summarise and comment on the Court's positions on each of these aspects.

Precedent-oriented or evolutive approach: The Court has a long-standing practice of citing prior decision although it does not adhere to a rule of binding precedent.¹¹⁷ However, in exceptional cases it takes what is called the 'evolutive approach' by interpreting the Convention as a 'living instrument'.¹¹⁸ The Court already adopted this approach when opening up the rights to life (Art. 2) and respect for private life (Art. 8) to environmental protection. While it has developed this approach largely in view of noxious substances and noise that has travelled from identifiable sources to identifiable victims who live close by,¹¹⁹ climate change is caused by much more distant, multiple and irreversible trajectories. The Court finds this to be a

¹¹⁷ William A. Schabas, *The European Convention on Human Rights* (Oxford University Press 2015), 46.

¹¹⁸ For a contextual analysis see Ivana Jelic and Etienne Fritz, "The 'Living Instrument' at the Service of Climate Action: The ECtHR Long-Standing Doctrine Confronted to the Climate Emergency", *J. Envtl. L.* 24 (2024), 141-158.

¹¹⁹ The cases concerned impacts from tanneries, a chemical factory, an airport, urban development, a rubbish tip, a steel factory, a gold mine, a mudslide, a coal mine, a metallurgical factory, a waste treatment site, a nightclub, and a nuclear test site. For an exhaustive list, see *Guide to the Case Law of the European Court of Human Rights – Environment* – updated 31 August 2023, para. 75, see <https://ks.echr.coe.int/documents/d/echr-ks/guide_environment_eng-pdf>, last access 17 July 2024.

fundamental difference that provides the grounds for ‘an approach which both acknowledges and takes into account the particularities of climate change and is tailored to addressing its specific characteristics’ (§ 422).

Apart from this substantive reason, it seeks a more procedural basis in comparative and international law that shows a growing consensus among contracting states that support this move both in relation to collective actions (§ 493) and the enhanced content of positive obligations (§§ 544-546).

Subsidiarity and complementarity of competences: The Court is, of course, also aware of the principle of subsidiarity, according to which ‘the national authorities have the primary responsibility to secure the rights and freedoms defined in the Convention’. In doing so, they ‘enjoy a margin of appreciation’, but this is ‘subject to the Court’s supervisory jurisdiction’ (§ 541). The principle of subsidiarity is thus attenuated by the competences of supervision.

In addition, the Court refers to the principle of complementarity of competences, meaning that the Convention guarantees core human rights, while national constitutions can go further (§ 412). The core the Court has established is that the collective nature of climate change has been integrated into the realm of human rights, but national law can concretise and go further in terms of the transnational reach of human rights, requirements of *locus standi*, scrutiny of judicial review, etc. (§ 412).

Democratic and judicial legitimation: The Court acknowledges that courts must not encroach upon the political realm of other branches of government but insists that they have competence to protect non-majoritarian interests (§ 412). One might add that courts have their own basis of legitimation as a forum for independent evidential inquiry and reasoned argumentation that differs from the struggles about interests and ideas in the political arena.¹²⁰

Convention rights and international law: Various provisions of international treaty law call contracting states to action, including climate protection treaties such as the FCCC and the Paris Agreement as well as human rights treaties such as the American Convention on Human Rights. This raises the question of the relationship between general international law and the Convention. There are a number of possible doctrinal constructions that can help to answer this question, but the Court has for a long time taken a

¹²⁰ On legitimation through principled reasoning, see Ronald Dworkin, *Taking Rights Seriously* (Harvard University Press 1978), 22-31, 184-205, and on legitimation through deliberative proceedings, see Jürgen Habermas, *Faktizität und Geltung* (Suhrkamp 1992), 272-291. For exemplifying this in the context of the Swiss direct democracy see Pascal Mahon, *L’arrêt de la Cour EDH, le Système Politique Suisse et le Rôle du Juge*, LEXIS SA-La Semaine Juridique – Edition Générale no. 22, 3 Juin 2024, 972.

pragmatic approach called ‘harmonious interpretation’. However, it warns that ‘a failure by the Court to maintain a dynamic and evolutive approach would risk rendering it [the Convention] a bar to reform or improvement’ (§ 455). It is true, though, that the Court sees differences between the subjective nature of human rights and the objective rules of other parts of international law. On that basis it refuses to acknowledge extritorial jurisdiction in relation to the transborder effects of state-controlled emissions (Duarte, § 212).

