Below is an unofficial translation of the request by Senior Women for Climate Protection and others for a ruling to be issued pursant to Art. 25a APA and Art. 6 para. 1 and Art. 13 ECHR. The official legal application is in German and can be downloaded at: http://klimaseniorinnen.ch/.

Registered mail

The Federal Council Schweizerische Bundeskanzlei Bundeshaus West 3003 Bern

Federal Department of the Environment, Transport, Energy and Communications (DETEC)
Kochergasse 6
3003 Bern

Federal Office for the Environment FOEN 3003 Bern

Swiss Federal Office for Energy SFOE 3003 Bern

Zurich, 25 November 2016

Request to stop omissions in climate protection pursuant to Art. 25a APA and Art. 6 para. 1 and 13 ECHR

Ladies and Gentlemen of the Federal Council

Ladies and Gentlemen

In the matter of

Verein KlimaSeniorinnen Schweiz, 8004 Zürich

Applicant 1

And

Applicant A.Z.

Applicant 2

And Applicant B.Y. Applicant 3 And Applicant C.X. Applicant 4 And Applicant D.W. Applicant 5 (jointly «the Applicants») represented by Dr. Ursula Brunner, attorney-at-law, and/or Martin Looser, attorney-at-law, ettlersuter attorneys-at-law, Grüngasse 31, Postfach 1323, 8021 Zürich 1 (process agent) and/or Cordelia Bähr, lic. iur. LL.M. Public Law (LSE), attorney-at-law, bährettwein attorneys-at-law, St. Moritz-Str. 1, Postfach 46, 8042 Zürich Federal Council, Schweizerische Bundeskanzlei, Bundeshaus West, 3003 Bern Respondent 1 And Federal Department of the Environment, Transport, Energy and Communications (DETEC), Kochergasse 6, 3003 Bern Respondent 2 And Federal Office for the Environment FOEN, 3003 Bern Respondent 3

And

Swiss Federal Office for Energy SFOE, 3003 Bern

Respondent 4

(jointly "the Respondents")

regarding

discontinuation of failures in climate protection

We - acting under a mandate from and on behalf of the Applicants - request for

a ruling to be issued pursuant to Art. 25a APA and Art. 6 para. 1 and Art. 13 ECHR

and we submit these

requests for legal remedy:

 By 2020, the Respondents shall take all necessary actions within their competence to reduce greenhouse gas emissions to such an extent that Switzerland's contribution aligns with the target of holding the increase in global average temperature to well below 2°C above pre-industrial levels, or at the very least, does not exceed the 2°C target, thereby putting an end to the unlawful omissions undermining these targets.

Notably:

- a. Respondent 1 shall examine the duties of the Confederation under Art. 74 para. 1 of the Federal Constitution (Const.) and the fulfilment of these duties in the climate sector with the current climate goal and in compliance with:
 - Art. 74 para. 2 and Art. 73 Const. and the constitutional duty of the government to protect the individual in accordance with Art. 10 para. 1 Const; and
 - Art. 2 and 8 of the European Convention on Human Rights (ECHR);
 - and shall develop, without delay, a new plan to be implemented immediately and through 2020 that will permit Switzerland to achieve the "well below 2°C" target or, at the very least, not exceed the 2°C target, which requires a the reduction of domestic greenhouse gas emissions by at least 25% below 1990 levels by 2020;
- Respondent 1 shall communicate to the Federal Assembly (Parliament) and the general public that in order to comply with Switzerland's obligation to protect and the principles of precaution and sustainability a reduction of greenhouse gas emis-

- sions is necessary by 2020 in order to meet the "well below 2°C" target or, at the very least, not exceed 2°C target, which requires a domestic greenhouse gas reduction of at least 25% below 1990 levels by 2020;
- c. With a decision at the level of Federal Council, department or federal office, Respondents 1, 2, or 3 shall initiate, without delay, a preliminary legislative procedure for an emission reduction target as laid out in Legal Request 1(a); and
- d. Respondent 1 shall inform Parliament in its dispatch as stated in Legal Request 1(c) that the proposed emissions reduction target is in compliance with the Constitution and the ECHR.
- 2. Respondents shall take all necessary mitigation measures within their competence to meet the greenhouse gas reduction target defined in Legal Request 1, i.e. reducing greenhouse gas emissions by at least 25% below 1990 levels by 2020, thereby putting an end to their unlawful omissions. Notably:
 - a. Respondent 1 shall consider measures to achieve the target as defined in Legal Request 1(a);
 - Respondent 1 shall communicate the appropriate measures to reach the target as stated in Legal Request 1(b);
 - c. Respondents 1, 2, or 3 shall, with regard to Legal Request 1(c) above, include measures to achieve the target in the preliminary legislative procedure.
- 3. Respondents shall carry out all acts, within their competence, required to lower emissions by 2030 to such an extent that Switzerland's contribution aligns with the "well below 2°C" target or, at the very least, not exceed 2°C target, thus ending the unlawful omissions inconsistent with these targets. Notably:
 - a. Respondents 1, 2, or 3 shall, in the course of the preliminary legislative procedure, carry out all actions that allow Switzerland to do its share to meet the "well below 2°C" target or, at the very least, not exceed 2°C target, which means a domestic reduction of greenhouse gas emissions of at least 50% below 1990 levels by 2030;
 - b. Respondents 1, 2, or 3 shall include in the preliminary legislative procedure all necessary mitigation measures required to

meet the greenhouse gas reduction target as defined in Legal Request 3(a).

- 4. Respondents shall implement all mitigation measures, in their competence, required to achieve the current greenhouse gas reduction target of 20%, thus ending the unlawful omissions. Notably:
 - Respondent 3 shall obtain without delay the reports of cantons detailing the technical measures adopted to reduce the CO₂ emissions from buildings;
 - b. Respondent 3 shall verify that the cantonal reports include data about CO₂ reduction measures that have already been taken or are planned and their effectiveness; demonstrate the progress made to reduce CO₂ emissions from buildings in their territory; and require improvements if necessary;
 - c. Respondent 3 shall verify that cantons are issuing state-of-theart building standards for new and existing buildings;
 - d. Respondents 1, 2 and 3 shall take the necessary actions if cantons fail verification as stated in Legal Request 4(c); if necessary they shall become active in preparation of new state-of-the-art federal building standards for new and existing buildings;
 - e. Respondent 2, having determined that the interim building sector target for 2015 was not achieved, shall examine the need for improvements by cantons and propose additional effective mitigation measures to Respondent 1;
 - f. Respondents 1, 2, and 3 shall take steps aimed at rapidly increasing the CO_2 levy on thermal fuels;
 - g. Respondent 4 shall require the importers of passenger cars to submit data showing actual CO₂ emissions of passenger cars;
 - h. Respondent 2, given that the interim transport sector target 2015 will likely be missed, shall immediately draft additional and effective mitigation measures and propose them to Respondent 1; in particular, Respondent 1 shall take actions to promote electromobility or else demonstrate that the sector interim target in Art. 3 para. 2 of the CO₂ Ordinance can be achieved without such promotion; and Respondents 1, 2, and 3

- shall take steps to raise the compensation rate for the CO₂ emissions from motor fuels;
- i. Respondent 1 shall make a comprehensive assessment of the effectiveness of measures enacted under the CO_2 Act and consider whether additional measures are necessary, report the findings of the assessment to Parliament, and immediately initiate steps to implement the necessary measures for the period ending in 2020.
- 5. Alternatively, with regard to Legal Requests 1, 2, 3 and 4, a declaratory ruling shall be issued that states the respective omissions are unlawful.

as well as the following

procedural motion:

The requests for legal remedies 1 - 5 shall be enacted in a timely manner.

Statement of Grounds:

1. Briefly: What we demand and why we chose this path

1. The goal of this request is to stop the on-going failure of the Swiss Confederation, i.e. the Respondents, to take all possible steps to reduce greenhouse gas emissions; their omissions are in violation of both the Constitution and the European Convention on Human Rights (ECHR). Worded in the positive, our goal is to compel the Respondents – in the interest of safeguarding the life and health of the Applicants – to take all necessary steps required by the Federal Constitution and the ECHR to prevent a disastrous increase of global temperatures. The Applicants are members of a "most vulnerable group" to the effects of climate change. The claim is based on the evidence of substantially increased health risk for older women whose life and health are more severely impacted by periods of heatwaves than the health of the rest of the population. From the perspective of the Applicants, the Respondents have failed and continue to fail to fulfil their obligation to protect enshrined in the Constitution and the ECHR.

- 2. The Applicants therefore demand that the Respondents, within their respective competence, take a decision to stop the contested omissions that are in violation of the Constitution and the ECHR and initiate any and all actions required under constitutional and international law to achieve the climate protection targets deemed necessary by science and agreed under international law. The Applicants therefore request that a ruling on real acts [meaning acts based on federal public law that affect rights and obligations, but do not arise from formal rulings] pursuant to Art. 25a of the Administrative Procedure Act (APA) as well as Art. 6 para. 1 and Art. 13 ECHR be issued.
- On the one hand, the Applicants challenge the current insufficient domestic emissions reduction *target* of 20% below 1990 levels by 2020, as well as the insufficient domestic emissions *target* of 30% by 2020 that is currently under discussion in the preliminary legislative procedure, as unconstitutional and in violation of the ECHR. On the other hand, they criticise the insufficient mitigation *measures* not only in view of the current target for 2020, but even more strongly with regard to more ambitious, as well as constitutional- and ECHR-compliant targets for 2020 and 2030.
- 4. The Applicants claim that the contested omissions violate the sustainability principle (Art. 73 of the Const.), the precautionary principle (Art. 74 para. 2 Const.), and their right to life (Art. 10 Const), and also their rights under the ECHR, notably the right to life, to health, and to physical integrity, protected in Art. 2 and Art. 8 ECHR. Constitutional rights and human rights are linked to positive obligations to protect, which in this instance, owing to numerous omissions, have been and continue to be insufficiently implemented by the State.
- 5. This request concerns civil rights and obligations pursuant to Art. 6 para. 1 ECHR, since the contested omissions pose serious risks to the life, health, and physical integrity of the Applicants. The Applicants are therefore entitled to have their application assessed (ultimately in a court of law); this applies to all government conduct and all authorities. Art. 13 ECHR also provides that Applicants whose rights under the convention are violated shall have an effective remedy before a national authority.
- 6. Based on the aforementioned articles of the ECHR, the Federal Supreme Court provided the opportunity for the initiation of legal proceedings against real acts even before the total revision of the federal judiciary organisation, effective January 1, 2007. In order to account for the legal protection guar-

antee pursuant to the new Art. 29a Const., as well as Art. 6 para. 1 and Art. 13 ECHR, the APA was ultimately amended by adding Art. 25a. This provision closes a gap in the system of legal protections and shall warrant – also in terms of international law – sufficient legal protection. This is the legal protection, guaranteed by international law, which the Applicants are invoking.

- 7. More specifically, Applicants affected by state omissions, that are both unconstitutional and in violation of the ECHR, cannot be expected to wait to start legal proceedings until they actually suffered harm so that they (or their descendants) can sue the Confederation over state liability issues.

 Art. 25a APA allows Applicants, if they fulfil the formal prerequisites, to contest a violation by omission of a claim to protection under the ECHR and to demand its rectification.
- 8. Independently of Art. 25a APA, Applicants can also base their claim for a decision, including judicial consideration, of their requests for a legal remedy on Art. 6 para. 1 and Art. 13 ECHR a minimal guarantee assured by the member states of the ECHR and, if necessary, safeguarded by the European Court of Human Rights (ECtHR).

2. Structure and Composition of this Legal Brief

- 9. The requests of the Applicants include materially disparate actions (or omissions respectively) apart from the determination of targets there is the adoption of disparate (distinct or different) measures while referring procedurally to both national and international rules. The specifics of the initial position, lines of argumentation, and documentation of their requests call for comprehensive motivation on the one hand and a specific brief structure on the other.
- 10. The legal brief is essentially structured as follows:
 - Section 3 lists the formal preconditions for the submission of the request.
 - Section 3.5 specifies the required information about the Applicants.
 - Section 4 lays out the facts of the case. Apart from the state of the science, it presents the inadequacies of Swiss climate policy (regarding reduction targets and existing mitigation measures), as well as the risk posed by climate warming to the Applicants.

