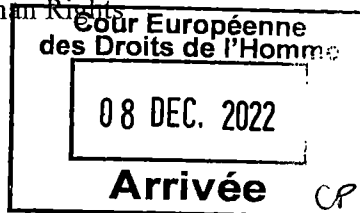


Judge Síofra O'Leary

President of the European Court of Human Rights
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UNIVERSITÄT
BERN

Bern, 5 December 2022

Re: Verein KlimaSeniorinnen and Others v. Switzerland (Application no. 53600/20)

Honourable Judge O'Leary,

Hereby we respectfully submit our observations as third party interveners in the proceeding *Verein KlimaSeniorinnen and Others v. Switzerland* (Application no. 53600/20), pursuant to the leave granted by the President of the Grand Chamber on October 24, 2022, and in accordance with Rule 44(3) of the Court.

We write as a consortium of professors and academic experts working at the University of Bern. As a group, we are well-versed, interested, and concerned about climate change and represent several disciplines with substantial bearing on this case, including climate sciences, health sciences, social and political sciences, economics, ethics, Swiss constitutional and administrative law, human rights law, and public international law.

In view of our expertise, we provide the Court an assessment of (1.) Parties' positive obligations under the European Convention of Human Rights (ECHR) arising from the impacts, threats, and risks of climate change, with a view to mitigation and an up-to-date assessment of epidemiological evidence of older women's affectedness to climate change in Switzerland; (2.) Switzerland's actions in light of its positive obligations, informed by analyses from the climate and political sciences; (3.) the limitations on States' positive duties to protect against the impacts, threats, and risks of climate change; and, (4.) concerning access to justice, applicability and merits of Article 6 ECHR in climate change cases.

Yours sincerely,

Prof. Dr. Dr. Claus Beisbart

Dr. Charlotte Blattner

Prof. Dr. Thomas Frölicher

Prof. Dr. Martin Grosjean

Prof. Dr. Karin Ingold

Prof. Dr. Fortunat Joos

Prof. Dr. Jörg Künzli

Prof. Dr. Christoph Raible

Prof. Dr. Thomas Stocker

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Prof. Dr. Ralph Winkler

Prof. Dr. Judith Wytenbach

1. Parties' positive obligations under the European Convention of Human Rights (ECHR) arising from the impacts, threats, and risks of climate change, with a view to mitigation, and an assessment of Switzerland's actions in light thereof

The Court has long recognised parties' positive obligation to secure human rights.¹ We would like to emphasize that Articles 2 and 8 ECHR impose a duty on national authorities to take reasonable and appropriate measures to provide effective protection against threats to these rights in environmental matters,² including by putting in place a corresponding legislative and administrative framework.³ To violate said duty, a State knew or ought to have known of a real and immediate risk to persons within its jurisdiction, and failed to take measures within its powers which, judged reasonably, might have been expected to avoid that risk.⁴

a. Knowledge of the impacts, threats, and risks to older women in Switzerland from human-induced and, specifically, heat-related climate change⁵

For both Articles 2 and 8 ECHR, the Court requires the risk faced by persons in a State's jurisdiction to be real and immediate.⁶ The plain meaning of "real" is that risks exist in fact and are not imaginary, and relates to the probability or likelihood of the harm occurring.⁷ "Immediate," relates to temporal proximity, but if taken to mean "right now" in relation to the systemic duty to adopt and implement an appropriate legislative and administrative framework, this would erode positive obligations of their preventative nature and render virtually all climate cases that do not target operational duties prompting governmental *ad hoc* responses inactionable under the Court's jurisprudence merely because heatwaves cannot be predicted down to the minute.⁸ Judge Pinto de Albuquerque elaborated on this in his Dissenting Opinion in *Lopes de Sousa Fernandes*, and in line with *Brincat and Others v. Malta*:⁹ "[I]n situations of systemic or structural dysfunction which are known or ought to have been known to the authorities, the *Osman* test must be qualified, in so far as the requirement of 'immediate risk' must be scaled down to one of 'present risk'."¹⁰ This qualified test was employed by the Hoge Raad (NL) in *Urgenda*, where it held that "[t]he term 'immediate' does not refer to imminence in the sense that the risk must materialise within a short period of time, but rather that the risk in question is directly threatening the persons involved."¹¹ Immediacy thus refers to a reasonable timeframe within which harm can materialise, rendering it a test of "substantial or significant present" risk to affected people.¹² A State ought therefore to take proportionate measures against such risks, even if they may materialise gradually and over a longer period of time,¹³ such as those arising from climate change. In the following and to this end, we offer up-to-date evidence of the risks to older women in Switzerland from human-induced and, specifically, heat-related climate change. May the Court note that the following observations may also be relevant for assessing victim status for the purposes of Article 34 ECHR.¹⁴

Extreme heat is responsible for nearly 1% of all annual deaths worldwide.¹⁵ The human body's cooling system keeps core temperature constant within a safe range of 36.8°C +/-0.5°C, regardless of changes in ambient conditions.¹⁶ However, when heat is not efficiently dissipated – because the environmental conditions (heat

¹ E.g., *Brincat and Others v. Malta*, no. 60908/11, §102.

² Regarding Article 2 ECHR: *Öneryıldız v. Turkey* [GC] no. 48939/99, §§89-90. Regarding Article 8 ECHR: *Pavlov and Others v. Russia*, no. 31612/09, §77; *Cordella and Others v. Italy*, no. 54414/13, §§158-9; *Jugheli and Others v. Georgia*, no. 38342/05, §64; *Tătar v. Romania*, no. 67021/01, §88; *López Ostra v. Spain*, no. 16798/90, §51. In the context of dangerous activities, the scope of the positive obligations under Article 2 largely overlaps with the scope of positive obligations under Article 8: *Öneryıldız v. Turkey* [GC] no. 48939/99, §§90, 160; *Budayeva and Others v. Russia*, no. 15339/02, §133.

³ *Budayeva and Others v. Russia*, no. 15339/02, §129; *Kolyadenko and Others v. Russia*, nos. 17423/05, 20534/05, 20678/05, 23263/05, 24283/05, and 35673/05, §157; *Tătar v. Romania*, no. 67021/01, §88.

⁴ *Osman v. the United Kingdom*, no. 23452/94, §116; *Öneryıldız v. Turkey* [GC] no. 48939/99, §101.

⁵ Note that the following observations on the impacts, threats, and risks that older women in Switzerland endure due to climate change are also relevant (i) to establish victim status (Article 34 ECHR), see note 14 below, and to (ii) determine the applicability of Article 2 and 8 ECHR: In relation to the applicability of Article 2, see, e.g., *Brincat and Others v. Malta*, no. 60908/11, §80; *Öneryıldız v. Turkey* [GC] no. 48939/99, §71; *Budayeva and Others v. Russia*, no. 15339/02, §§130-131. In relation to the applicability of Article 8, see, e.g., *Cordella and Others v. Italy*, no. 54414/13, §157; *Tătar v. Romania*, no. 67021/01, §107.

⁶ *Osman v. the United Kingdom*, no. 23452/94, §116; *Öneryıldız v. Turkey* [GC] no. 48939/99, §101.

⁷ *Vladislava Stoyanova, Fault, Knowledge and Risk Within the Framework of Positive Obligations under the European Convention on Human Rights*, 33 *Leiden Journal of International Law* 601-620, 612-3 (2020).

⁸ Similarly, *Öneryıldız v. Turkey* [GC] no. 48939/99, §100.

⁹ *Brincat and Others v. Malta*, nos. 60908/11, 62110/11, 62129/11, 62312/11, and 62338/11, §82.

¹⁰ *Lopes de Sousa Fernandes v. Portugal*, no. 56080/13, Dissenting Opinion of Judge Pinto de Albuquerque, §91.

¹¹ Dutch Supreme Court, *Urgenda v. The Netherlands*, ECLI:NL:HR:2019:2007, 20 December 2019, §5.2.2.