Law and science: Climate science has collected a huge and meticulously assessed body of knowledge about the causes, effects, and mitigation of climate change. That knowledge some time ago entered the courtroom and has frequently been summarised in court judgments. When reading the facts as cited in a judgment, and especially their catastrophic consequences, one wonders how this influences courts’ decisions. Legal reasoning should be aware of the climate science, but it should also keep an evaluative distance. The cases at hand suggest that a distinction needs to be drawn between facts that are relevant in the application of existing rules and facts that guide the overall design of a rule.

Facts in the application of rules enter the if-then structure of rules when the if-side or the then-side refers to facts. For instance, in Art. 8 of the Convention, the ‘if’ is the causation of harm and the ‘then’ the prohibition of causation. In the *KlimaSeniorinnen* case, the Court was confronted with facts on both the if- and the then-side of the rules. On the if-side, the effects of heatwaves on the applicants were identified with adequate certainty and found not to cause serious adverse effects. On the then-side, the Court was offered calculations of the respondent state’s remaining emissions budget. As the parties contested these calculations, the Court could have taken evidence. But it avoided doing this by putting the burden of proof on the respondent state, stipulating that it had not undertaken any appropriate calculation of its own (§ 571).

Apart from dealing with facts in the application of rules, the Court raises a more fundamental problem of legal interpretation that also relies on facts. This is the question of whether there is any need to fundamentally reinterpret human rights in view of climate change. In that regard, the Court states that the interpretation of the Convention rights ‘can and must be influenced both by factual issues and developments affecting the enjoyment of the rights’ (§ 455). What is meant by the interpretation being ‘influenced’ by facts? Notwithstanding legal theoretical controversies, agreement has been reached that a provision cannot be directly deduced from facts. Nevertheless, facts and rules interact in a more indirect way than mere deduction. Based on the epistemological distinction between a context of justification and a con-

text of discovery,¹²¹ or the validity (*Geltung*) and genesis¹²² of a proposition, facts work on the discovery/genesis side by ‘influencing’ the mental disposition of a judge, which can result in new rules being proposed if the facts have changed. However, in terms of justification or validity, such empirical influence is no reason for a new interpretation.¹²³ A bridge of justification/validity is nevertheless available. This is the principle – or, more precisely, meta-principle – of effectiveness (*effet utile*). It can be regarded as having customary status in international law in general.¹²⁴ The Court has often referred to it when requiring that the ‘Convention is interpreted and applied in a manner which renders its rights practical and effective, not theoretical and illusory’.¹²⁵ This means that the interpretation of a rule may be readjusted if otherwise the older version becomes ineffective. This is precisely the case in the present circumstances, because human rights would indeed become ‘theoretical and illusory’ if silenced in view of today’s catastrophic climate situation.

IX. Summary and Conclusion

This article has analysed the Court’s judgments in the *KlimaSeniorinnen* and *Duarte Agostinho* cases, placing the doctrinal innovations and drawbacks in the context of a wider range of options the Court could have adopted or has explicitly rejected. Making use of its evolutive approach, the Court incorporates the collective nature of the causes, effects and mitigation of climate change into human rights, both in relation to the admissibility of actions and substantive rights.

As regards the admissibility of the complaints, the Court consolidates collective actions. Such actions have in previous rulings been accepted as a procedural tool to assist applicants in bringing their case. They now receive a substantive basis: the representation of interests that are collective in nature. This is commendable, although the details still need to be elaborated, including the representation of non-members and the precise content of the represented interests.

While being innovative in that respect, the Court is unmoveable in other respects.

¹²¹ Hans Reichenbach, *The Rise of Scientific Philosophy* (University of California Press 1951), 231.

¹²² Max Weber, *Wirtschaft und Gesellschaft*, (Mohr Siebeck 1956), 233–250.

¹²³ Gerd Winter, ‘Tatsachenurteile im Prozess richterlicher Rechtssetzung’, *Rechtstheorie* 2 (1971), 171–192.

¹²⁴ Schabas (n. 117), 49.

¹²⁵ ECtHR, *Stafford* (n. 118), para. 68.

It refuses to extend victim status to individuals so that they can assert general interests such as the vulnerability of elderly people or the future life opportunities of the coming generations. It also refuses to extend a state's jurisdiction to cover the external effects of internal emissions and external emissions controlled by a state. This is contrary to the general trend in international law, where jurisdiction is to some degree uncoupled from territoriality and external power is instead coupled with legal authority. Insofar as the Court's reluctance is motivated by the fear of opening the floodgates to legal actions, it is doubtful whether the economy of legal services can be a legitimate argument for cutting back the protective scope of human rights. An excess of actions can, instead, be prevented by means of procedural tools. However, the Court at least accepts the states' obligations to their own citizens in view of the fact that transborder emissions also affect on the domestic sphere.