- Section 5 presents the demands of the Constitution and of international law on Swiss climate policy. Reasons are presented to explain why the CO₂ Act's emissions reduction target of 20% below 1990 levels by 2020, as well as the domestic reduction target of 30% in the on-going preliminary legislation procedure, fall short of what is required by the Constitution and the ECHR, and why, from the perspective of constitutional and of international law, targets of at least 25% emission reductions by 2020 and of at least 50% domestic emission reductions by 2030 are necessary. Together the insufficient reduction goals and the current mitigation measures fail to achieve even the existing target.
- Section 6 states the reasons why and how guarantees provided for in the Constitution and the ECHR are to be established based on Art. 25a
 APA, as well as Art. 6 para. 1 and Art. 13 ECHR.
- Section 7 establishes in detail why a ruling on real acts is required. In Section 7.2 the broad meaning of the term 'real act' is discussed; it includes unlawful omissions, even in the preliminary legislative procedure.
 Sections 7.4 and 8.5 explain to what extent the Applicants' rights and duties as well as their interests that deserve protection are affected.
- Section 8 lists the unlawful omissions of the Respondents and examines proposed mitigation measures to remedy the situation.
- 11. From the table of contents (at the end), the individual argumentation steps can be viewed in greater detail in advance.
- 12. This legal document contains numerous references to non-legal sources, which are offered as proof.

To ensure that the readability of this text is not made unnecessarily difficult, the corresponding *documentary evidence* (as well as cited legal sources) is provided in the footnotes and in the order they are mentioned in the separate "List of quotations offered for proof in the footnotes". Since these sources are very extensive, we are submitting the relevant passages electronically in a memory stick as well as in paper form. To facilitate searching in this document, the electronic version of this legal document is also stored in the accompanying USB stick.

- **BO:** List of quotations offered for proof in the footnotes
 - Memory Stick with the electronic version of this brief and the texts offered as evidence in the footnotes

Exhibit 1

Exhibit 2

3. Procedural matters

3.1 Power of Attorney

13. The signatories are the authorised representatives.

во:	•	Power of attorney of Applicant 1 dated 17 October, 2016	Exhibit 3
	•	Power of attorney of Applicant 2 dated November 19, 2016	Exhibit 4
	•	Power of attorney of Applicant 3 dated October 27, 2016	Exhibit 5
	•	Power of attorney of Applicant 4 dated October 22, 2016	Exhibit 6
	•	Power of attorney of Applicant 5 dated October 27, 2016	Exhibit 7

3.2 Jurisdiction

This application, pursuant to Art. 25a APA and Art. 6 para. 1 and Art. 13 ECHR, is aimed, based on procedural economy and objective grounds, at multiple authorities that are required to deal with matters falling within their competence and to coordinate among themselves. Because if a party files several requests for legal remedy, of which only a part of the concerns are in the area of responsibility of a respective authority, an authority is required to deal with the points falling within its competence. Moreover, the Respondents, ex officio, need to exchange views regarding the question of jurisdiction and refer the matter to the competent authority (Art. 8 APA).

3.3 Procedural route: Issuing a contestable ruling

- The Confederation has decided that in order to implement legal protection against real acts, such acts cannot be directly challenged, but rather require, beforehand, the issuance of an official ruling. Hence, we are submitting this request.
- 16. Recourse to the Federal Supreme Court must be provided to challenge rulings by the Respondents 2, 3 and 4 (Art. 44 ff. APA or Art. 31 ff. Federal

¹ HÄNER ISABELLE, Art. 8 N 13, in: WALDMANN BERNHARD/WEISSENBERGER PHILIPPE (Hrsg.), Praxis-kommentar Verwaltungsverfahrensgesetz (VwVG) [Administrative Procedure Act (APA), Commentary for Practitioners], Zurich 2016.

Act on the Federal Administrative Court [FACA]). ² None of the exceptions regarding the procedure of appeal to the Federal Administrative Court according to Art. 32 FACA apply.

If a ruling is issued by the Federal Council (Respondent 1), however, an appeal to the Federal Supreme Court is, on principle, inadmissible (Art. 189 para. 4 Const.). If, though, a court judgment must be made possible based on international law (which is the case here as will be shown in Section 6.1), affairs in the jurisdiction of the Federal Council will be transferred to the respective department *ex officio* (Art. 47 para. 6 of the Government and Administration Organisation Act [GAOA]). This will make it possible to bring matters before the Federal Administrative Court (and thus also the Federal Supreme Court).³ Respondent 1 is therefore requested to leave the issuing of rulings to Respondent 2.

3.4 Procedural motion: Urgency

17. All of the requests made are urgent.

On the one hand, the matter revolves around mitigation measures and targets *until 2020*. If the current emission target (which is in dangered of not being of achieved) is to be reached by then through stringent enforcement of existing and / or new mitigation measures (Legal Request 4), and if, beyond that, a higher emissions target is to be reached by 2020 (Legal Requests 1 and 2), it is clear that action must be taken immediately.

Urgency is also required concerning the targets *for 2030* (Legal Request 3), as it must be prevented that again legislative proposals are submitted to Parliament that violate the fundamental human rights of the Applicants. The draft bill presented by the Confederation does not meet these requirements; therefore, the course has to be set in a new direction when evaluating the results of the consultation process (starting in December 2016) and preparing the Federal Council's dispatch to Parliament.

³ SEILER HANSJÖRG, Art. 83 N 16, in: SEILER HANSJÖRG/VON WERDT NICOLAS/GÜNGERICH ANDREAS/ OBERHOLZER NIKLAUS (Hrsg.), Bundesgerichtsgesetz (BGG) [Federal Supreme Court Law (FSCA)], Bern 2015; BGE 129 II 193 E. 4.2; BBI 2013 9105 f.

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² Müller Markus, Rechtsschutz gegen Verwaltungsrealakte [Legal protection against administrative real acts], in: Tschannen Pierre (Hrsg.), Neue Bundesrechtspflege [New Judicial System], Bern 2007, p. 359.

3.5 The Applicants

- 18. The Applicants 2–5 are natural persons residing in Switzerland and capable of suing and being sued. Details regarding the Applicants 2–5:
 - Applicant 2 is living in Zurich and 85 years old. She carries a pacemaker und suffered a loss of consciousness resulting from a heat wave in the summer of 2015.
 - Applicant 3 is living in Geneva and is 79 years old. She suffered strongly during the last two hot summers. She has a cardiovascular illness and heatwaves strongly impair her performance.
 - Applicant 4 is living in Vico Morcote and is 75 years old. She sees her
 physician regularly because of chronic asthma and chronic obstructive
 pulmonary disease (COPD). Both afflictions grow more acute during
 heatwaves.
 - Applicant 5 is living in Carouge and is 74 years old. She suffers from asthma.

BO:	•	Copy of identity card of Applicant 2	Exhibit 8
	•	Copy of identity card of Applicant 3	Exhibit 9
	•	Copy of identity card of Applicant 4	Exhibit 10
	•	Copy of identity card of Applicant 5	Exhibit 11
	•	Medical certificate of Applicant 2 dated November 15, 2016	Exhibit 12
	•	Medical certificate of Applicant 3 dated October 19, 2016	Exhibit 13
	•	Medical certificate of Applicant 4 dated October 7, 2016	Exhibit 14
	•	Medical certificate of Applicant 5 dated October 4, 2016	Exhibit 15
	•	Proof of residence of Applicants 2-5	If disputed

19. Applicant 1 is an association and thus capable of being party to legal proceedings and standing trial. Applicant 1 is submitting the request for a ruling on real acts in terms of the Association's *right of appeal* based on its membership. The Applicant 1 has the following purpose (2, Articles of Association, translated from the German original):

The association aims to promote and implement effective climate protection in the interest of its members, all of whom are older women who represent a population group that is particularly affected in terms of their health by global warming.

The association is devoted to ensure that greenhouse gas emissions in Switzerland are at least reduced enough to prevent dangerous, humaninduced climate change on the part of Switzerland. For the responsible authorities shall promptly adopt greenhouse gas reduction targets that correspond at least to the recognised scientific knowledge and international rulings, and take measures that actually reduce greenhouse gas emissions by the extent strived for. This in particular to protect older women from health-related damages today and in the future. The association thus commits itself to effective climate protection in the interest of older women, but also in the interest of the general public and of future generations. The association pursues neither earnings nor self-help purposes.

Applicant 1 therefore aims to represent the aforementioned interests of its members. Its task is to resort to legal means in order to safeguard these interests (3, Articles of Association). It *mainly* consists of women who will be 75 years old by 2020, and based on its current membership list, 330 of the total of 539 members were born in 1945 or earlier.

139 members now already are more than 75 years old. On the average, the members of Applicant 1 are over 72 years old. Applicant 1 will always, i.e. also in the future, consist of such members (see the membership provisions in the 4, Articles of Association). These members of the Applicant 1 are, as shown in sections 4.4, 7.4 and 7.5, affected as a particularly vulnerable population group (a "most vulnerable group") in their legitimate interests such that they themselves would have the right to appeal (like the Applicants 2–5). Additionally, as of November 23, 2016, 318 women and men who do not fulfil the membership requirements of Applicant 1 have expressed their solidarity with Applicant 1.

• Articles of Association of Association "KlimaSeniorinnen Schweiz" [Senior Women for Climate

Exhibit 16

Protection Switzerland] from 23 August 2016
 Members list of the association "KlimaSeniorinnen Schweiz" [Senior Women for Climate Protection Switzerland] (name, home address and

age; as of November 23, 2016)

Exhibit 17

20. As demonstrated in detail below (s. 4.4), the Applicants belong to a "most vulnerable group" and their human rights are affected due to the failures of the Respondents to protect the climate considering their significantly increased mortality during heatwaves (see also s. 7.4.2 and s. 7.5.2). The Applicants, being particularly exposed to the risks caused by the unlawful omissions in climate protection, have a legitimate interest in the Legal Requests introduced at the beginning of this brief.

3.6 Note regarding the use of the designation "party"

21. Since the Respondents are both parties and competent authorities in the matters at issue in the requested ruling, the term "party" is not used in this brief, in order to improve readability.

4. Background

4.1 Global warming as a global and national problem

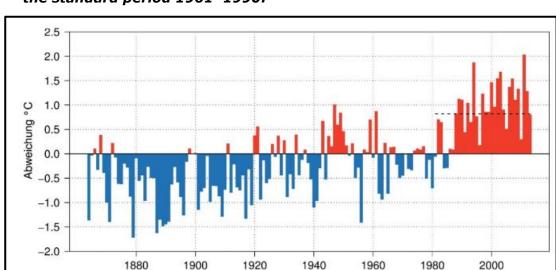
- 22. Failure to protect the climate is classified in the Global Risks Report 2016 as a global risk with a potentially devastating impact, and at the same time, one of the risks with the highest probability of occurrence.⁴
- As an alpine country, Switzerland is particularly affected by the consequences of global warming. In the past 50 years, summers have become around 2.5 °C and winters around 1.5 °C warmer leading to melting of the glaciers and disintegration of permafrost. As a result, there is an increase in dangerous landslides, the water cycle has become unpredictable and the likelihood of dangerous heatwaves is increasing. The extreme summer of 2003 is considered one of the worst natural disasters in the history of Europe and cost the continent around 70,000 lives more than an ordinary summer.
- As can be seen from the graph below, the climate in Switzerland has already become noticeably warmer, and thus the likelihood of natural disasters, such as the hot summers of 2003 and 2015, has increased significantly:

⁴ World Economic Forum, The Global Risks Report 2016, 11th Edition, figure 1.

⁵ Bericht des BAFU, Klimaänderung in der Schweiz – Indikatoren zu Ursachen, Auswirkungen, Massnahmen [FOEN Report, Climate Change in Switzerland – Indicators regarding the causes, consequences, measures], Bern 2013, (remark regarding English version: URL has changed, now available at

https://www.bafu.admin.ch/bafu/de/home/themen/klima/publikationen-studien/publikationen/klimaaenderung-schweiz-2013.html).