¹² *Tătar v. Romania*, no. 67021/01, §107 ("risque sérieux et substantiel"); *Cordella and Others v. Italy*, no. 54414/13, §169 ("risques graves"); *Jugheli and Others v. Georgia*, no. 38342/05, §70; *Brincat and Others v. Malta*, nos. 60908/11, 62110/11, 62129/11, 62312/11, and 62338/11, §82.

¹³ *Cordella and Others v. Italy*, no. 54414/13, §158; *Jugheli and Others v. Georgia*, no. 38342/05, §77; *Öneryıldız v. Turkey* [GC] no. 48939/99, §§98-101.

¹⁴ Concerning direct victim status, see *Burden v. the United Kingdom* [GC], no. 13378/05, §§33-35; *Open Door and Dublin Well Women v. Ireland*, no. 14234/88, §44. The issue of victim status is intricately tied to the merits of the case: *Siliadin v. France*, no. 73316/01, §63; *Hirsi Jamaa and Others v. Italy* [GC], no. 27765/09, §111.

¹⁵ Qi Zhao, Yuming Guo, Tingting Ye, et al., Global, Regional, and National Burden of Mortality Associated with Non-Optimal Ambient Temperatures from 2000 to 2019, 5(7) *The Lancet Planetary Health* 415-25 (2021).

¹⁶ Daniel S. Moran, Abraham Shitzer & Kent B. Pandolf, A Physiological Strain Index to Evaluate Heat Stress, 275(1) *The American Journal of Physiology* 129-134 (1998).

stress) overwhelm the thermoregulatory system – core temperatures will rise, triggering dangerous physiological responses and pathways (i.e., heat strain) and potentially causing severe organ damage and eventually death.¹⁷ Common symptoms associated with heat are dehydration, dizziness, headache, and heat stroke.¹⁸ Exposure to heat worsens underlying cardiovascular, respiratory, and renal diseases, leading to increased morbidity risk (e.g., hospitalisations and emergency room visits).¹⁹ In Switzerland, recent extremely warm summers substantially increased mortality with nearly 1'000 excess deaths, accounting for 7% (2003) and 5.4% (2015) of the total mortality.²⁰ Between 2009 and 2017, heat in Switzerland was responsible for nearly 200 annual deaths, which equates to 0.3% of all-cause deaths.²¹ Recent evidence from Switzerland also suggests that heat is associated with increased risk of cardiovascular mortality, mental disorders, and suicide.²²

Current scientific evidence suggests that older women are most vulnerable to heat. The Intergovernmental Panel on Climate Change's (IPCC) most recent Sixth Assessment Report (AR6) on "Impacts, Adaptation and Vulnerabilities" clearly states that women and older adults are among the population subgroups most vulnerable to climate change.²³ Extreme heat and heatwaves can exceed older people's already compromised physiological adaptive capacity due to, first, limited evaporation, reduced sense of dehydration, slow blood flow to the skin, and altered cardiovascular function;²⁴ second, as people age, their weakened immune systems respond less effectively to environmental stressors and they are more likely to have comorbidities (mainly cardiovascular, respiratory, and mental disorders).²⁵ In Switzerland between 1969-2017, mortality caused by heat in adults aged 65 and older amounted to 87% of the total heat-related burden.²⁶ Prior studies in Switzerland also observed that mortality risk from heat was higher in the older population.²⁷ Importantly, heat-related mortality is expected to increase in Switzerland. An ongoing investigation estimates a five-fold increase in heat-related mortality in a 2°C world, given current population trends.²⁸ An increase from 1.5°C to 2°C would double heat-related mortality in Switzerland, from 240 to 570 annual deaths.²⁹

In contrast, evidence on potential sex-related differences in heat vulnerability in older adults is sparse. Experimental studies have focused mainly on young populations and have come to mixed conclusions about the effects of sex on the human thermoregulatory system.³⁰ However, recent epidemiological studies in Switzerland found that women are at higher risk of heat mortality than men. For example, Saucy et al. found that the risk of cardiovascular mortality associated with heat was four times greater in women than in men.³¹ Results from a study in the eight main Swiss cities also indicates that vulnerability to extreme heat is particularly pronounced in older women, as opposed to men of the same age range.³² This difference may be

¹⁷ Camilo Mora, Chelsie W.W. Counsell, Coral R. Bielecki, et al., Twenty-Seven Ways a Heat Wave Can Kill You, 10(11) *Circulation: Cardiovascular Quality and Outcomes* e004233 (2017); Jonathan R. Buzan & Matthew Huber, Moist Heat Stress on a Hotter Earth, 48(1) *Annual Review of Earth and Planetary Sciences* 623-55 (2020).

¹⁸ Mora et al., *supra* note 17.

¹⁹ Daniel Astrom, Bertil Forsberg & Joacim Roeklov, Heat Wave Impact on Morbidity and Mortality in the Elderly Population, 69(2) *Maturitas* 99-105 (2011); Hunter Green, Jennifer Bailey, Lara Schwartz, et al., Impact of Heat on Mortality and Morbidity in Low and Middle Income Countries, 171 *Environmental Research* 80-91 (2019); Carina Gronlund, Kyle Sullivan, Yonathan Kefelegn, et al., Climate Change and Temperature Extremes: A Review of Heat- and Cold-Related Morbidity and Mortality Concerns of Municipalities, 114 *Maturitas* 54-59 (2018).

²⁰ Leticia Grize, Anke Huss, Oliver Thommen, et al., Heat Wave 2003 and Mortality in Switzerland, 135(13-14) *Swiss Medical Weekly* 2200-5 (2005); Ana M. Vicedo-Cabrera, Martina S. Ragettli, Christian Schindler & Martin Röösli, Excess Mortality During the Warm Summer of 2015 in Switzerland, 146 *Swiss Medical Weekly* w14379 (2016).

²¹ Evan de Schrijver, Marvin Bundo, Martina S. Ragettli, et al., Nationwide Analysis of the Heat- and Cold-Related Mortality Trends in Switzerland between 1969 and 2017, 130(3) *Environmental Health Perspectives* 37001 (2022).

²² Bundo et al.'s study shows that risk of hospitalization due to mental disorders increased by 3% with every 10°C in Bern: Marvin Bundo, Evan de Schrijver, Andrea Federspiel, et al., Ambient Temperature and Mental Health Hospitalizations in Bern, Switzerland, 16(10) *PloS One* e0258302 (2021). Two studies by Schulte et al. and Saucy et al. conducted in Zurich and across the whole country estimated that the risk of cardiovascular mortality increases between 13% and 28% at extremely high temperatures, compared to 20°C: Apolline Saucy, Martina S. Ragettli, Danielle Viennet, et al., The Role of Extreme Temperature in Cause-Specific Acute Cardiovascular Mortality in Switzerland, 790 *Science of The Total Environment* 147958 (2021); Florian Schulte, Martin Röösli & Martina S. Ragettli, Heat-Related Cardiovascular Morbidity and Mortality in Switzerland: A Clinical Perspective, 151 *Swiss Medical Weekly* w30013 (2021).

²³ IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegria, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)] p. 1051-3 (2022).

²⁴ Glen P. Kenny, Jane Yardley, Candice Brown, et al., Heat Stress in Older Individuals and Patients with Common Chronic Diseases, 182(10) *Canadian Medical Association Journal* 1053-60 (2010).

²⁵ Bradley J. Layton, Wenhong Li, Jiacan Yuan, et al., Heatwaves, Medications, and Heat-Related Hospitalization in Older Medicare Beneficiaries with Chronic Conditions, 15(12) *PloS One* e0243665 (2020).

²⁶ de Schrijver et al., *supra* note 21.

²⁷ Martina S. Ragettli, Ana M. Vicedo-Cabrera, Christian Schindler, et al., Exploring the Association between Heat and Mortality in Switzerland between 1995 and 2013, 158 *Environmental Research* 703-9 (2017); Saucy et al., *supra* note 22.

²⁸ Evan de Schrijver, Sidharth Sivaraj, Christoph Raible, et al., Nationwide Projections of Heat and Cold-Related Mortality under Different Climate Change and Population Development Scenarios in Switzerland [in preparation].