As regards substance, the Court follows its interpretation of Art. 8 of the Convention in environmental cases as a positive obligation in order to strike a fair balance between the interests of the rightholder and those of the public. This implies distinguishing between an examination of the causation of adverse effects and the positive measures required to prevent such effects. In terms of human rights doctrine, I suggest this can be understood as first examining interference and then the need for that interference in view of important public or rights-based private interests.

The causation of adverse effects (or interference) has two components: the physical impact and the state's responsibility for it. The physical impact is assessed by means of a complex set of criteria that, I suggest, can be structured along the dimensions of directness, individualisation, severity, certainty, and time. The Court construes them rather restrictively in relation to individual applicants but in a somewhat generalised form in relation to the collective action.

As regards a state's obligations, criteria are needed to determine an individual state's share in contribution to global warming. The Court is sympathetic to the idea of deriving a global budget from a 1.5°C warming limit and allocating what are known as 'fair shares' to states based on equity principles. However, it does not have a stance of its own and instead requires the respondent state to do its own calculations.

While such a cautious attitude is commendable, its premise – the budget approach – needs to be reviewed. The review must start with the frank diagnosis that there is no longer any budget available, because the 1.5°C limit will be reached very soon and massive damage has already been caused. Therefore, there has already been interference with human rights.

Continuing to cause emissions can only be justified if they are necessary in the public interest. Finding emissions reduction pathways is thus crucial. The

Court does not venture into the IPCC and CAT methodology of modelling cost-effective pathways as submitted by the applicants. Rather, building on its current practice as regards environmental law, it establishes a set of state obligations in relation to climate change that can be grouped into two clusters: the determination and monitoring of reduction targets and related emissions budgets; and the adoption and implementation of reduction measures. It grants the states a margin of appreciation that is reduced for the first and is wide for the second cluster.

I have concerns about both clusters. If one accepts national budgets that are derived from temperature limits, the Court ignores the fact that, in terms of human rights, the budgets have all been exhausted given that damage has already been caused. I would suggest not doing top-down but bottom-up calculations. This means that, first, all feasible means available to an individual state need to be identified. It is only in a second step that any remaining state budget should be calculated, not as a freely available but as an absolutely unavoidable emergency reserve. In a third step, all national budgets can be added together and measured against the resulting warming effects. Such an approach could be called the ‘best possible means’ (BPM) approach.

As regards the second cluster, it is commendable that the Court acknowledges a wide margin of appreciation as regards the choice of means, but this should not be understood as the discretion to trade emission rights between sectors. Each and every sector must be scrutinised as to its genuine ability to reduce emissions. For example, it should not be possible to offset emissions from the construction and operation of big sports utility vehicles (SUVs) by installing a photovoltaic panel. The SUV itself should be dispensed with.

While these are only minor adjustments, I believe, in conclusion, that the Court’s reasoning is doctrinally coherent and well-founded. As I have shown, the Court is highly vigilant when it comes to the various principles that shape its judicial discretion, including valuing prior case law, subsidiarity, deference to democratically elected bodies, respect for other international law, and prudence in applying climate science. It should also be taken into account that courts contribute to the legitimacy of governance, acting as a forum for independent evidential inquiry and reasoned argument. In some respects, and in particular when it comes to responsibility for state-controlled transborder impacts, there are good reasons to suggest the Court should have gone further.

From a more general perspective, the Court has neither merely adopted any symbolic rhetoric nor acted as a substitute legislator. Rather, it took the middle course of professional constitutional interpretation.

In the same vein, the United States Supreme Court defined the proper realm of the judiciary as any question for which ‘judicially discoverable and

manageable standards for resolving it' exist.¹²⁶ This comes down to the simple observation that the courts have a role to play as long as their standpoint can reasonably be related to existing rules and presented in doctrinal terms rather than political language. I believe the European Court of Human Rights has successfully played that role.

¹²⁶ This criterion is one of a set of five indicators the court established in the case of U. S. Supreme Court, *Baker v. Carr*, 369 U. S. 186 (1962). The entire set, which is now referred to as the 'Baker criteria', reads as follows: 'Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for non-judicial discretion; or the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.'