⁶ Robine Jean-Marie/Cheung Siu Lan/Le Roy Sophie/Van Oyen Herman/Herrmann François R., Report on excess mortality in Europe during summer 2003, Februar 2007, p. 12.



Long-term development of the annual mean temperature (in °C) in Switzerland since 1864, presented as deviation ["Abweichung"] from the mean of the standard period 1961-1990:

Source: Federal Office of Meteorology and Climatology MeteoSchweiz, can be viewed at http://www.meteoschweiz.admin.ch/home/klima/vergangenheit/klimanormwerte.html (updated on 1 December, 2014).

25. If global greenhouse gas emissions stay on the current path leading to global warming of 3-4 degrees Celsius, temperature would nearly double in Switzerland due to its geographical location.⁷

4.2 **Scientific Basis**

4.2.1 Consequences of global warming of above 1.5°C/2°C

Below, we mainly refer to the works and, in particular, the assessment re-26. ports of the Intergovernmental Panel on Climate Change (IPCC), which was established within the United Nations [by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO)] to provide an objective scientific basis for global warming as well as its political and economic impact. The IPCC is both an Intergovernmental Panel with 195 Member States and a Scientific Body. It compiles the results of thousands of studies and evaluates these from a critical point of view in its regularly published assessment reports. All member states of the IPCC have to agree with the assessment reports, which is why they carry special weight.8

⁷ DETEC, Klimapolitik der Schweiz, Erläuternder Bericht zur Vernehmlassungsvorlage [Climate policy of Switzerland: Explanatory Report on the draft for consultation], 31 August 2016, p. 7.

8 IPCC, Organization, www.ipcc.ch/organization/organization.shtml, 2016, July 14.

- 27. According to findings of the IPCC in the Fourth Assessment Report (2007) the risks of a temperature rise of up to 2°C in comparison to pre-industrial times are controllable. Therefore, temperature rise of above 2°C poses a risk of uncontrollable, dangerous and irreversible climate change that would threaten humans and the environment. This is why the international community as well as Switzerland set the goal not to let global average temperature rise above 2°C already years ago. 9
- Nowadays, the IPCC considers the resilience of the climate system to be lower, and therefore, expects the tolerance limit to be reached earlier. Deven with global warming of 2°C, significant risks of climate change are expected, which would be lower if warming was kept to 1.5°C. In the Fifth Assessment Report of the IPCC, the risks of climate change based on the cumulative emissions and the resulting temperature rise are shown as follows:

⁹ IPCC, Climate Change 2007: Synthesis Report, p. 51; cf. Conference of the Parties to the UNFCCC, The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Decision 1/CP.16 2010.

11 IPCC, Climate Change 2014: Synthesis Report, Summary for Policymakers, p. 19.

¹³ IPCC, Climate Change 2014: Synthesis report, Summary for Policymakers, S. 18.

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¹⁰ IPCC, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, p. 73.

¹² SCHLEUSSNER CARL-FRIEDRICH/LISSNER TABEA K./FISCHER ERICH M./WOHLAND JAN/PERRETTE MA-HÉ/GOLLY ANTONIUS/ROGELJ JOERI/CHILDERS KATELIN/SCHEWE JACOB/FRIELER KATJA/MENGEL MATTHI-AS/HARE WILLIAM/SCHAEFFER MICHIEL, Differential climate impacts for policy-relevant limits to global warming: The case of 1.5°C and 2°C. Briefing Note, http://climateanalytics.org/files/1p5impacts_briefing_esdd_20151116.pdf.

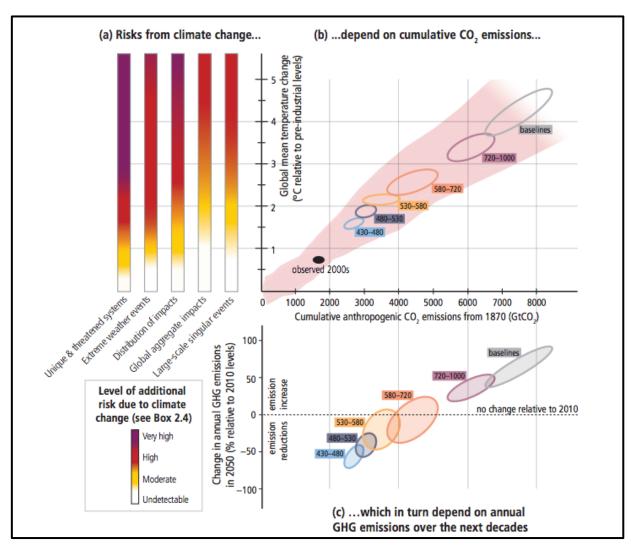


Figure SPM.10 | The relationship between risks from climate change, temperature change, cumulative carbon dioxide (CO_2) emissions and changes in annual greenhouse gas (GHG) emissions by 2050. Limiting risks across Reasons For Concern (a) would imply a limit for cumulative emissions of CO_2 (b) which would constrain annual GHG emissions over the next few decades (c). **Panel a** reproduces the five Reasons For Concern {Box 2.4}. **Panel b** links temperature changes to cumulative CO_2 emissions (in Gt CO_2) from 1870. They are based on Coupled Model Intercomparison Project Phase 5 (CMIP5) simulations (pink plume) and on a simple climate model (median climate response in 2100), for the baselines and five mitigation scenario categories (six ellipses). Details are provided in Figure SPM.5. **Panel c** shows the relationship between the cumulative CO_2 emissions (in Gt CO_2) of the scenario categories and their associated change in annual GHG emissions by 2050, expressed in percentage change (in percent Gt CO_2 -eq per year) relative to 2010. The ellipses correspond to the same scenario categories as in Panel b, and are built with a similar method (see details in Figure SPM.5). {Figure 3.1}

Source: http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf; IPCC (Fn. 10), p. 18.

Thus, even in case of limiting global warming to 2°C, a high additional level of risk is expected for unique and vulnerable ecosystems and extreme weather events (such as severe heatwaves that are particularly relevant for the Applicants).

This is why the Subsidiary Body for Scientific and Technological Advice

(SBSTA) ¹⁴ of the United Nations Framework Convention on Climate Change

(UNFCCC) has doubts about a "safe" 2°C target:

"The 'guardrail' concept, in which up to 2°C of warming is considered safe, is inadequate and would therefore be better seen as an upper limit, a defence line that needs to be stringently defended, while less warming would be preferable." [6] (emphasis added)

SBSTA suggested that the "defence line" should be shifted downwards by as much as possible. It should at least be aimed at limiting global warming as far below 2°C as possible. ¹⁶

Should the Earth warm by more than 4 degrees, which is, according to the IPCC, "more likely than not" without *additional* reduction efforts, and despite human adaptation to climate change, this would lead to the following scenario:

"The risks associated with temperatures at or above 4°C include substantial species extinction, global and regional food insecurity, **consequential constraints on common human activities**, and limited potential for adaptation in some cases (high confidence)." ¹⁷ (emphasis added)

32. In the words of DETEC (translated from the German original):18

If the emission of greenhouse gases continues, the planet will heat up further, increasing the likelihood of serious, widespread and irreversible climate change impacts through tilting effects. Tilting effects are environmental phenomena that lead to feedback. They make changes in the earth's climate system and their effects unpredictable. (emphasis added)

A global temperature rise of a **maximum of 2 degrees Celsius** is considered to be the **critical threshold**, from which **onwards implica-**

¹⁴ "The SBSTA is one of two permanent subsidiary bodies to the Convention established by the COP/CMP. It supports the work of the COP and the CMP through the provision of timely information and advice on scientific and technological matters as they relate to the Convention or its Kyoto Protocol. (...) the SBSTA plays an important role as the link between the scientific information provided by expert sources such as the IPCC on the one hand, and the policy-oriented needs of the COP on the other hand. It works closely with the IPCC, sometimes requesting specific information or reports from it, and also collaborates with other relevant international organizations that share the common objective of sustainable development", cf. http://unfccc.int/bodies/body/6399.php.

¹⁵ Subsidiary Body for Scientific and Technological Advice, forty-second session, Bonn 1-11 June 2015, Report on the structured expert dialogue on the 2013-2015 review, FCCC/SB/2015/INF.1, Message 5.

¹⁶ Subsidiary Body for Scientific and Technological Advice, forty-second session, Bonn 1-11 June 2015, Report on the structured expert dialogue on the 2013-2015 review, FCCC/SB/2015/INF.1, Message 10.

¹⁷ IPCC, Climate Change 2014: Synthesis report, Summary for Policymakers, p. 19.

¹⁸ DETEC, Klimapolitik der Schweiz, Erläuternder Bericht zur Vernehmlassungsvorlage [Climate policy of Switzerland: Explanatory Report on the consultation draft], 31 August 2016, p. 7.

tions and tilting effects could occur that can no longer be coped with. (emphasis added)

33. Since unmanageable effects may result even if the 2°C target is achieved, i.e. this goal is no longer to be considered as "safe", the Contracting States agreed in 2015 under the Paris Agreement that the increase in the global average temperature must be held to "well below" 2°C, and that efforts must be pursued to limit the temperature increase to 1.5°C (see s. 4.3.1 below).

4.2.2 Emission reductions in line with the 2°C target

4.2.2.1 Greenhouse gas budget and reduction to net zero emissions

- In the Fifth Assessment Report, the IPCC has examined in detail how the emissions of CO₂ and all greenhouse gases must be mitigated worldwide in order to be compliant with the 2°C target with a certain probability. In order to "likely" (i.e. with probability greater than 66%¹⁹) comply with the 2°C target, which is also set out in the CO₂ Act, GHG concentration should not exceed 450 ppm in year 2100, according to IPCC.²⁰
- Such stabilisation of the concentrations can only be achieved with a sharp decline and subsequently the total prevention of net emissions of anthropogenic greenhouse gas emissions. A net zero value must be achieved for CO₂ emissions between 2055 and 2070 and for the other greenhouse gases between 2080 and 2100.²¹
- 36. It remains unclear where the net zero limit for the "well below 2°C" target or a 1.5°C target lies; the IPCC is currently elaborating a special report which will be available in 2018. Certainly, regarding all greenhouse gases,

¹⁹ MASTRANDREA MICHAEL D./FIELD CHRISTOPHER B./STOCKER THOMAS F./EDENHOFER OTTMAR/EBI KRISTIE L./FRAME DAVID J./HELD HERMANN/KRIEGLER ELMAR/MACH KATHARINE J./MATSCHOSS PATRICK R./PLATTNER GIAN-KASPER/YOHE GARY W./ZWIERS FRANCIS W., Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties 2010, p. 3. ²⁰ IPCC, Climate Change 2014: Synthesis Report, Summary for Policymakers, p 20 f.; currently, the concentration of GHGs is 400.47 ppm (measurement of August 2016), see Dlugokencky Ed/Tans Pieter, NOAA/ESRL, http://www.esrl.noaa.gov/-amd/ccqq/trends/global.html.

gmd/ccgg/trends/global.html.

Subsidiary Body for Scientific and Technological Advice, forty-second session, Bonn 1-11

June 2015, Report on the structured expert dialogue on the 2013-2015 review,

FCCC/SB/2015/INF.1, S. 136; CLARKE L./JIANG K./AKIMOTO K./BABIKER M./BLANFORD G./FISHER-VANDEN K./HOURCADE J.-C./KREY V./KRIEGLER E./LÖSCHEL A. /McCollum D./Paltsev S./Rose

S./SHUKLA P.R./TAVONI M./VAN DER ZWAAN B.C.C. AND VAN VUUREN D.P., 2014: Assessing Transformation Pathways, in: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, Figure 6.7, p. 432.

the net zero limit will be advanced considerably. This is shown, inter alia, in the calculations of IPCC presented in the Fifth Assessment Report regarding the climate budget. They show that for a 1.5°C target less than half of the budget that is available for the 2°C target may be emitted.²² Thus, in order to have any chance to limit global warming to a maximum of 1.5°C by the year 2100, the emissions must decrease and be reduced to net zero very quickly.²³

37. The IPCC has published calculations, both in the Fourth and the Fifth Assessment Reports, that show which reduction targets must be adopted by industrialised countries such as Switzerland in order to contribute their part to the temperature stabilisation at 2 degrees. The necessary reduction target for Switzerland resulting from these calculations is explained in more detail below.