²⁹ *Ibid.*

³⁰ Kate A. Wickham, Phillip J. Wallace & Stephen S. Cheung, Sex Differences in the Physiological Adaptations to Heat Acclimation, 121(2) *European Journal of Applied Physiology* 353-67 (2021); Ran Yanovich, Itay Ketko & Nisha Charkoudian, Sex Differences in Human Thermoregulation: Relevance for 2020 and Beyond, 35(3) *Physiology (Bethesda, Md.)* 177-84 (2020).

³¹ Saucy et al., *supra* note 22.

³² Ragettli et al., *supra* note 27.

due to a combination of factors, such as changes in reproductive hormones that negatively affect cardiovascular fitness and thermoregulatory responses, and broader gender-related roles and behaviours, including solitary living.³³ The latest research on heat-related mortality in Switzerland, from the summer of 2022, confirms this trend. This study, currently in preparation, found that 600 deaths due to heat occurred during this summer; nearly 50% of these deaths occurred in women aged 65 years and above, while men of the same age accounted for less than 40%.³⁴

Health risks are especially pronounced in Switzerland, where mean surface temperature increase (average 2012-2021 vs. 1871-1900) reached 2.4°C³⁵ – more than twice the mean global warming signal of 1.1°C.³⁶ This temperature trend is strongest in summer. The lowlands of Switzerland showed an increase from 1 to 3 hot days (Tmax ≥ 30°C) per year in the 1960s to an average of about 10 days per year today,³⁷ which is greater than the average increase for all land areas on Earth.³⁸ Over the course of the 21st century, the Swiss climate is projected to depart significantly from the conditions of the past and the present.³⁹ Mean temperature will very likely further increase in all regions and seasons, directly influencing temperature-related extreme events.⁴⁰ It is virtually certain that hot extremes will increase and become more frequent and persistent. Depending on the scenario, hottest summer days can increase by 5.4-6.1 °C (high emission scenario, RCP8.5) or 1.4-1.8 °C (low emission scenario, RCP2.6) by the end of the 21st century compared to today.⁴¹ Health-related temperature indices, such as hot days (Tmax ≥ 30°C), are projected to increase to more than 50 days (high emission scenario, RCP8.5) or more than 30 days (low emissions scenario, RCP2.6) per year by the end of the 21st century.⁴² Another health-relevant index are tropical nights (≥ 20 °C), which rarely occur under present-day conditions but are projected to rise to 30 days (high emission scenario, RCP8.5) or 1 to 10 days (low emissions scenario, RCP2.6) per year by the end of the 21st century.⁴³ In sum, the risks that heat and heatwaves pose to older women in Switzerland are real and substantial, directly traceable to anthropogenic climate change, and are materialising within a foreseeable and relatively short timeframe.

b. The scope of Parties' positive duties in the context of climate change mitigation

Whether a State has failed to live up to its positive duties depends on the scope of these duties. In *Budayeva*, the Court clarified that the scope of positive obligations depends, among other things, on the origin of the threat.⁴⁴ It considered that threats to human rights from natural disasters “do not call for the same extent of State involvement” as those “arising from dangerous activities of a man-made nature.”⁴⁵ Concerning climate change, this differentiation crumbles in the face of evidence from climate sciences demonstrating the anthropogenic nature of climate change and its harms. A recent international study showed that 37% of all deaths caused by heat in summer months can be attributed to human-induced climate change.⁴⁶ In Switzerland, the latest research shows that 60% of observed heat-related deaths in summer 2022 are attributable to human-induced climate change (360 deaths).⁴⁷ More importantly, nearly 90% of those who died were aged 65 years or older, and more women in this age group died than men (205 deaths in women >65 years vs. 125 in male counterparts).⁴⁸ Another ongoing investigation in the canton of Zurich identified 1'700 deaths caused by heat from human-induced climate change between 1969 and 2018, corresponding to 28% of observed heat-related mortality and 1.4% of all-cause deaths in the summers between 1969-2018.⁴⁹ Predictions of increasing heat and recurring calamity justify imposing the regular, more demanding positive

³³ Yvette van Steen, Anna-Maria Ntirladima, Rick Grobbee, et al., Sex Differences in Mortality after Heat Waves: Are Elderly Women at Higher Risk? 92(1) *International Archives of Occupational and Environmental Health* 37-48 (2019).

³⁴ Ana M. Vicedo-Cabrera, Evan de Schrijver, Dominik Schumacher, et al., The Footprint of Anthropogenic Climate Change on Heat-Related Deaths in Summer 2022 in Switzerland [in preparation].

³⁵ Federal Office for the Environment (FOEN) et al., Klimawandel in der Schweiz, p. 29 (2020), as updated on the webpage, available at <https://www.meteoschweiz.admin.ch/klima/klimawandel.html>.

³⁶ IPCC, Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)] p. 5 (2021).

³⁷ CH2018 – Climate Scenarios for Switzerland, Technical Report, National Centre for Climate Services, p. 39 (2018).

³⁸ Valérie Masson-Delmotte et al., *supra* note 36, p. 18.

³⁹ CH2018 – Climate Scenarios for Switzerland, Technical Report, National Centre for Climate Services, p. 271 (2018).

⁴⁰ *Id.*, p. 7.

⁴¹ *Id.*, p. 103.

⁴² *Id.*, p. 112.

⁴³ *Id.*, p. 114.

⁴⁴ *Budayeva and Others v. Russia*, no. 15339/02, §137.

⁴⁵ *Budayeva and Others v. Russia*, no. 15339/02, §174.

⁴⁶ Ana M. Vicedo-Cabrera, Noah Scovronick, Francesco Sera, et al., The Burden of Heat-Related Mortality Attributable to Recent Human-Induced Climate Change, 11(6) *Nature Climate Change* 492-500 (2021).

⁴⁷ Vicedo-Cabrera et al., *supra* note 34.

⁴⁸ *Ibid.*

⁴⁹ Rupert F. Stuart-Smith, Ana M. Vicedo-Cabrera, Sihan Li, et al., Quantifying Heat-Related Mortality Attributable to Human-Induced Climate Change [in preparation].

obligations upon States to adequately address the harms and threats caused by climate change.⁵⁰ Furthermore, heatwaves emanate from “dangerous activities of a man-made nature,”⁵¹ namely the emission of greenhouse gases (GHGs) through industrial activities. This makes heatwaves more controllable than naturally occurring disasters (i.e., without human influence) like earthquakes or volcanic eruptions, in the sense that human (in)action influences the recurrence rate of heatwaves.

The scope of positive obligations further depends on the extent to which the risk is susceptible to mitigation.⁵² When determining this extent, due regard should be paid to the legal landscape tasked with regulating such risks, namely the international climate law regime.⁵³ As we elaborate below, drawing on both human rights law and international environmental law, the relevant question is whether a State’s measures are aimed at and effectively contribute its fair share to prevent dangerous levels of climate change.⁵⁴ In the following, we narrowly focus on the normative pillars of ambition and progression but acknowledge that countries’ fair share of mitigation duties is determined by a much broader set of considerations, including widely-accepted principles of international environmental law.⁵⁵

With Article 2.1(a) in the Paris Agreement’s operative part, Parties committed to “holding the increase in the global average temperature to well below 2°C above pre-industrial levels” and “pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.” This temperature goal is to be achieved, among others, by *global peaking of GHG emissions as soon as possible*, and *rapid reductions thereafter* in accordance with best available science, so as to achieve net zero in 2050 (Article 4.1). Only in respect of developing countries did Parties recognise that peaking can take longer.⁵⁶