4.2.2.2 Target deficits in the proposed Swiss 2030 reduction path

- From the findings of the Fourth and the Fifth Assessment Report, it can be derived that the target set for 2020 (20% domestic reduction by 2020), together with the target proposed for 2030 as part of the preliminary legislative procedure (30% domestic reduction by 2030²⁴), has a significant deficiency: The reduction path corresponds with neither the 2°C target, nor the safer target agreed under the Paris Agreement ("well below the 2°C" target or 1.5°C target). Below, we highlight the deficit of the Swiss 2030 reduction target, thereby relying in particular:
 - 1. on the reduction targets described in the Fourth Assessment Report for industrialised countries (Annex I countries), which were approved by the Federal Council;
 - on the calculations presented in the Fifth Assessment Report regarding the global climate budget, the time remaining to achieve net zero emissions, as well as the different models for burden sharing (where calcula-

²² IPCC, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Geneva, Switzerland, Table 2.2., p. 63 f.

²³ ROGELJ JOERI/LUDERER GUNNAR/PIETZCKER ROBERT C./KRIEGLER ELMAR/SCHAEFFER MICHIEL/KREY VOLKER/RIAHI KEYWAN, Energy system transformations for limiting end-of-century warming to below 1.5 °C, Nature Climate change 6/2015, figure 1, p. 520.

 $^{^{24}}$ Art. 3 Draft CO $_2$ Act, 1 September 2016 (remark regarding the English version: URL has changed, now available at

https://www.bafu.admin.ch/bafu/de/home/themen/klima/recht/vernehmlassungen/vernehmlassung-vom-31-08-2016-30-11-2016-ueber-die-zukuenftige-k/unterlagen-fuer-die-vernehmlassung-vom-31-08-2016-30-11-2016-ueb.html).

tions were presented for OECD countries in place of the Annex-I countries);

- 3. on the findings regarding the required reduction rate (s. 4.2.3 below).
- In the Fourth Assessment Report of the IPCC²⁵ from 2007, it is stated that 39. industrialised countries like Switzerland (so-called Annex I countries²⁶) have to reduce their GHG emissions by 25% to 40% by 2020 compared to 1990 levels in order to meet the 2°C target with a probability of about 66%.²⁷ These calculations have been recognised by Switzerland (see para. 59).²⁸
- The fact that the Federal Council knew of these requirements according to 40. the Fourth Assessment Report at the time of drafting the CO₂ Act can be infered from the dispatch concerning Swiss climate policy after 2012. However, the Federal Council relativised its information to Parliament in the section «Need for action» by the use of subjunctive II. Subjunctive II is used to describe impossible and improbable conditions or consequences thereof, or to express that through proper exercise of discretion, a certain consequence among several possible consequences due to human decisions would be eliminated.29

"Developed countries should therefore reduce their emissions by 25 to 40 percent until 2020 compared to the 1990 levels."30 (Emphasis added, translation from German original)

With this wording, the Federal Council revealed that its proposal is aimed at a different emission target, i.e. one that does not meet these standards: A 20% target until 2020, which is 5 to 20 percent lower than what would have been necessary in accordance with the Fourth Assessment Report to comply with the 2°C target with a probability of 66%. This is the first target deficit, resulting from the period up to 2020.

²⁷ See. Art. 3.1 UNFCCC and Art. 4.4 Paris Agreement. Developed states declare that they will play a leading role in the fight against climate change.

²⁵ Gupta S./Tirpak D.A./Burger N./Gupta J./Höhne N./Boncheva A.I./Kanoan M./Kolstad C./Kruger A./Michaelowa A./Murase S./Pershing J./Saijo T./Sari A., Policies, Instruments and Co-operative Arrangements. In Climate Change 2007: Mitigation, Cambridge and New York, p. 776 box 13.7.
²⁶ Compare with recent categorisation, see para. 41.

²⁸ CONFERENCE OF THE PARTIES TO THE UNFCCC, The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its fifteenth session 2010, Decision 1/CMP.6; see also BBI 2009 7433, 7446, as well as BBI 2011 2075, 2130.

²⁹ See https://de.wikipedia.org/wiki/Konjunktiv.

³⁰ Botschaft über die Schweizer Klimapolitik nach 2012 (Revision des CO2-Gesetzes und eidgenössische Volksinitiative "Für ein gesundes Klima" [Dispatch regarding the Swiss climate policy after 2012 (revision of the CO₂ Act and Federal Popular Initiative "For a healthy climate"]), BBI 2009 7433, 7446; repeated in Botschaft zur Weiterentwicklung der Agrarpolitik in den Jahren 2014-2017 (Agrarpolitik 2014-2017) [Dispatch for the further development of agricultural policy in the years 2014–2017], BBI 2012 2075, 2130.

In the Fifth Assessment Report from the year 2014, the statements and calculations of the Fourth Assessment Report regarding the necessary reduction target for Annex I countries until 2020 and 2050³¹ were confirmed, even if this report did not deal explicitly with the year 2020 (in accordance with the time horizon) and presented calculations for OECD countries instead of Annex I countries. The statements of the IPCC in its Fourth Assessment Report therefore still are the best available knowledge regarding the reduction target necessary in industrialised countries by 2020 compared to 1990 levels.

The global reduction targets result from the details provided above in Section 4.2.2.1 regarding the climate budget and the time by which net zero global emissions must be achieved. These reduction targets relate to all countries of the world. This means that if every country had to achieve the same emission reductions (no burden sharing), these reduction targets would be what would have to be achieved domestically by each and every country. Worldwide, the GHG emissions must be reduced by 40% to 70% until by 2050 compared to 2010 levels and to net zero between 2080 and 2100 as stated in paragraph 35. CO_2 emissions must be reduced to net zero between 2055 and 2070.

The wide range of reduction targets is due in particular to the fact that, to varying degrees, they include the possibility of temporary exceeding the set limit and necessitate a corresponding, possibly extensive Carbon Dioxide Removal (CDR) from the atmosphere with subsequent permanent disposal. The problem with taking into account CDR in the reduction target is, however, that the availability of this technology is *not yet ensured today* and its potential is uncertain:

³¹ Gupтa et al. (fn. 25), p. 776 box 13.7.

³⁶ IPCC, Climate Change 2014, Synthesis report, Summary for Policymakers, p. 21.

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See also IPCC, Climate Change 2014, Synthesis report, Summary for Policymakers, p. 18.
 IPCC, Climate change 2014, Synthesis report, Summary for Policymakers, p. 20; FOEN bases its proposal to achieve an emission reduction of 50% compared to 1990 levels until 2030 on this hypothesis, cf. FOEN, Schweiz will Treibhausgasemissionen bis 2030 um 50 Prozent [Switzerland targets 50% reduction in greenhouse gas emissions by 2030], 27 February 2015 (remark regarding the English version: URL has changed, now available at https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-56394.html in English). Contrary to the statements of FOEN, IPCC talks of *domestic* reductions.
 Subsidiary Body for Scientific and Technological Advice, forty-second session, Bonn 1-11 June 2015, Report on the structured expert dialogue on the 2013-2015 review, FCCC/SB/2015/INF.1, p. 136; CLARKE et al. (fn. 21), p. 432.

³⁵ Subsidiary Body for Scientific and Technological Advice (Fn. 34), p. 432.

The **availability** and scale of these and other Carbon Dioxide Removal (CDR) technologies and methods are **uncertain** and CDR technologies are, to varying degrees, associated with challenges and risks.³⁷

CDR methods have biogeochemical and technological limitations to their potential on the global scale. There is insufficient knowledge to quantify how much CO₂ emissions could be partially offset by CDR on a century timescale. CDR methods may carry side-effects and long-term consequences on a global scale.³⁸ (emphasis added)

Because of these difficulties with CDR and in the light of the precautionary principle (see s. 5.3 below), it is to be assumed for now that Switzerland would have to reduce its emissions by 70% domestically until 2050 in contrast to the 2010 levels to contribute towards achieving the 2°C target with a 66% probability, if all countries of the world had to achieve the same reduction target, which is not the case as shown forthwith.

The Fifth Assessment Report no longer distinguishes between Annex I countries and other countries. Instead, there are assessments for OECD countries that were already members in 1990 (so-called OECD 1990; these formerly belonged to the Annex I countries) and other groups of countries. In the Paris Agreement, there is a passage in which developed countries declare that they will take the leading role in the fight against climate change (Art. 4.4 Paris Agreement). In addition, the reduction targets should continue to consider the different responsibilities and capabilities in the light of the different national circumstances (Art. 4.3 Paris Agreement).

Correspondingly, OECD 1990 countries such as Switzerland have to adopt a more stringent reduction target than other countries, as indicated in the Fourth Assessment Report for Annex I countries.

- In the Fifth Assessment Report, seven types of effort sharing possibilities are mentioned, 40 based on which the OECD 1990 countries would have to achieve domestic emission reductions of at least:
 - 40% to well above 100% by 2030 compared to 2010 domestically, depending on the type of effort sharing. For the average of all types of effort sharing, a reduction of 50% until 2030 has been stated.⁴¹

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³⁷ IPCC, Climate Change 2014, Synthesis report, Summary for Policymakers, p. 23.

³⁸ IPCC, Climate Change 2014, Synthesis report, Summary for Policymakers, p. 23, fn. 18.

³⁹ See the definition of the IPCC: "Annex I to the Climate Convention (UNFCCC) lists all the countries in the Organisation of Economic Cooperation and Development (OECD), plus countries with economies in transition, Central, and Eastern Europe (excluding the former Yugoslavia and Albania)."

⁴⁰ CLARKE et al. (fn. 21), p. 458.

⁴¹ CLARKE et al. (fn. 21), p. 460.

 80% to 95% by 2050 with all types of effort sharing compared to 2010.⁴² The target value of 80–95% for Annex I countries by 2050⁴³ as stated in the Fourth Assessment Report is thereby directly confirmed.

Both standards apply for compliance with a maximum concentration of 450 ppm CO_2 eq by 2100, given a probability of 66% for compliance with the 2°C target according to the best scientific knowledge. The lower targets of "well below 2°C" and aim for 1.5°C set under the Paris Agreement, however, require stabilising the concentration at a lower level (see also s. 4.2.2.1 above). In addition, the demonstrated reduction efforts must be enhanced to a) produce a higher certainty for achieving the target (e.g. 75% instead of 66%) on the basis of the precautionary principle (see s. 5.3 below) or if b) a type of effort sharing is chosen, which takes into account the historical emissions as well as the economic strength of the countries.

To stabilise the concentration at less than 430ppm CO₂eq, the Fifth Assessment Report states a reduction target in the range of 90% to more than 100% by 2050 for OECD-1990 countries. This applies to all effort-sharing categories except "equal marginal abatement costs".⁴⁴

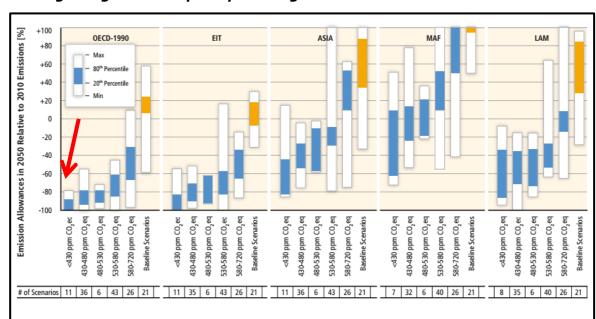


Figure 6.29 | Emission allowances in 2050 relative to 2010 emissions for different 2100 CO₂eq concentration ranges by all effort-sharing categories except 'equal marginal abatement costs', For comparison in orange; baseline scenarios. Source: Adapted from Höhne et al. (2014), Studies were placed in the CO₂eq concentration ranges based on the level that

the studies themselves indicate. The pathways of the studies were compared with the characteristics of the ranges, but concentration levels were not recalculated.

Source: CLARKE et al. (fn. 21), p. 460.

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 $^{^{42}}$ CLARKE et al. (fn. 21), p. 460. Details compared to 2010 for the 20th to 80th percentile, i.e. values overshooting 100% are also shown.

⁴³ Clarke et al. (fn. 21), p. 776 box 13.7.