Parties’ mitigation efforts as set out in Article 4.1 are not merely to be informed by science but must be “in accordance with best available science.” The IPCC’s 2018 Special Report on Global Warming of 1.5°C (SR15) is a stark warning and serves as an urgent call to increase ambition and strengthen efforts to tackle climate change.⁵⁷ To limit global warming to 1.5°C with no or limited overshoot, IPCC SR15 states that global net anthropogenic CO₂ emissions must decline by about -45% (40-60% interquartile range) from 2010 levels by 2030.⁵⁸ The most recent report of Working Group III as part of AR6 shows that pathways that limit warming to 1.5°C (>50%) with no or limited overshoot must reach global net zero CO₂ emissions in the early 2050s⁵⁹ and “involve more rapid and deeper near-term GHG emissions reductions through to 2030.”⁶⁰

To operationalise Articles 2.1(a) and 4.1, parties are legally required to prepare, communicate, and maintain nationally determined contributions (NDCs) that contain domestic mitigation measures “with the aim of achieving the objectives of such contributions” (Article 4.2). NDCs follow the Agreement’s ambition cycle, such that each successive NDC “will represent a progression” and reflect a State’s “highest possible ambition” (Article 4.3). Article 4 subjects Parties to binding obligations of conduct (*due diligence*) in relation to mitigation⁶¹ and establishes a good faith expectation that Parties intend to achieve their contributions.⁶²

In 2016, Conference of Parties (COP) 22 already noted a significant mitigation shortfall based on the initial NDC submissions, stating that “much greater emission reduction efforts than those associated with the INDCs [initial NDCs] will be required in the period after 2025 and 2030”⁶³ to hold the temperature rise within the 1.5°C limit. The newest Emissions Gap Report by the United Nations Environment Programme (UNEP) shows that current policies will result in global warming of 2.8°C.⁶⁴ “To get on track for limiting global

⁵⁰ *Finogenov and Others v. Russia*, nos. 18299/03, 27311/03, §243; *Özel and Others v. Turkey*, no. 16816/03, §171.

⁵¹ *Budayeva and Others v. Russia*, no. 15339/02, §174.

⁵² *Budayeva and Others v. Russia*, no. 15339/02, §137.

⁵³ See Article 31.3(c) Vienna Convention of the Law of Treaties (VCLT), also referred to in *Naït-Liman v. Switzerland*, no. 51357/07, §174.

⁵⁴ Christina Voigt, *The Climate Change Dimension of Human Rights: Due Diligence and States’ Positive Obligations*, 13(0) *Journal of Human Rights and the Environment* 152-171 (2022).

⁵⁵ Lavanya Rajamani, Louise Jeffery, Niklas Höhne, et al., National “Fair Shares” in Reducing Greenhouse Gas Emissions Within the Principles Framework of International Environmental Law, 21(8) *Climate Policy* 983-1004 (2021).

⁵⁶ Paris Agreement, Article 4.1; Decision 1/CP.16, The Cancún Agreements, FCCC/CP/2020/7/Add.1 (March 15, 2011), para. 6.

⁵⁷ IPCC, Summary for Policymakers. In: *Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)] C.1, p.14 (2018).

⁵⁸ *Ibid.*

⁵⁹ IPCC, Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)] C.2, p. 27 (2022).

⁶⁰ *Ibid.*, C.2.2, p. 32.

⁶¹ Daniel Bodansky, *The Legal Character of the Paris Agreement*, 25(2) *RECIEL* 142-150, 146 (2016).

⁶² Lavanya Rajamani & Jacob Werksman, *The Legal Character and Operational Relevance of the Paris Agreement’s Temperature Goal*, 376 *Phil. Trans. R. Soc.* 1-14, 6 (2018).

⁶³ UNFCCC, *Aggregate Effect of the Intended Nationally Determined Contributions: Synthesis Report by the Secretariat FCCC/CP/2016/2*, para. 45.

⁶⁴ UNEP, *Emissions Gap Report 2022: The Closing Window* (Nairobi 2022), p. xvi.

warming to 1.5°C, global annual GHG emissions must be reduced by 45 per cent compared with emissions projections under policies currently in place” (i.e., not compared to 1990) “*in just eight years*, and they must continue to decline rapidly after 2030, to avoid exhausting the limited remaining atmospheric carbon budget.”⁶⁵ In 2021, as part of the Glasgow Pact at COP26, this dire situation was recognised, as States were called upon to “revisit and strengthen” their 2030 targets by the end of 2022.⁶⁶

2. An assessment of Switzerland’s actions in light of its positive obligations

Though Switzerland was the first country worldwide to proclaim that it would introduce a CO₂-tax to halve emissions by 2025 and contribute to tackling climate change head-on, in the 1990s at COP2,⁶⁷ these promises were not fulfilled, and the issue has become increasingly contentious since. The Swiss CO₂-Act of 2011 (still in force) is committed to contributing to a temperature goal of “less than 2 degrees Celsius” (Article 1(1)). The Paris Agreement’s temperature limit of Article 2.1(a), although binding for Switzerland since 2017,⁶⁸ has not since been incorporated into the law. This is despite the fact that Switzerland has joined the High Ambition Coalition (HAC) in 2014 and is still a member. HAC “confirms the need for the most ambitious efforts within this decade to enable us to limit global warming to 1.5°C.”⁶⁹ Its members are committed “to step up our ambition by 2020” and “increase[...] short term action,”⁷⁰ and underline “the need to halve global emissions by 2030”⁷¹ – statements signed by the Federal Council but which it has not yet acted upon.

Article 3(1) CO₂-Act specifies the temperature goal as reduction targets, determining that by 2020, domestic GHG emissions “must be reduced overall by 20 per cent” from 1990 levels. This goal was already out of tune with the best available science when it was introduced in 2011. In 2007, the IPCC found that, to be in line with the (now outdated) 2°C degree target, governments would need to reduce their 1990 emission level by -25 to -40%.⁷² This, among other reasons, is why the Hoge Raad in *Urgenda* ordered the Dutch Government to reduce its GHG emissions by the end of 2020 by at least -25%, compared to 1990.⁷³ Over the past decade, the question of how to curb climate change has been at the forefront of political debates in Switzerland. Most recently, in 2021, the Swiss people rejected the proposed Third CO₂-Act, which would have filled the dangerous policy gap post-2020. Since 2021, Article 3(1^{bis}) of the CO₂-Act sets a new interim goal to reduce GHG emissions from 1990 levels by -1.5% per year until 2024, levelling out at -26% by 2024.

On 28 August 2019, the Federal Council committed to reducing GHG emissions to net zero by 2050; this was later embedded in the (non-binding) long-term Climate Strategy.⁷⁴ On 16 September 2022, the Federal Council submitted to Parliament a draft amendment to the CO₂-Act, applicable between 2025-2030. On 30 September 2022, both chambers of the Swiss Parliament agreed to an indirect counter proposal to the Glacier Initiative, with a distinct Climate Framework Act, applicable between 2031-2050. As envisaged by the draft amendment, the proposed Climate Framework Act, and the long-term Climate Strategy, GHG emissions should be reduced by -50% by 2030,⁷⁵ by -35% on average for 2021-2030,⁷⁶ and reach net zero by 2050.⁷⁷ The Government assumes these laws will come into force in 2024, but opposing referenda have been announced.

Switzerland’s focus on achieving its climate targets largely depends on reducing GHG emissions abroad. The current CO₂-Act states that at least 75% of its incremental -1.5% reduction for 2021-2024 (not the -20% reduction for 2020) shall be achieved through domestic measures (Article 3(1^{ter})). The proposed amendment of the CO₂-Act (applicable after 2024), though it aims at a -50% reduction by 2030, only foresees a domestic reduction of -34% by 2030 (corresponding to a 66% share of domestic GHG emissions and 33% GHG emissions abroad, of the -50%).⁷⁸ The proposed Climate Framework Act (applicable after 2030) loosens this further, by requiring that reduction must be achieved “as far as possible [...] through domestic emission reductions” (Article 3(4)). Indeed, Parliament acknowledged that “a much higher foreign share is likely to be necessary”⁷⁹ to achieve the Paris limits. The share of foreign GHG reductions, though already high, ought thus to progressively increase over the years.

⁶⁵ UNEP, Emissions Gap Report 2022: The Closing Window (Nairobi 2022), p. xvi (emphasis added).

⁶⁶ Decision 1/CMA.3, Glasgow Climate Pact, FCCC/PA/CMA/2021/10/Add.1, recital 29.

⁶⁷ Elia Blülle, Das verlorene Jahrzehnt: Wie die Schweizer Klimapolitik durchstartete – und abstürzte, *Die Republik*, 25 May 2021.

⁶⁸ Switzerland ratified the Paris Agreement on 6 October 2017.

⁶⁹ High Ambition Coalition (HAC), COP26 Leaders’ Statement, 2 November 2021, para. 1.

⁷⁰ High Ambition Coalition (HAC), Statement on Stepping up Climate Ambition, 17 December 2018, para. 2.

⁷¹ High Ambition Coalition (HAC), COP26 Leaders’ Statement, 2 November 2021, para. 7.

⁷² IPCC, *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, L.A. Meyer (eds)], p. 776 (2007).

⁷³ Dutch Supreme Court, *Urgenda v. The Netherlands*, ECLI:NL:HR:2019:2007, 20 December 2019, §§7.1 ff.

⁷⁴ Swiss Federal Council, Switzerland’s Long-Term Climate Strategy, 27 January 2021, p. 4.

⁷⁵ Article 3(1)(a) of the proposed amendment to the CO₂-Act, BBl 2022 2652.

⁷⁶ Article 3(1)(b) of the proposed amendment to the CO₂-Act, BBl 2022 2652.

⁷⁷ Article 3(1) of the proposed Climate Framework Act, BBl 2022 2403.

⁷⁸ Botschaft zur Revision des CO₂-Gesetzes für die Zeit nach 2024, BBl 2022 2651, p. 25.

⁷⁹ AS 2022 262; BBl 2021 2252, 2254, p. 22.

Reducing emissions abroad made sense under the Kyoto Protocol, marked by limited membership and an absence of mitigation duties for developing countries.⁸⁰ However, the Paris Agreement is 194 Parties strong, enjoying near-universal application, and commits all members to reduce their emissions. Switzerland's efforts to reduce its GHG emissions through projects abroad are futile because these projects are often already underway in developing countries and their potential is limited because developing countries must comply with their own mitigation duties. More importantly, reduction projects abroad are notorious for lack of traceability and verifiability, and they are much rarer and less successful than anticipated.⁸¹ Thus far, Switzerland realised only one foreign project to reduce GHG emissions under the Paris regime.⁸² GHG reductions in high-emitting developed countries like Switzerland, although sorely needed, are, as a consequence, consciously delayed, which seriously jeopardises the chance the Paris Agreement limits will be met. With these targets in place, Switzerland is on a trajectory to at least +3°C by 2100,⁸³ clearly and significantly exceeding the Paris Agreement limits, as illustrated in this figure:

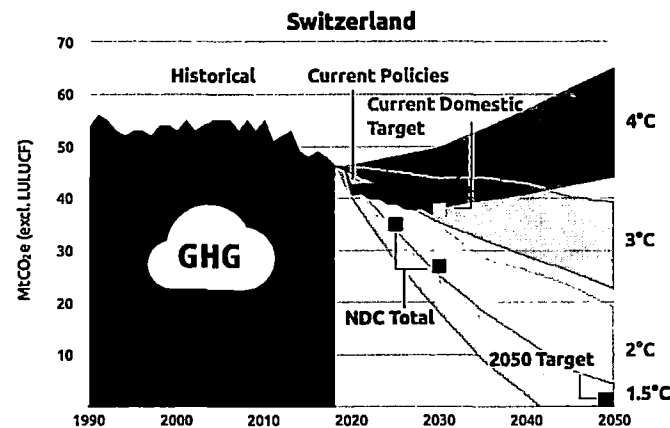


Figure 1. Switzerland current policies and targets vs. temperature ranges for domestic emissions reductions

Source: *Climate Action Tracker, A 1.5°C Compatible Switzerland (2021)*, p. 4.

Switzerland's policies stand in stark contrast to scientific assessments of downscaled pathways for the country that are compatible with the 1.5°C limit, even with the narrow view of ambition and progression that this intervention takes.⁸⁴ These assessments show that domestic reductions of at least -63% from 1990 levels are necessary by 2030.⁸⁵ An example of a 1.5°C compatible emissions reductions policy is the UK's NDC, which commits it to reducing GHG emissions by -68% from 1990 levels, to be met exclusively through domestic reductions.⁸⁶ Similarly, following *Neubauer and Others v. Germany*,⁸⁷ Germany had to raise its 2030 emissions target from -55 to -65% of 1990 levels, to contribute its share to avert dangerous global warming.⁸⁸

Prior to this case, Switzerland had no plan that would effectively contribute to mitigating global warming, and it still has no such plan today; the chances it will meet its ambitions are diminishing because the window of opportunity is closing, at the expense of much-needed protection of especially vulnerable groups. Since the Paris Agreement was adopted, Switzerland has made no progress on its climate targets and has set no binding climate targets post 2024, notably not for accepted reference years 2030 and 2050, despite NDC requirements for progression (Article 4.3 Paris Agreement), the Glasgow Climate Pact for more stringent interim targets, and Switzerland's HAC membership. In short, Switzerland's climate policy ambition seems incoherent and structurally flawed, which is central to assessing compliance with its positive obligations under the ECHR.⁸⁹

There is an even greater gap in policy implementation. Switzerland's climate policy has continuously been off track to achieve its already low mitigation targets.⁹⁰ In 2019, Switzerland was projected to miss its -20% reduction target for 2020, achieving only -14%, and acknowledged that "additional measures" are necessary.⁹¹ Post-2020, Switzerland manifestly missed the target, at a surprising -19%, thanks to the pandemic and a

⁸⁰ Kyoto Protocol to the UNFCCC, adopted at COP3 in Kyoto, Japan, on 11 December 1997, Article 3 (mitigation duties for Annex I Parties only).

⁸¹ Hiroko Tabuchi, *Switzerland Is Paying Poorer Nations to Cut Emissions on Its Behalf*, *NY Times*, 7 November 2022.

⁸² Namely the Tuki-Wasu project under the (abandoned) Climate Cent Foundation, available at <https://www.klimarappen.ch/de/Programm-Tuki-Wasi-Peru.46.html>.

⁸³ Climate Analytics, *A 1.5°C Compatible Switzerland (2021)*, p. 3.

⁸⁴ See p. 4 above, and reference especially to Rajamani et al., *supra* note 55.

⁸⁵ Climate Analytics, *1.5°C Pathway Finder, Switzerland*, available at <https://1p5ndc-pathways.climateanalytics.org/countries/switzerland/>.

⁸⁶ United Kingdom of Great Britain and Northern Ireland's Nationally Determined Contribution, September 2022, pp. 1, 37.

⁸⁷ German Federal Constitutional Court, *Neubauer and Others v. Germany*, 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 29 April 2021.

⁸⁸ German Federal Climate Change Act of 12 December 2019 (Federal Law Gazette I, p. 2513), Section 3(1)1.

⁸⁹ The Court has acknowledged that a discordance between the social reality and the law and the coherence of the administrative and legal practices within the domestic system (or lack thereof) are relevant for assessing the scope of positive obligations: *Hämäläinen v. Finland*, no. 37359/09, §66.

⁹⁰ Emissions Gap Report 2022: *The Closing Window* (Nairobi 2022), p. xvi.