⁴⁴ CLARKE et al. (fn. 21), p. 460, figure 6.29.

- 44. Against this background, and taking into account:
 - the globally remaining climate budget and the derived minimum reduction targets for all countries (para. 41); and
 - the agreed on rule that developed countries (Annex I countries in the Fourth Assessment Report and OECD 1990 countries in the Fifth Assessment Report) – including Switzerland – will play a leading role in contributing to climate protection (para. 42)

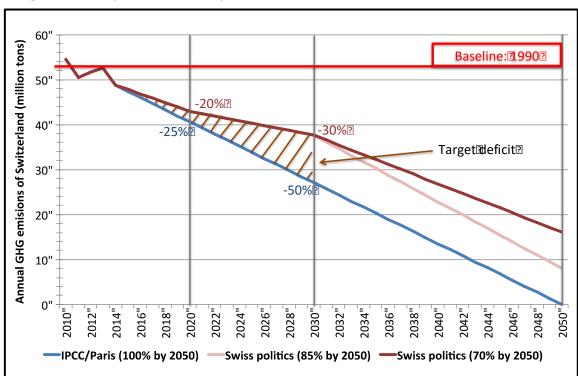
as well as against the background of:

- enormous time pressure (see also s. 4.2.3) that does not allow for any delay in the domestic reduction efforts; and
- the target, refined on the basis of scientific evidence (s. 4.2.1, for global warming to be limited to well below 2°C (as stated in Art. 2 para. 1(a) of the Paris Agreement),

means that Switzerland will have to reduce its GHG emissions at the least to net zero by 2050 compared to 1990 levels in order to effectively contribute to the prevention of climate disasters looming in case of warming of 2°C or greater.

- 45. If Switzerland has to reduce its GHG emissions at the minimum to net zero by 2050 compared to 1990 levels, and considering a linear reduction pathway, it follows that:
 - the target of at least 25% (to 40%) for Annex I countries until 2020
 (see para. 38 f.) as described in the Fourth Assessment Report, as well as
 - the reduction effort of 50% by 2030 as set out in the Fifth Assessment Report for OECD 1990 countries, considering the average of all types of effort sharing (see para. 38). It should be noted that, depending on the chosen type of effort sharing, the reduction effort required until 2030 could reach even 100% or more, and the figures presented here are therefore just minimums.

Therefore, with the current domestic target of minus 20% by 2020 compared to 1990 levels and minus 30% by 2030 compared to 1990 levels, there is a substantial target deficit as illustrated by the following figure.



Target deficit (own illustration)

46. The target deficit increases when compliance with the greenhouse gas budget is also considered besides the defined target values for future years: This requires that the current shortcomings be additionally compensated in the years to come. Correspondingly, the emissions by 2030 also have "strong implications for the challenges of, and options for, bringing concentrations to about 450 to about 500 ppm CO₂eq by the end of the twenty-first century."

4.2.2.3 Purchase of emission reductions abroad

47. Since all countries must reduce their emissions "well below the 2°C" target, in accordance with the Paris Agreement, each country must pursue a path that ensures achieving the net zero emission target within the required time. Switzerland, therefore, cannot rely on the possibility of purchasing additional emission reductions abroad at all times. The availability of permanent emission reductions from other countries will be very limited, as these countries will need them to achieve their own targets. With such limitations, on-going purchases of emission reductions will likely lead to lower emission reduction at another place, which in turn would thwart the efforts

 45 CLARKE et al. (fn. 21), p. 419.

made to achieve the global (well below) 2°C target! In view of the international realities, it is doubtful that such a scenario can be prevented.

Switzerland must reduce its emissions itself, domestically, in order to con-48. tribute to the global emission reduction that is necessary to achieve the 2°C target and the "well below 2°C" target.

4.2.3 The reduction rate necessary to meet the 2°C target

49. To comply with a minimum 2°C target, not only the scale of the global emission reduction but also the rate of the reduction is important. 46 If the emission reduction efforts required by 2020 are delayed in full or partially, substantial social and economic drawbacks will result according to the United Nations Environment Programme (UNEP), since far more emissions would have to be reduced in a shorter time later. This limits the freedom of choice regarding the mitigation measures and increases the cost. Also, the risk of failing to achieve the 2°C target increases significantly:

> The consequences of postponing stringent emission reductions will be additional costs and higher risks to society (...). By postponing rigorous action until 2020, this pathway will save on costs of mitigation in the near term. But it will bring much higher costs and risks later on, such as:

> i: much higher rates of global emission reductions in the medium term; ii: greater lock-in of carbon-intensive infrastructure;

> iii: greater dependence on using all available mitigation technologies in the medium-term;

iv: greater costs of mitigation in the medium and long-term, and greater risks of economic disruption;

v: greater reliance on negative emissions; and

vi: greater risks of failing to meet the 2°C target, which would lead to substantially higher adaptation challenges and costs. 47 (emphasis added)

Also according to the IPCC, the risk of failing to meet the 2°C target will 50. rise significantly:48

> "Delaying additional mitigation to 2030 will substantially increase the challenges associated with limiting warming over the

⁴⁶ Burkhardt Andrea/Bally Jürg/Nägeli Barbara, Art. 1 CO₂-Gesetz N 12, in: Brigitta Kratz/Michael Merker/Renato Tami/Stefan Rechsteiner/Kathrin Föhse (Hrsg.), Kommentar zum Energierecht [Commentary on Energy Legislation] 2016.

⁴⁷ UNEP, Emissions Gap Report 2014, Executive Summary, section 3.

⁴⁸ IPCC (fn. 11), p. 24; UNEP (Fn. 47), section 3.

21st century to below 2°C relative to pre-industrial levels. "49 (emphasis added)

51. This applies even more to a 1.5°C target:

"The window for achieving this goal is small and **rapidly closing**".⁵⁰ (emphasis added)

Reductions delayed by years lead to steep emission reduction curves that are hard to cope with and are in addition to the above-mentioned risk of not being able to achieve the 2°C target. SBSTA stated the following in "Message 2":

Imperatives of achieving the long-term global goal are explicitly articulated and at our disposal, and demonstrate the cumulative nature of the challenge and the need to act soon and decisively.

Scenario analysis shows that limiting global warming to below 2°C implies the following: a large reduction in global greenhouse gas emissions in the short to medium term, global carbon dioxide neutrality early in the second half of this century, and negative global greenhouse gas emissions towards the end of the twenty-first century. The longer we wait to bend the currently increasing curve of global emissions downward, the steeper we will have to bend it, even with negative emissions. Limiting global warming to below 2°C necessitates a radical

transition (deep decarbonization now and going forward), not merely a fine tuning of current trends.⁵¹

- To achieve the 2°C target, the *immediate* reduction of emissions and thus "large-scale transformations in human societies, from the way that we produce and consume energy to how we use the land surface"⁵² are necessary. Otherwise, the risk of failing to achieve the 2°C target increases significantly. In addition, delayed reduction efforts are significantly more expensive for society, making, in turn, the implementation of the reduction efforts less likely, and the risk of global warming higher. This applies even more to the new target of limiting global warming to "well below 2°C".
- The fact that the rate of reduction, for economic reasons, cannot be set at will is also important. The IPCC has assessed which reduction path would be associated with what costs, and concluded that the delay of the emission reductions beyond 2030 would prove significantly more expensive, and thus the emission reduction would be more unlikely, than in the case of immedi-

⁵⁰ Rogel et al. (fn. 23), p. 519.

⁵² CLARKE et al. (fn. 21), p. 418.

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⁴⁹ IPCC (fn. 11), p. 24.

⁵¹ Subsidiary Body for Scientific and Technological Advice, forty-second session, Bonn 1-11 June 2015, Report on the structured expert dialogue on the 2013-2015 review, FCCC/SB/2015/INF.1, p. 11.

ately beginning with measures for the necessary reductions. Scenarios planned with a maximum reduction rate not higher than 3% per year are substantially more cost-effective and thus make actual emission reductions more likely than those requiring higher annual reduction rates in the future.

"Scenarios with GHG emission levels of above 55 GtCO₂-eq/yr require substantially higher rates of emissions reductions between 2030 and 2050 (median estimate of 6%/yr as compared to 3%/yr in cost-effective scenarios)." ⁶³

This limits political decision makers in their choice of reduction path.

If Switzerland does not *now* strive to achieve the necessary reductions *by itself* and switch to an emission-free economy, *it will not anymore be able to manage this transformation on time*. This is not changed by the intention to purchase 20% foreign emission reductions in addition to the domestic target (see also s. 4.2.2.3 above), because these 20% emissions purchased will be missing on the path to net zero domestically. Switzerland is therefore at a severe risk of not making the necessary contribution to limit global warming to 2°C /"well below 2°C".

- By 2013, Switzerland *only managed to stabilise and not lower* its emissions (see s. 4.3.2.1 below). The current reduction target of 20% by 2020 requires an annual reduction of 2%, whereby it is doubtful whether this target will be achieved. Reducing only 1 percent a year from 2020 to 2030 as now planned means halving of the reduction rate according to current legislation!
- In other words, the Respondents are already planning to attain neither the "well below 2°C" target, nor the 2°C target.

4.3 Inadequacy of Swiss climate policy

4.3.1 Treaty obligations / international law

Global warming is classified as an acute and potentially irreversible threat to humanity, as shown in s. 4.2. There is agreement that global warming must be tackled with the highest priority in order to avoid its unacceptable consequences.⁵⁴

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⁵³ IPCC, Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change Geneva, Switzerland, Fig 3.3. p. 84 f.

⁵⁴ Conference of the Parties to the UNFCCC, Adoption of the Paris Agreement, Decision 1/CP.21, p. 1.

58. The United Nations wants to prevent a "dangerous anthropogenic interference with the climate system".

197 contractual Parties (196 countries and the European Union) set out this goal in Art. 2 of the United Nations Framework Convention on Climate Change [UNFCCC]⁵⁵ on 9 May 1992. In 2009, they agreed that such a "dangerous interference with the climate system" will take place in case of a global warming of more than 2°C and they enshrined this so-called 2°C target within several decisions since then.⁵⁶

- Cancun Agreement of 2010 (decision 1 / CP.16):

[The Conference of the Parties] further recognizes that deep cuts in global greenhouse gas emissions are required according to science, and as documented in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, with a view to reducing global greenhouse gas emissions so as to hold the increase in global average temperature below 2°C above pre-industrial levels, and that Parties should take urgent action to meet this long-term goal, consistent with science and on the basis of equity; also recognizes the need to consider, in the context of the first review, as referred to in paragraph 138 below, strengthening the long-term global goal on the basis of the best available scientific knowledge, including in relation to a global average temperature rise of 1.5°C.57 (emphasis added here and below)

- Durban in 2011 (decision 1 / CP.17):

Noting with grave concern the **significant gap** between the aggregate effect of **Parties' mitigation pledges** in terms of global annual emissions of greenhouse gases by 2020 and aggregate **emission pathways consistent with having a likely chance of holding the increase in global average temperature below 2°C or 1.5°C** above preindustrial levels, [...]. ⁵⁸

Switzerland has recognised this 2° C target as a Contracting State and referred to in Art. 1 para. 1 CO₂ Act.

- 59. Furthermore, the fact that a reduction of 25% to 40% is necessary for compliance with the 2°C target was recorded in several decisions and thus has been also recognised by Switzerland:
 - Vienna Climate Change Conference 2007:

"About 1,000 delegates at the Aug 27-31 UN talks set greenhouse gas emissions cuts of **between 25 and 40 percent** below 1990 levels as a

⁵⁶ CONFERENCE OF THE PARTIES TO THE UNFCCC (fn. 9), section 4; CONFERENCE OF THE PARTIES TO THE UNFCCC, Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, Decision 1/CP.17 2011. The decisions of the Conference of the Parties are made unanimously or by consensus.

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⁵⁵ SR 0.814.01.

⁵⁷ Conference of the Parties to the UNFCCC (fn. 9), section 4.