⁹¹ Federal Council, *Switzerland's Long-Term Climate Strategy*, 27 January 2021, p. 11.

decline in heating during the exceptionally warm 2020 winter.⁹² Switzerland significantly lags behind its neighbouring countries in this respect. In 2020, total CO₂ emissions in Switzerland (including both territorial and grey emissions) were at 103.14 Mio t CO₂-eq, or 11.9 t CO₂-eq per capita.⁹³ Compared to 2000, Switzerland only reduced its total CO₂-eq emissions by -12.5%, which starkly contrasts to the -24% reduction that EU-27 countries achieved over the same period.⁹⁴ Switzerland's failure to meet its own 2020 target is one in a series of previous failures. A decade earlier, Switzerland similarly missed its 2010 target of reducing GHG emissions by -10%, compared to 1990 levels,⁹⁵ reaching a reduction of -3.1%.⁹⁶ Implementation is at even higher risk today. It is highly unlikely that current policy instruments will be sufficient to achieve domestic targets, much less to achieve the more ambitious NDCs⁹⁷ – a fact that the Swiss Academy of Sciences (SCNAT) and its Forum for Climate and Global Change (ProClim) have recently pointed out, too.⁹⁸ For example, Switzerland aims to reduce GHG emissions by -10% from 2024-2025 with the same measures in place. If the proposed amendment and law came into force in 2024, Switzerland would have a meagre six years left to reach the -50% limit, without more effective and stringent measures, but relying on essentially the same measures that have proven to be insufficient.⁹⁹ Such ineffective and lenient approaches are relevant in the context of States' positive obligations, and were recently criticised by the Court in *Pavlov*.¹⁰⁰

These issues are especially pronounced due to the urgency of global warming measures. To limit global warming to 1.5°C with a 50% likelihood, the remaining global CO₂ budget (starting from 1 January 2020) comprises 500 Gt CO₂, which translates into a remaining budget of 555 Mio t CO₂ for Switzerland (ranging from 330 Mio t CO₂ for a 17% likelihood to 990 Mio t CO₂ for a 83% likelihood).¹⁰¹ With the same measures in place, Switzerland's CO₂ emissions will resemble current levels (2019 level: 36.9 Mio t CO₂), meaning its remaining emissions budget will be depleted in 2035 (2028-2046). Given this regulatory urgency, Switzerland could introduce efficient and effective policy measures by combining regulatory standards (positive ones, e.g., increased share of e-cars, and negative ones, e.g., taxes on fossil-based mobility)¹⁰² with incentive-based measures, and significantly increase public investment in new technologies, as Sweden, the Netherlands, Denmark, and the UK have done.¹⁰³ However, Switzerland's priorities seem to lie elsewhere. For example, the country is expecting an energy shortage this winter, and the Federal Council aims to fill this gap by using gas reserve power plants.¹⁰⁴ Such short-term solutions cause dangerous lock-ins of GHG emissions and side-line climate policy, when climate action is sorely needed and the climate crisis should be addressed with the same sense of urgency.¹⁰⁵ As the IPCC stated, "[t]he magnitude and rate of climate change and associated risks *depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming*."¹⁰⁶

3. Limitations on States' positive duties to protect against impacts, threats, and risks of climate change

In determining States' positive duties to protect against climate change harms, and their implementation (or lack thereof), "regard must be had to the fair balance that has to be struck between the competing interests of the individual and of the community as a whole" and to States' margin of appreciation.¹⁰⁷

As the ones entrusted with the "primary responsibility to secure rights," States enjoy a certain margin of appreciation in interpreting and applying ECHR rights, while still being in compliance with the Convention.¹⁰⁸ The primary responsibility of State Parties does not mean the Court is banned from reviewing state action or

⁹² Federal Office for the Environment (FOEN), Switzerland's Greenhouse Gas Inventory 1990–2020, submitted to the UNFCCC, April 2022, p. 61.

⁹³ Federal Office for the Environment (FOEN), Treibhausgas-Fussabdruck 2000–2020, 29 September 2022.

⁹⁴ Pierre Friedlingstein et al., Global Carbon Budget 2022, 14 *Earth Syst. Sci. Data* 4811–4900 (2022).

⁹⁵ Federal Act of 8 October 1999 on the Reduction of CO₂ Emissions (CO₂-Act), Article 2(1).

⁹⁶ That is, 51'901 kt CO₂ eq in 2010/2012 compared to 53'566 kt CO₂ eq in 1990: Federal Office for the Environment (FOEN), Switzerland's Greenhouse Gas Inventory 1990–2020, submitted to the UNFCCC, April 2022, p. 16.

⁹⁷ Marc Vielle & Philippe Thalmann, Updated Emissions Scenarios Without Measures, 1990–2035, Report for FOEN, Lausanne, 12 October 2017.

⁹⁸ Swiss Academy of Sciences and Forum for Climate and Global Change, Fortschritte und Defizite des revidierten CO₂-Gesetzes (2020), p. 1.

⁹⁹ Swiss Federal Council, Klimapolitik: Bundesrat verabschiedet Botschaft zum revidierten CO₂-Gesetz, 16 September 2022.

¹⁰⁰ By not putting into effect "more severe sanctions, such as the closure or suspension of operations" (*Pavlov and Others v. Russia*, no. 31612/09, §87).

¹⁰¹ Assuming that the Swiss population represents 0.11% of the global population throughout the 21st century and that allocation is split accordingly.

¹⁰² OECD, Les taxes liées à l'environnement dans les pays de l'OCDE: Problèmes et stratégies (OCDE, Paris 2001); Karin Ingold, Network Structures Within Policy Processes: Coalitions, Power, and Brokerage in Swiss Climate Policy, 39(3) *Policy Studies Journal* 435–459 (2011).

¹⁰³ Germanwatch, Climate Change Performance Index 2023, available at <https://www.germanwatch.org/en/87632>.

¹⁰⁴ Swiss Federal Council, Energie: Bundesrat startet Vernehmlassung zur Winterreserververordnung, 19 October 2022.

¹⁰⁵ Recognized in Decision I/CMA.3, Glasgow Climate Pact, FCCC/PA/CMA/2021/10/Add.1 (8 March 2022), recital 10, p. 1.

¹⁰⁶ IPCC, Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)] B.4, p. 14 (2022) (emphasis added).

¹⁰⁷ *Greenpeace E.V. and Others v. Germany* (dec.), no. 18215/06; *X, Y and Z v. UK*, no. 21830/93, §41; *Christine Goodwin v. UK*, no. 28957/95, §72.

¹⁰⁸ *Jugheli and Others v. Georgia*, no. 38342/05, §64; *Cordella and Others v. Italy*, no. 54414/13, §158; *López Ostra v. Spain*, no. 16798/90, §51. See Protocol 15 amending the ECHR, Strasbourg, 24. June 2013, Article 1. However, reference to subsidiarity and the margin of appreciation codifies the Court's existing jurisprudence: Explanatory Report to Protocol No. 15, para. 7.

inaction, neither does it narrow the well-established living instrument doctrine of the Court to interpret the Convention in a dynamic fashion, taking into account present-day conditions, to ensure effective protection of the rights guaranteed under the ECHR.¹⁰⁹

The margin of appreciation depends on several factors, including the nature of the issues, the seriousness of the interests at stake, and the existence of a European consensus.¹¹⁰ The margin tends to be restricted where a particularly important facet of someone's existence or identity is at stake.¹¹¹ Since heatwaves manifest across Switzerland, most people cannot escape them, especially older people who suffer from compromised health, special vulnerability to heat, and who have limited resources (i.e., information, finances, and support).¹¹² For this population, heatwaves do not manifest as a mere unpleasant nuisance but they seriously threaten their existence (and have manifestly done so in the past).¹¹³ The issue at stake is serious and goes to the core of their identity and existence,¹¹⁴ pointing to a narrow margin of appreciation.

Distinctively with a view to positive obligations in the context of environmental matters, a State's choice of means to secure compliance with Article 8 ECHR falls within its margin of appreciation, as there are different ways of ensuring respect for private and family life.¹¹⁵ The appropriateness¹¹⁶ of said means to bring about compliance, however, still falls under the purview of the Court. For example, if the means did not achieve the expected results, the Court takes this as an indication of lack of due diligence.¹¹⁷ In this sense, the violation of national environmental quality thresholds entails a breach of Article 8 ECHR.¹¹⁸ Similarly, in the case of environmental pollution, measures taken by the authorities that do not have a significant effect on reducing industrial emissions or concentrations of harmful substances in the atmospheric air, indicate insufficiency and a lack of a State's due diligence, in which case the Court may find a violation of the State's positive obligations under Article 8 ECHR.¹¹⁹ Finally, delay in ensuring effective protection of Convention rights, i.e., "the protracted inability of the [...] authorities to ensure the proper functioning"¹²⁰ of their chosen means to ensure compliance, may result in their infringement.

The above analysis has shown that there are strong indices for Switzerland's inability to meet both internationally agreed and domestic thresholds, for the lack of effectiveness and sufficiency of its measures, and for structural delays. These are not isolated omissions but a broader governmental failure that "goes beyond an error of judgement or carelessness, in that the authorities in question, fully realising the likely consequences and disregarding the powers vested in them, failed to take measures that were necessary and sufficient to avert the risks inherent in a dangerous activity."¹²¹ It is respectfully submitted that, given the case for effective reductions in Switzerland is unconvincing and unlikely, this Court should review the appropriateness of Switzerland's measures to provide effective protection against threats of climate change.

In the context of Article 8 ECHR, the Court also¹²² engages in a procedural review to find that a State has exceeded its discretionary power when it fails to strike a fair balance between the interests of the individual and of the community as a whole.¹²³ If the balance struck by the national authorities turns out to be "unsatisfactory, in particular because the importance or the scope of one of the fundamental rights at stake was not duly considered, the margin of appreciation accorded to the decisions of the national courts will be a narrow one."¹²⁴ To this end, the Court examines whether the decision-making process leading to an alleged violation (parliamentary, administrative, or judicial)¹²⁵ was fair and afforded due respect to the interests of

¹⁰⁹ *Tyrer v. UK*, no. 5856/72, §31. In *Wemhoff v. Germany*, the Court referred to the Convention as "a law-making treaty" (no. 2122/64, §8).

¹¹⁰ *Stand Lobben and Others v. Norway*, no. 37283/13, §211; *S. and Marper v. UK*, nos. 30562/04 and 30566/04, §102.

¹¹¹ *Evans v. UK*, 6339/05, §77. This is all the more so with a view to particularly vulnerable groups in society who may be subject to, e.g., legislative stereotyping: *Abdulaziz, Cabales and Balkandali v. UK*, nos. 9214/80, 9473/81, 9474/81, §78; *Shtukurov v. Russia*, no. 44009/05, §95.

¹¹² David Filiberto, Elaine Wethington, Karl Pillemer, et al., *Older People and Climate Change: Vulnerability and Health Effects*, 33 *Generations* 19-25 (2009); Janet L. Gamble, Bradford J. Hurley, Peter A. Schultz, et al. *Climate Change and Older Americans*, 121(1) *Environmental Health Perspectives* 15-22 (2013).

¹¹³ See above Section herein, 1.a., pp. 1-3.

¹¹⁴ *Stand Lobben and Others v. Norway*, no. 37283/13, §211.

¹¹⁵ *Fadeyeva v. Russia*, no. 55723/00, §124.

¹¹⁶ *Supra* note 2.

¹¹⁷ *Fadeyeva v. Russia*, no. 55723/00, §§126-8; *Powell and Rayner v. UK*, no. 9310/81. Note, however, that due diligence duties also exist independent of the effects of measures.

¹¹⁸ *Fadeyeva v. Russia*, no. 55723/00, §§83-4; *Giacomelli v. Italy*, no. 59909/00, §93; *López Ostra v. Spain*, no. 16798/90, §49. This is also the case for noise thresholds: *Dées v. Hungary*, no. 2345/06, §23; *Oluić v. Croatia*, no. 61260/08, §§48-66; *Moreno Gómez v. Spain*, no. 4143/02, §§57-63.

¹¹⁹ *Pavlov and Others v. Russia*, no. 31612/09, §§86-91.

¹²⁰ *Di Sarno and Others v. Switzerland*, no. 30765/08, §112.

¹²¹ *Jugheli and Others v. Georgia*, no. 38342/05, §76.

¹²² The procedural rationality review ought therefore not be a substitute for substantive rationality review, but compensatory: Patricia Popelier, *Procedural Rationality Review after Animal Defenders International: A Constructively Critical Approach*, 15 *EuConst* 272-293, 283 (2019).

¹²³ *Fadeyeva v. Russia*, no. 55723/00, §128; *Jugheli and Others v. Georgia*, no. 38342/05, §64; *Cordella and Others v. Italy*, no. 54414/13, §158; *López Ostra v. Spain*, no. 16798/90, §51; *Greenpeace E.V. and Others v. Germany* (dec.), no. 18215/06, 12 May 2009.

¹²⁴ *Aksu v. Turkey*, nos. 4149/04, 41029/4, §67. See also *Jugheli and Others v. Georgia*, no. 38342/05, §76.

¹²⁵ *Animal Defenders International v. UK*, no. 48876/08, §108.

affected persons.¹²⁶ This requires that the affected persons were involved in the decision-making process¹²⁷ and that the competent authorities performed a proportionality assessment of the competing interests at stake and gave consideration to the relevant rights of the affected persons.¹²⁸ As part of our assessment of access to justice (below), we show that the courts have not carried out a substantive balance of interests.

Distinctively with a view to this procedural aspect of Article 8 ECHR in the context of alleged legislative omissions, the interests and rights of older women, and vulnerable groups more generally, have not been considered or reviewed by the Swiss Legislature either. In the dispatches that the Federal Council submits to the Federal Assembly for approval of draft amendments to the law or new draft acts, the Council provides explanatory background and makes transparent its scope and breadth of review. These contain a review of constitutionality, and while issues of constitutional order (concerning Federal and Cantonal competency) and economic freedom are assessed,¹²⁹ the rights and interests of older women remain unidentified and unaddressed, and are consequently subject to no balancing test vis-à-vis community interests. Parliament therefore never made a “reasoned and thoughtful assessment”¹³⁰ of its Convention obligations. And while the result of said assessment could arguably be seen to fall within the margin of appreciation, since States are typically better placed to evaluate local needs and conditions,¹³¹ *whether* and *how* this process takes place is subject to review by this Court.¹³² Switzerland’s actions (or lack thereof) starkly contrast with its self-reported “other contextual aspirations and priorities acknowledged when joining the Paris Agreement,” namely: “Switzerland fully subscribes to the view that Parties should, when taking action to address climate change, respect, promote, and consider their respective human rights obligations, including due consideration for gender equality and gender sensitive policies, intergenerational equity, and the needs of particularly vulnerable groups.”¹³³ In addition to informed debate, the Court also looks for proof in parliamentary debates, consultation papers, and scientific reports that the State’s decision was based on evidence.¹³⁴ In this respect, it is notable that Switzerland has not conducted a study on the necessary level of ambition and fair share of reduction targets and pathways, nor did it set up a comprehensive periodic reviewing cycle of measures and interim targets.¹³⁵

4. Access to justice: Applicability and merits of Article 6 ECHR in climate change cases

Concerning both applicability and merits, this case raises complex, yet foundational questions regarding access to justice that invite the Court to further develop and refine its basic principles governing Article 6.

Applicability of Article 6: Compared to regular environmental threats, climate change is an extraordinary phenomenon characterised by its global nature, its exponential increase, the danger of tipping points, and the seriousness and irreversibility of threats. It is highly likely that sooner or later all people will be affected by climate change in some way, but as shown above, older women are already affected and will be affected even more in the future, much earlier and much more severely than other persons. As the Convention is a living instrument,¹³⁶ the requirements of Article 6 ECHR must be interpreted in light of these distinct particularities of climate change and its effects, in particular by further evolving the principles on individuals’ access to justice as laid down in *Taşkın* and *Okay*.¹³⁷ Here, the connection to the procedural aspect of Article 8 ECHR should be taken into account. As the Court has stressed in the past, access to justice must also be granted with respect to “complex issues of environmental and economic policy”, in as much as “the individuals concerned must also be able to appeal to the courts against any decision, act or omission where they consider that their interests or their comments have not been given sufficient weight in the decision-making process.”¹³⁸

In the case at hand, the civil limb of Article 6 is applicable (Article 10 of the Swiss Constitution, reflecting Articles 2 and 8 ECHR).¹³⁹ Further, the dispute qualifies as concrete, genuine, and serious. As part of its commitments under the international climate regime, Switzerland recognises that GHG emissions must be drastically reduced. It was clear many years before this dispute that this can only be achieved through a

¹²⁶ *Buckley v. UK*, no. 20348/92, §76; *Tanda-Muzinga v. France*, no. 2260/10, §68; *W. v. UK*, no. 9749/82, §65; *T.C. v. Italy*, no. 54032/18, §57.