⁵⁸ Conference of the Parties to the UNFCCC (fn. 56).

non-binding **starting point** for rich nations' work on a new pact to extend the UN's Kyoto Protocol beyond 2012."⁵⁹ (emphasis added here and below)

"This is a **small step**, Artur Runge-Metzger, head of the EU Commission delegation, told Reuters. We wanted bigger steps. But I think the **25-40** percent will be viewed as a starting point, an anchor for further work." ⁶⁰

- Cancun Agreement 2010 (decision 1/CMP.6):

Also **recognizing** that the contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Climate Change 2007: Mitigation of Climate Change, indicates that achieving the lowest levels assessed by the Intergovernmental Panel on Climate Change to date and its corresponding potential damage limitation would **require Annex I Parties as a group to reduce emissions in a range of 25–40 per cent below 1990 levels by 2020.** 61

Durban 2011 (decision 1/CMP.7):

"Aiming to **ensure** that aggregate emissions of greenhouse gases by Parties included in Annex I **are reduced by at least 25–40 per cent below 1990 levels by 2020**, noting in this regard the relevance of the review referred to in chapter V of decision 1/CP.16 to be concluded by 2015. '62

Doha 2012 (decision 1/CMP.8, paragraph 7):

Decides that each Party included in Annex I will revisit its quantified emission limitation and reduction commitment for the second commitment period at the latest by 2014. In order to increase the ambition of its commitment, such Party may decrease the percentage inscribed in the third column of Annex B of its quantified emission limitation and reduction commitment, in line with an aggregate reduction of greenhouse gas emissions not controlled by the Montreal Protocol by Parties included in Annex I of at least 25 to 40 per cent below 1990 levels by 2020.⁶³

- Warsaw, 2013 (decision 1/CP.19, paragraph 4c):

Urging each developed country Party to **revisit** its quantified economywide emission reduction target under the Convention and, if it is also a Party to the Kyoto Protocol, its quantified emission limitation or reduction commitment for the second commitment period of the Kyoto Proto-

61 CONFERENCE OF THE PARTIES TO THE UNFCCC (fn. 28).

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⁵⁹ Planet Ark Environmental News, Industrial Nations Agree to Step to New Climate Pact, 3 September 2007, https://unfccc.int/files/press/news_room/unfccc_in_the_press/application/pdf/ydb_20070903_reuters.pdf.

⁶⁰ Planet Ark Environmental News (fn. 59).

⁶² CONFERENCE OF THE PARTIES TO THE UNFCCC, Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its sixteenth session, Decision 1/CMP.7, Preamble.

 $^{^{63}}$ Conference of the Parties to the UNFCCC, the Doha Amendment, Decision 1/CMP.8, 28 February 2013, § 7.

col, if applicable, in accordance with decision 1/CMP.8, paragraphs 7–11.64

- Paris 2015 (decision 1/CP.21, paragraph 105c):

Reiterating its resolve, as set out in decision **1/CP.19**, **paragraphs 3** and **4**, to accelerate the full implementation of the decisions 32urisdicting the agreed outcome pursuant to decision 1/CP.13 and **enhance** ambition in the **pre-2020** period in order to ensure the **highest possible mitigation efforts** under the Convention by all Parties. 65

60. With the Paris Agreement of December 2015, the Parties redefined the goal of preventing "dangerous interference with the climate system" insofar as the average global warming of the Earth's atmosphere compared to pre-industrial times should be kept "well below 2°C". Efforts shall be made to limit global warming to 1.5°C (Art. 2 para. 1(a) Paris Agreement⁶⁶).

4.3.2 Insufficient mitigation measures to achieve the current reduction target for 2020

4.3.2.1 Will Switzerland achieve its climate target for 2020?

Switzerland has set an emission reduction target of 20% below 1990 levels by 2020 (Art. 3 para. 1 CO_2 Act). To limit global warming, it is decisive whether this goal can be achieved with the existing and the planned mitigation measures and their enforcement, respectively. In this regard, the "Climate Action Tracker" analyses the conditions in Switzerland from an international, scientific perspective: 68

With currently implemented policies and measures Switzerland will neither be able to meet its pledge nor its [Intended Nationally Determined Contribution] INDC. (emphasis added)

With currently implemented policies, Switzerland is expected to reach an emissions level of 47.3 MtCO $_2$ e in 2020 (excluding LULUCF). This constitutes a decrease in domestic GHG emissions by only 10.5% below 1990 levels. (emphasis added)

⁶⁴ Conference of the Parties to the UNFCCC, further advancing the Durban Platform, Decision 1/CP.19 (regarding decision 1/CMP.8, § 7, see above concerning Doha).

 $^{^{65}}$ Conference of the Parties to the UNFCCC, Adoption of the Paris Agreement, Decision 1/CP.21 (regarding decision 1/CP.19, § 4c, see above concerning Warsaw).

⁶⁶ CONFERENCE OF THE PARTIES TO THE UNFCCC, Adoption of the Paris Agreement, Decision 1/CP.21 December 2015.

⁶⁷ "The Climate Action Tracker (CAT) is an independent scientific analysis produced by four research organisations tracking climate action and global efforts towards the globally agreed aim of holding warming below 2°C, since 2009", cf. CLIMATE ACTION TRACKER, What is CAT?, http://climateactiontracker.org/about.

⁶⁸ CLIMATE ACTION TRACKER, Switzerland, http://climateactiontracker.org/countries/switzerland.

Over the last two decades, emissions have remained **fairly stable**, ranging from $52-55 \text{ MtCO}_2$. (emphasis added)

- Academic assessment of environmental protection in Switzerland is mixed, by which climate protection is judged to be "predominantly negative". In particular, there is no CO_2 levy on motor fuels.⁶⁹
- In the first commitment period 2008–2012 based on the Kyoto Protocol, Switzerland did achieve the reduction target of 8% below 1990 levels (much lower than the current target), but only about half through domestic measures (4.5 million tonnes/year) and the other half thanks to the additional purchase of foreign emission reduction certificates (2.5 million tonnes/year) and to the recognition of the carbon sequestration effect of forests (1.6 million tonnes/year). This experience from the first commitment period, together with the fact that mitigation measures are only prescribed in some sectors and that they are limited in their effectiveness (ss. 4.3.2.2 to 4.3.2.6 below) explain the fear that Switzerland will not be able to achieve the emission reduction target set in Art. 3 para. 1 CO₂ Act which is too low anyway (s. 4.2.2).
- The climate indicators of FOEN, measuring qualitatively (and not quantitatively), show that the *present as well as the expected* state in Switzerland regarding the climate sector (where an evaluation is possible at all) is currently *negative*:

⁶⁹ GRIFFEL ALAIN, Art. 74 N 43 and 47, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

⁷⁰ Botschaft zur Genehmigung der Änderung von Doha des Protokolls von Kyoto zum Rahmenübereinkommen der Vereinten Nationen über Klimaänderungen [Dispatch for approving the amendment of Doha to Kyoto Protocol regarding the framework agreement of the United Nations on Climate Change], BBI 2014 3455, 3456; FOEN, Kyoto-Protokoll: Die Schweiz hat ihre Verpflichtungen 2008–2012 erfüllt [Kyoto Protocol: Switzerland fulfills its commitment for 2008–2012], 10 April 2014 (remark regarding the English version: URL has changed, now available at https://www.admin.ch/gov/en/start/documentation/media-releases.msg-id-52619.html in English).

Commented and assessed indicators

The indicators illustrate the changes and state of the environment using a selection of parameters.						
	neutral negative e to evaluate					
Search Indicator	Торіс					
Search term (bl	ank = all indicators) Climate •		search			
Topic ~	Indicatore Name ➤	State ~	Trend ~			
Air, Biodiversity, C						
Air, Climate, Landsc	Freight traffic, road	8	8			
Air, Climate, Landsc	Motorised passenger transport	=	•			
Biodiversity, Biotec	Population growth					
Climate	Attitude toward climate change	₿	•			
Climate	Buildings meeting the Minergie standards®	E	•			
Climate	Cattle population					
Climate	Climate protection knowledge	=				
Climate	CO2 Emissions from thermal and motor fuels	Ø				
Climate	CO2 emissions of new cars	æ	=			
Climate	Consumption-based greenhouse gas emissions	æ	=			
Climate	Glacier retreat		=			
Climate	New renewable energies	≅	☺			
Climate	Per-capita CO2 emissions	8	≅			
Climate, Biodiversit	Annual mean temperature		=			
Climate, Chemicals	Greenhouse gas emissions	E	=			
Climate, Forest and						
Climate, Landscape	•					
Climate, Landscape	·					
Forest and wood, Cli	Wood harvest by timber assortment	E	a			
Natural hazards, Cli	Damage caused by floods, landslides, debris flows and rockfall	=				
Natural hazards, Cli	- · · · · · · · · · · · · · · · · · · ·					
Water, Biodiversity,	Temperature of watercourses	₿	E			

Source: Federal Office for Environment FOEN, 29 January 2015 (remark regarding the English version: URL has changed, now available at https://www.bafu.admin.ch/bafu/en/home/state/indicators.html in English).

In the recently published Explanatory Report regarding the draft for consultation on climate policy in Switzerland, it becomes – based on the latest data – clear once more that the 20% target will be missed: If further mitigation measures are not taken before 2020, the emissions would only fall by 12.3% until 2020!

Reference scenario for the different sectors

				Greenhousgasemissions							
Year	Popula- tion	GDP real ^{d)}	Price of Oile)	Buil- dings	Trans- port	Industry	Agri- culture	Others	Total	Total	Total/ cap
	Millions	Bn. CHF	USD 2013	M t CO ₂ eq	M t CO₂eq	M t CO₂eq	M t CO₂eq	M t CO₂eq	M t CO₂eq	Index	t CO₂eq
1990a)	6.7	447	36	17.1	14.9	13.0	7.3	1.4	53.7	100	8.0
2020b)	8.7	717	116	12.0	15.7	10.7	6.5	2.2	47.1	87.7	5.4
2030b)	9.5	818	139	10.6	14.9	10.4	6.5	1.6	44.0	81.8	4.6

- a) Federal Office for the Environment FOEN (2016): Inventory of Greenhouse Gas Emissions of Switzerland
- b) Infras / EPFL (2016): Emssions scenarios without measures 1990-2030, Scenario WEM
- c) Contains emissions from synthetic greenhousgases (F-gases) and from waste sector (without incineration)
- d) Prices 2013
- e) Per barrel

Source (translation from the German original): DETEC, Klimapolitik der Schweiz, Erläuternder Bericht zur Vernehmlassungsvorlage [Climate policy in Switzer/and, the explanatory report regarding the draft for consultation], 31 August 2016, p. 29, available at: https://www.admin.ch/ch/d/gg/pc/ind2016.html#UVEK.

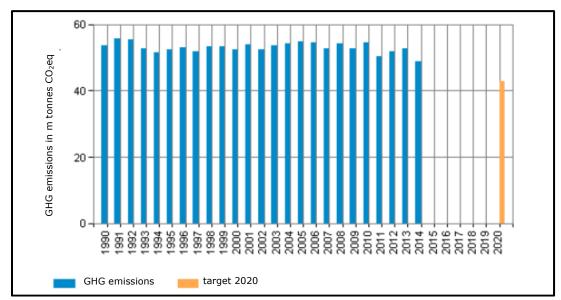
This result largely confirms the assessment of the *Climate Action Tracker*, which was based on old data, and according to which Switzerland would *only achieve a reduction of 10.5%* of the emissions by 2020 compared to 1990 levels (see para. 61). Consequently, FOEN fears that the targets pursuant to the CO₂ Act and the CO₂ Ordinance will not be achieved in time. As part of the evaluation duty pursuant to Art. 40 CO₂ Act and in view of the legislation for the period after 2020, FOEN commissioned various studies on the effectiveness of the implemented measures and possible improvements as well as on additional mitigation measures.⁷¹ For example, one of these studies examines the possibilities of further measures in the building sec-

 $^{^{71}}$ Cf. FOEN, Zusatzinformation Vernehmlassung Revision CO₂-Gesetz [additional information consultation regarding revision of CO₂-Act] (remark regarding the English version: URL has changed, now available at

https://www.bafu.admin.ch/bafu/de/home/themen/klima/recht/vernehmlassungen/vernehmlassung-vom-31-08-2016-30-11-2016-ueber-die-zukuenftige-k/zusatzinformationen.html).