¹²⁷ *Lazoriva v. Ukraine*, no. 6878/14, §63.

¹²⁸ *Liebscher v. Austria*, no. 5434/17, §63; *M.A. v. Denmark*, 6697/18, §149.

¹²⁹ Federal Council Dispatch on the Total Revision of the CO₂ Act after 2020, BBI 2018 247, 368; Federal Council Dispatch on Swiss Climate Policy after 2012, BBI 2009 7433, 7512-3.

¹³⁰ Robert Spano, *Universality or Diversity of Human Rights? Strasbourg in the Age of Subsidiarity*, 14 *HRLR* 487-502, 491 (2014).

¹³¹ *S.A.S. v. France*, no. 43835/11, §129.

¹³² *Hirst v. UK*, no. 74025/01, §79; *Animal Defenders International v. UK*, no. 48876/08, §116; *Dickson v. UK* [GC], no. 44362/04, §83.

¹³³ Switzerland’s information necessary for clarity, transparency and understanding in accordance with decision 1/CP.21 of its updated and enhanced nationally determined contribution (NDC) under the Paris Agreement (2021–2030), 9 December 2020, p. 6.

¹³⁴ *Giacomelli v. Italy*, no. 59909/00, §83.

¹³⁵ See, e.g., Interpellation 18.4077. This is quite unlike the situation in *Luginbühl v. Switzerland*, no. 42756/02.

¹³⁶ *Tyrer v. UK*, no. 5856/72, §31.

¹³⁷ *Taşkın and Others v. Turkey*, no. 46117/99, §119; *Okay and Others v. Turkey*, no. 36220/97, §§61-69.

¹³⁸ *Taşkın and Others v. Turkey*, no. 46117/99, §119; ref. to *mutatis mutandis*, *Hatton and Others v. UK*, no. 36022/97, §127; see also Framework Principles on Human Rights and the Environment, A/HRC/37/59 (2018), principle 10.

¹³⁹ *Bentham v. The Netherlands*, no. 8848/80, §32; *Zander v. Sweden*, no. 14282/88, §22.

comprehensive and coherent set of preparative administrative and subsequent legislative measures. We invite the Court to consider that in the present case, with its particularities with respect to climate change, the effective protection of civil rights is, without alternative, crucially dependent on the actions of the law-preparing administration and the legislative authorities.

Isolated individual measures are not expedient. Effective protection, in the context of climate change, means Switzerland has to do everything in its power to prevent further and even more intense heat and heat waves and to avoid irreversible harm, in line with the precautionary principle. Switzerland has discretionary power with regard to the type of measures taken. However, the range of measures, as a whole, must be appropriate to contribute to effective protection.¹⁴⁰ The question of whether Switzerland is doing enough to protect the rights of particularly vulnerable and concretely affected persons, within its means and after weighing various interests, is not a political but a legal question that is justiciable and should be answered by domestic courts.¹⁴¹

If a domestic court were to find that Switzerland's efforts are insufficient, this would require it to adapt and strengthen its (legislative) measures. According to the Court's practice, the result of the domestic proceedings must be directly decisive for the right in question. We invite the Court to further develop the interpretation of this criterion in light of the characteristics of (legislative) omissions and the specifics of climate change (*supra*), such that affected persons are not deprived of the chance to assert their rights before a domestic court. Unlike the situation in *Athanassoglou and Balmer-Schafroth*,¹⁴² the connection is neither tenuous, nor remote, as the threat and the need for action are real, scientifically clearly predictable, and validated. For about two decades already, hesitation and omissions of the Swiss authorities have delayed necessary protective action, even though applicants already suffer from temperature rise and there is an even bigger risk of severe damage to life and physical integrity in the future.¹⁴³ This risk affects the applicants personally, and qualifies as serious, specific, and imminent. The fact that the effective protection of life and physical integrity of the applicants additionally depends on the efforts of the other States, does not release Switzerland from its obligation to do everything in its power to prevent irreversible and exponential heat increases and thus violation and further endangerment of the rights of these particularly vulnerable persons.¹⁴⁴

Merits with respect to Article 6: Access to a court may be subject to limitations, and the member State has a certain margin of appreciation. Limitations need to pursue a legitimate aim and be proportionate; they must not restrict or reduce access in such a way or to such an extent that the very essence of the right is impaired.¹⁴⁵ Article 25a of the Federal Act on Administrative Procedure seeks to exclude *acciones populares* by requiring an "interest worthy of protection" (i.e., legitimate interest). As such, it is compatible with Article 6 ECHR. According to the practice of the Swiss courts, a legitimate interest in the sense of Article 25a requires a special, close relationship to the dispute that stands out from that of the general public. This is recognised in particular if doing so "is necessary to ensure sufficient protection of fundamental rights."¹⁴⁶ Based on Article 25a, applicants have the right to contest administrative, judicial, or legislative inactivity and omissions.¹⁴⁷ The question arises whether, in the case at hand, these requirements were applied in an arbitrary and manifestly unreasonable way, therefore impairing the very essence of the right and thwarting access to justice. The Federal Administrative Court assumed that the KlimaSeniorinnen, and older women in general, were not particularly affected.¹⁴⁸ The Federal Court held that they were not yet affected to a sufficient degree and that there was still time to address the problem, which concerned the whole population.¹⁴⁹ Both arguments are to be questioned on the basis of the best available scientific evidence, as shown above.¹⁵⁰ The right to life and physical integrity of the complainants are already now and even more in the future particularly affected by increasingly frequent and severe heat waves. The fact that there is also a general public interest in combating climate change should not alter this finding.¹⁵¹ In denying a legitimate interest, the Administrative and the Federal Court refused to fully and substantively evaluate the legal question (violation of the duty to protect arising from Article 10 of the Swiss Constitution and Articles 2 and 8 ECHR). But the right to access to a court and to a fair hearing requires that the judicial remedy is effective. If this is not the case, applicants have no available remedy that would enable them to assert their civil rights according to Article 6.

¹⁴⁰ Regarding the duty to protect by means of effective legislation (and legislative omissions), see D.B. and Others v. Switzerland, nos. 58817/15 and 58252/15, §85; X and Y. v. The Netherlands, no. 8978/80, §30.

¹⁴¹ See, for example, German Federal Constitutional Court, Neubauer and Others v. Germany, 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 29 April 2021.

¹⁴² *Athanassoglou and Others v. Switzerland*, no. 27644/95, §§42-60; *Balmer-Schafroth and Others v. Switzerland*, no. 67\1996\686\876, §§30-40.

¹⁴³ See above Section herein, I.a., pp. 1-3.

¹⁴⁴ *Andrejeva v. Latvia*, no. 55707/00, §56.

¹⁴⁵ See *Naît-Liman v. Switzerland*, no. 51357/07, §§114-116 with references.

¹⁴⁶ Federal Court Decision (BGE) 147 I 280, §6.2.1 with references (authors' translation).

¹⁴⁷ Federal Court Decision (BGE) 146 I 145, §§4.1 and 4.2.

¹⁴⁸ Federal Administrative Court Decision, A-2992/2017, 27 November 2018, §§6-7.

¹⁴⁹ Federal Court Decision (BGE) 146 I 145, §§4-5.

¹⁵⁰ *Supra* Section herein, I.a., pp. 1-3.

¹⁵¹ See *Erablière A.S.B.L. v. Belgium*, no. 49230/07.