- tor.⁷² It is at least not apparent, however, that the possibilities mentioned in this study for the *period up to 2020* were further pursued.⁷³
- 67. Since 1990, the GHG emissions appear to remain at the same level. Even recently, the present and expected negative state of climate protection in Switzerland was confirmed by FOEN:

Core indicator greenhouse gas emissions



Source: FOEN, Kernindikator Treibhausgas-Emissionen [Core indicator of greenhouse gas emissions], 15 April 2016 (remark regarding the English version: URL has changed, now available at available at:

https://www.bafu.admin.ch/bafu/en/home/themen/thema-klima/klima--daten--indikatoren-und-karten/klima--indikatoren/indikator-

klima.pt.html/aHR0cHM6Ly93d3cuaW5kaWthdG9yZW4uYWRtaW4uY2gvUHVibG/ljL0FlbURldGFpbD9pbmQ9S0wwMTImbG5nPWVu.html in English).

Doubt about the fact that the emission reduction target of 20% will be achieved by 2020 with the existing mitigation measures also stems from the history of the CO₂ legislation that entered into force on 1 January, 2013:

The Federal Council had set out in its draft legislation that the emission reductions should be achieved with measures inland *and* abroad.⁷⁴ Parliament

 74 Art. 3 para. 1 draft CO_2 Act. See also BBI 2009 7525, p. 7525 ff.

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⁷² UHLMANN FELIX/FLEISCHMANN FLORIAN, Gutachten zu Handen des Bundesamts für Umwelt BAFU betreffend Verfassungsgrundlage für eidgenössische polizeirechtliche Instrumente im Gebäudebereich [Report to the attention of the Federal Office of the Environment FOEN concerning constitutional basis for federal command and control instruments in the building sector] April 2015 (remark regarding the English version: URL has changed, now available at https://www.bafu.admin.ch/bafu/de/home/themen/klima/recht/vernehmlassungen/vernehmlassung-vom-31-08-2016-30-11-2016-ueber-die-zukuenftige-k/zusatzinformationen.html). www.bafu.admin.ch/klima/12006/14325/index.html?lang=de).

 $^{^{73}}$ See, at least, Art. 8 and 9 of the consultation draft CO_2 Act for the period after 2020.

decided that this emission reduction should be achieved *only by domestic measures* but *did not provide the additional instruments* required for the more stringent specifications required. On the contrary, Parliament discarded the option foreseen by the Federal Council to introduce a CO_2 levy on motor fuels "if required"⁷⁵. The Federal Council, however, did not ask Parliament to pass further or alternative measures in order to cope with the new legislation according to which the reduction target may only be achieved by domestic measures. Against that background, all Respondents should have used the scope left to do much more. Furthermore, subsequently, Respondent 1 together with Respondents 2 and 3 should have proposed new or more stringent measures (Art. 40 para. 1 let. b CO_2 Act).

4.3.2.2 Insufficient effectiveness of mitigation measures taken in general

- The fact that, with great probability, the reduction target set will not be achieved also means that the mitigation measures prescribed to reach this target are also insufficient.
- Since the present request to stop omissions for climate protection is directed to specialised authorities, the Applicants have avoided describing the measures taken in the climate sector in detail; these are well known to the specialised authorities. The statements on the effectiveness of individual measures are also limited to some selected important points.
- 71. According to FOEN the greatest reduction potential prevails in the sectors Transport and Buildings, which is why the measures in these areas are discussed below. Although the corresponding regulations are somewhat extensive and detailed, the potential for reduction of GHG is under-used even in these sectors and the effectiveness of the measures taken is too limited. Our remarks cannot give a complete picture, but merely shine a spotlight on the omissions and missed opportunities.

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⁷⁵ Art. 27 draft CO₂ Act.

⁷⁶ OBERLE BRUNO, Kyoto Zielerreichung Klimapolitik 2020 [Achievement of Kyoto climate policy targets 2020], www.news.admin.ch/NSBSubscriber/message/attachments/34439.pdf; BAFU, Kosten und Potential der Reduktion von Treibhausgasen in der Schweiz [Costs and potential of reduction of greenhouse gases in Switzerland], 16 December 2013, p. 2; EIDGENÖSSISCHE FINANZVERWALTUNG EFV, BUNDESAMT FÜR ENERGIE BFE, BUNDESAMT FÜR UMWELT BAFU [FEDERAL FINANCE ADMINISTRATION, SFOE, FOEN], Erläuternder Bericht zum Vorentwurf, Verfassungsbestimmung über ein Klima- und Energielenkungssystem [Explanatory Report on the preliminary draft, constitutional provision on a [fiscal] steering system for climate and energy policy], March 2015, p. 19.

4.3.2.3 Mitigation measures in the building sector in particular

- 72. In the building sector that contributes approximately one-third to the Swiss GHG emissions, 77 there is a backlog of refurbishment work:
 - Only one in a hundred houses is renovated for energy-efficiency; only 33% of the realty meets the minimum legal (cantonal) standard; also, there is still no compulsory energy certification of houses, 78 which results in only 2% of the residential buildings having an energy certificate issued by the cantons (Gebäudeenergieausweis der Kantone, GEAK) 79 and the landlords not even being obliged to produce an existing GEAK to their tenants. 80 Accordingly, such information cannot influence decisions about either buying or renting.
 - According to RAIFFEISEN SCHWEIZ, reasons for the renovation backlog lie in, among other things, the complicated procedures that have to be followed for obtaining financial resources, but also insufficient financial resources. ⁸¹ RAIFFEISEN SCHWEIZ also stated that there is a lack of cantonal commitment. ⁸²
 - According to FOEN, cantonal building standards would be an important pillar in the building sector.⁸³ However, these are yet to be passed, in spite of Art 9 CO₂ Act, entered into force on 1 January 2013 and obliging the cantons to adopt such standards "based on the current state of the art" in order to achieve the GHG reduction target of 20% below 1990 levels by 2020. Even minimum measures (basic modules) of the model provisions of the cantons in the energy sector of 2008 (Muster-vorschriften der Kantone im Energiebereich, MuKEn⁸⁴) are not sufficient to comply with Art. 9 CO₂ Act and are only partially implemented in cer-

⁷⁸ RAIFFEISEN SCHWEIZ, Panorama [Customer Magazine of Raiffeisen Schweiz Banks], June 2015, p. 28.

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⁷⁷ FOEN, Buildings, 29 June 2016 (remark regarding the English version: URL has changed, now available at https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate-policy/buildings.html in English).

⁷⁹ Bundesamt für Wohnungswesen BWO [Federal Office for Housing], Prüfbericht: Pflicht der Vermietenden, Mietenden einen vorhandenen Gebäudeenergieausweis der Kantone (GEAK) vorzulegen [Test report: obligation of landlords to provide tenants with an existing building energy certification of cantons] 2015, p. 3.

⁸⁰ Bundesamt für Wohnungswesen (fn. 78).

⁸¹ RAIFFEISEN SCHWEIZ (fn. 78), p. 28.

⁸² RAIFFEISEN SCHWEIZ (fn. 78), p. 29.

⁸³ FOEN, Buildings, 29 June 2016 (remark regarding the English version: URL has changed, now available at https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate-policy/buildings.html in English).

⁸⁴ INFRAS commissioned by the Foderal Office of the Foderal O

⁸⁴ INFRAS, commissioned by the Federal Office for the Environment, Berichterstattung zum Stand der Klimapolitik im Gebäudebereich [Reporting on the status of climate policy in the building sector], July 2015, p. 13.

tain cantons (e.g. Jura⁸⁵). The additional modules of MuKEN 2008⁸⁶ have only been partially put into effect in several cantons. Many cantons are in no hurry to adopt building standards that correspond at least to the revised MuKEn 2014, and thus the "current state of the art".

- The canton of Zurich announced, for example, that it will only start in 2017 with the debate regarding the MuKEn 2014 as it wants to wait for the revision of the Standards of the Swiss society of engineers and architects (SIA) as well as the end of the proceedings of the Energy Strategy of the Confederation expected "at the latest in 2017/2018" (from German).⁸⁷
- Similar the Canton of Aargau: "The canton of Aargau has implemented the model provisions of the cantons (MuKEn 2008) (...).
 Another revision of the [cantonal] Energy Act is appropriate only after the Energy Strategy 2050 [of the Confederation] has been passed (...)." (from German)⁸⁸
- The canton of Jura will adapt its Energy Act to the MuKEn 2014 not before 2021, also considering the SIA standards expected for the coming years.⁸⁹
- The Canton of Schaffhausen currently does not plan to implement the MuKEn 2014; this due to the recent rejection of levy on electricity in a recent referendum.⁹⁰
- In St. Gallen, it is stated: "The preparation of cantonal legislation is scheduled such that the revised Energy Act can be implemented starting in 2020". (from German)⁹¹

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⁸⁵ SFOE, Stand der Energiepolitik in den Kantonen 2016 [State of energy policy in the cantons in 2016], p. 15.

⁸⁶ SFOE (fn. 85), p. 15.

⁸⁷ CANTON OF ZURICH, Beschluss des Kantonsrates des Kantons Zürich KR-Nr. 339/2011 zum Postulat KR-Nr. 339/2011 betreffend Neue MuKEn: Energieeffizienz auch bei Haushaltgeräten [Decision of the Cantonal Council of Canton of Zurich KR-No. 339/2011 to the Postulate KR-No. 339/2011 concerning New MuKEn: energy efficiency also for household appliance], October 2015.

⁸⁸ LEGISLATURE OF THE CANTON OF AARGAU, Strategie Kanton Aargau energieAARGAU [Canton of Aargau strategy energyAARGAU] June 2015, p. 42.

⁸⁹ Canton of Jura, Conception cantonale l'énergie et de plan de mesures 2015–2021 [Cantonal energy conception and action plan, 2015–2021], May 2015 p. 51.

energy conception and action plan, 2015–2021], May 2015 p. 51.

90 ENERGY OFFICES OF THE EASTERN SWISS CANTONS AND THE PRINCIPALITY OF LIECHTENSTEIN, Ostschweizer Energiepraxis [Energy practice in Eastern Switzerland], www.gl.ch/documents/Energie_Praxis_April_2015.pdf, p. 8.

⁹¹ Legislature of the Canton of St. Gallen, Greift kleine Sanierungspflicht in das Eigentumsrecht ein? [Do small remediation requirements impair ownership rights?] Interpellation of Tinner-Wartau etc. from 25 November 2014, written response of the government from 3 February 2015, www.ratsinfo.sg.ch/home/sessionen.Document.8CFF4485-B105-4EED-9C09-19AB083CAA44.risDoc, section 5.

- On the websites of the cantons of Appenzell Innerrhoden⁹², Wallis and Solothurn,⁹³ no information regarding the status of preparations for the implementation of MuKEn 2014 can be found.
- As a result, the building stock is still heated with fossil fuels to a large extent. According to FOEN, this is also shown in current statistical data: In 2015 the emissions from thermal fuels have dropped by 2.8% in comparison to the previous year insufficient according to the reduction path given in Art. 94 CO₂ Ordinance. However, without weather adjustment (i.e. considering the warm winter) emissions rose by 5 percent.⁹⁴
- The desired and necessary effect of the CO_2 levy on thermal fuels (particularly heating oil) is also inadequate. The price of the fuels in the market has substantially declined in 2015: by 30% compared to 2014. In 2016, it has dropped again and then stabilised at a slightly lower level than in 2015. At the same time, due to the higher CO_2 levy, the price rose only by 6% in 2016. The consumers are not driven to change their behaviour by this factual and significant net price reduction of fuels. Tenants whose heating costs are not calculated based on their consumption cannot be steered, even if they wanted to. These findings are important because the steering effect was the goal intended with the CO_2 levy.

Regarding the CO_2 levy's lack of steering effect also in the services sector, see para. 78 below.

Considering the insufficient effectiveness of the measures in the building sector and the CO_2 levy, the CO_2 levy has to be increased regularly. This was the case last for 2016 with an increase to CHF 84.00 because the CO_2 emissions from thermal fuels in 2014 were at 78.5% rather than below 76% as in 1990 (cf. specification of Art. 94 para. 1 let. b no. 2 CO_2 Ordinance). The CO_2 emissions from thermal fuels were thus much too high. The fact that the CO_2 emissions were too high with a 2.5% deviation can be con-

 $^{^{92}}$ According to information provided via telephone by Mr ETTER on 3 November 2015, the Landsgemeinde (public assembly of all persons eligible to vote in this canton) must vote on the adaptation of the cantonal energy legislation in 2018. The reason for the late implementation is staff overload.

⁹³ Searched all relevant online portals.

 $^{^{94}}$ FOEN, CO $_2$ -Emissionen im Jahr 2015 [CO $_2$ emissions in 2015], 11 July, 2016, .

⁹⁵ Cf. Heizöl 24, www.heizoel24.ch/heizoelpreise.

⁹⁶ TAGESANZEIGER, Hausbesitzer kaufen Öl zum Schnäppchenpreis [Homeowners buy heating oil at bargain prices], Tagesanzeiger of 22 September 2015.

at bargain prices], Tagesanzeiger of 22 September 2015. ⁹⁷ FOEN, Reduktionsziel 2014 nicht erreicht: CO_2 -Abgabe auf Brennstoffe wird 2016 erhöht [2014 reduction target not achieved: CO_2 levy on fuels will be increased in 2016], 3 July 2015 www.news.admin.ch/message/index.html?lang=de&msg-id=58016.

cluded based on the prescribed narrow reduction steps for CO_2 emissions from thermal fuels (Art. 94 para. 1 let. a and b CO_2 Ordinance):

- 2014: In 2012, the CO_2 emissions from thermal fuels must be 79% below 1990 levels
- 2016: In 2014 the CO_2 emissions from thermal fuels must be 76% below 1990 levels or the levy will be increased to CHF 72. The levy will be increased to CHF 84.00, if CO_2 emissions from thermal fuels are not below 78% of the 1990 levels.

4.3.2.4 Mitigation measures in the transport sector in particular

In the transport sector ["traffic sector" in the non-binding federal translation of the CO_2 Act and CO_2 Ordinance], which contributes 33.2% [2014: 31.1%] to Swiss greenhouse gas GHG emissions without taking into account international flights, the import of cars, which exceed the currently relevant target of 130 g CO_2 /km is not prohibited; the target must be met with the average of the entire vehicle fleet. Not meeting the target leads to financial sanctions. The effectiveness of this measure is limited because it applies to new cars and to average values and does not sufficiently take into account the real fuel consumption. [100]

Even assuming that the information provided by the manufacturer would correspond with the actual fuel consumption, 77% of the official car importers already satisfy the target "without having to change their import and vehicle selling policy fundamentally" (from German). Nevertheless, the target was not achieved in 2015: Instead of 130g CO₂/km, passenger cars newly registered in Switzerland in 2015 emitted average CO₂ emissions of 135g CO₂/km. In addition, fines paid by the car importers are not used for climate protection measures, but rather flow into the infrastructure

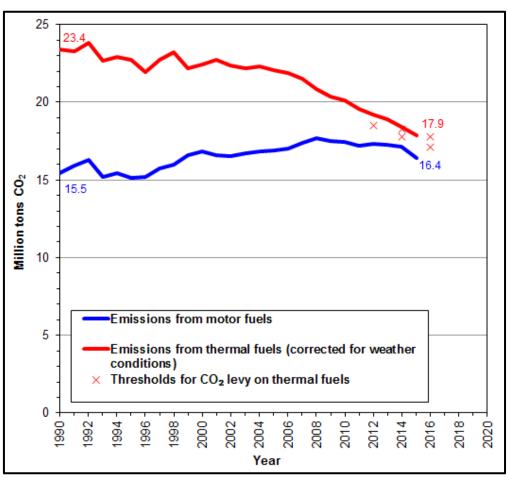
P8 FOEN, Emissionen von Treibhausgasen nach revidiertem CO2-Gesetz und Kyoto-Protokoll, 2. Verpflichtungsperiode (2013–2020) [emissions of greenhouse gases under the revised CO₂ Act and the Kyoto Protocol, second commitment period (2013–2020)], 11 July 2016, p. 17. POEN, Emissionen von Treibhausgasen nach revidiertem CO2-Gesetz und Kyoto-Protokoll, 2. Verpflichtungsperiode (2013–2020) [emissions of greenhouse gases under the revised CO₂ Act and the Kyoto Protocol, second commitment period (2013–2020)], 11 July 2016, p. 17. Dupuis Johann/Knoepfel Peter/Schweizer Rémi/Marchesini Mario/Du Pontavice Marie/Walter Lionel, La politique suisse de réduction des émissions de gaz à effet de serre : une analyse de la mise en œuvre [Switzerland's policy to reduce greenhouse gas emissions : an implementation analysis] / Rapport à l'intention de l'Office fédéral de l'environnement (OFEV) [Report to FOEN], Lausanne IDHEAP, Université de Lausanne, 2016, p. 9.

¹⁰² SFOE, Verbrauch von Neuwagen lag 2015 bei 5.84 Liter pro 100 Kilometer [consumption of new cars was 5.84 litres per 100 kilometres in 2015], 16 June, 2016, www.bfe.admin.ch/energie/00588/00589/00644/index.html?lang=de&msg-id=62210.

fund, which partially finances road projects. This is not only inconsistent but also counterproductive. 103

Due to the absence of effective measures in the transportation sector, the GHG emissions from motor fuels have ultimately increased in contrast to the 1990 levels as shown by the graph below. The short-term reduction of motor fuel emissions by 4.3 percent that took place since 2014 is not to be attributed to effective measures, but to a considerable extent to the decrease in fuel tourism due to the strong Swiss franc (decrease in fuel tourism with motorists from abroad buying petrol in Switzerland and increase in fuel tourism with Swiss motorists buying diesel in neighbouring countries). 104

CO₂ statistics: Emissions from motor and thermal fuels



Source: FOEN, 3 July 2015 (remark regarding the English version: URL has changed, now available in English at

https://www.bafu.admin.ch/bafu/en/home/topics/climate/state/data/co2-statistics.html)

¹⁰⁴ FOEN, CO₂ emissions in 2015, 11 July 2016, www.admin.ch/gov/de/start/dokumen tation/medienmitteilungen.msg-id-62592.html.

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 $^{^{103}}$ Dupuis et al. (fn. 100), p. 10.

4.3.2.5 Other areas and mitigation measures

An example here: A recently published study commissioned by FOEN came to the conclusion that the currently existing measures under the CO₂ Act are *preponderantly inadequate* in terms of their effectiveness:

Diagnosis of the effectiveness, efficiency and desirability of the instruments of climate policy¹⁰⁵ (translated from the German original)

	CO ₂ guidelines for tourist vehicles	Building program	CO ₂ levy in service sector
Efficiency	Area of norms too limited CO2 standards are often not visible; the consumer is hardly influenced Limited influence on the official car import market	Problematic decrease in the percentage of renovations by private persons, who own the largest number of properties that have to be renovated. No influence on the jurisdic in the area of energy consumption on part of the resident/tenant of the renovated property	Weak direct incentive of the CO2 levy. The large realty firms benefit disproportionately from the refunds of the CO2 levy. Invisibility and ineffectiveness of the CO2 levy regarding consumer behaviour
Effectiveness	The CO2 reduction levels pronounced by the manufacturers, the transition measures and the possibility to compensate for the emissions of the environmentally damaging vehicles reduce effectiveness of the norms. The official importers' room for manoeuvre is limited because of their dependence on the manufacturers. The parallel importers can circumvent the standards.	The expected reduction of CO2 emissions is not necessarily achieved especially it the heating system has not been correctly adjusted after the renovation. The reduction effect of the amounts disbursed for building shell renovation that are associated with luxury renovation are lower than expected. There is a risk that in line with the renovation of the energy system, the energy supply area per person will be increased. The effectiveness would be higher if the promotional measures were coupled with an energy balance sheet and a reduction of the heating demand	The main components of the climate load of service-providing firms are not affected by the CO2 levy. The redistribution system of the levy's yield does not promote the most innovative strategies in the area of CO2 reduction. The coordination with reduction commitments, as well as other instruments in the area of environmental policy can be further improved.

4.3.2.6 Not or insufficiently regulated CO₂-relevant areas

As shown in Section 4.3.2.1, the effectiveness of the mitigation measures taken is not sufficient, in all probability, to achieve the 20% target (which will become clear at the earliest in 2020), and the 20% target is also too

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 $^{^{105}}$ Dupuis et al. (fn. 100).

low by at least 5 percentage points. Thus it appears important to use a few examples to demonstrate which potential mitigation measures that have not been taken yet have and which sectors are still relatively untouched by climate protection measures. This shall show in particular that there is no room for justification of a breach of the obligation to protect based on the argument of "absence of appropriate GHG reduction measures" (see s. 5.4.2.1 below).

a. **Transportation**

- 80. In the *transportation sector*, one could reduce *additional* GHG emissions with a motor fuel levy.
- In addition unlike in neighbouring countries electromobility is not promoted; the Federal Council considered "a separate strategy and an action plan for electric mobility unnecessary" (from German). Measures had already been initiated as part of the Energy Strategy 2050, with financial contributions for research and development (Swiss Competence Centre for Energy Research SCCER), for pilot, demonstration and so-called lighthouse projects, for information and services (EnergieSchweiz), and for exemplary efforts of the Confederation (resource and environmental management of the federal administration RUMBA), and the adjustment of CO₂ emission standards for passenger cars. Measures had already services and environmental management of the federal administration RUMBA), and the adjustment of CO₂ emission

b. **Agriculture**

The agricultural sector has also remained untouched by mitigation measures to a great extent even until today, although it contributes significantly to global warming with 13.6% of emissions¹⁰⁸ (2014: 12.3%¹⁰⁹). The Confederation does have a "climate strategy for agriculture", but it does not go beyond non-binding objectives, visions and the description of possible areas of action.¹¹⁰ For example, in spite of the new Art. 2 para. 1(b^{bis}) of the Agricultural Act (AgricaA), it does not appear that the climate-friendly pro-

¹⁰⁸ FOEN (fn. 99), p. 17.

¹⁰⁶ SFOE, Bundesrat legt Bericht zur Elektromobilität vor [Federal Council presents a report on electric mobility], 13 May 2015, www.bfe.admin.ch/energie/00588/00589/00644/index.html?lang=de&msg-id=57245.

¹⁰⁷ SFOE (fn. 106).

¹⁰⁹ FOEN (fn. 99), p. 17.

FOAG, Klimastrategie Landwirtschaft 2011[Climate Strategy for Agriculture 2011], www.news.admin.ch/NSBSubscriber/message/ attachments/23213.pdf.

duction were a relevant factor affecting the so-called direct payments (subsidies), according to the regulations under the Agric Act. This said, the largest reduction potentials exist in "food and consumption patterns" (from German)¹¹¹ (especially in the reduction of the consumption of meat products¹¹²), which has remained completely unnoticed so far in Switzerland.¹¹³ For the EU, it was calculated that under consideration of the external costs of meat production at EUR 60 per tonne of CO_2 eq and corresponding taxation of greenhouse gas emissions from meat products, GHG emissions from agriculture could be reduced by 7%.¹¹⁴

4.3.3 Insufficient 2020 emission reduction target

Switzerland has to reduce its GHG emissions to 20% below 1990 levels by 2020 according to Art. 3 para. 1 CO_2 Act. This objective does not correspond with the 2°C,¹¹⁵ which would require a reduction of at least 25% (to 40%) (ss. 4.2.2.2 and 4.3.1).

4.3.4 Insufficient mitigation measures to achieve a sufficient emission reduction target of at least 25%

84. From the failure to work towards a sufficient climate target, thus failing to reduce greenhouse gas emissions by at least another 5%, and from the omission to take all necessary measures for a 20% target, it can be concluded that mitigation measures necessary for an increase in the greenhouse gas reduction by an additional 5% are also missing.

¹¹³ See also Bähr Cordelia C., Greenhouse Gas Taxes on Meat Products: A Legal Perspective, Transnational Environmental Law 2015 153 as well as Vaughan Adam, UN expert calls for tax on meat production, 25. Mai 2016,www.theguardian.com/environment/2016/may/25/un-expert-calls-for-tax-on-meat-production.

WIRSENIUS STEFAN/HEDENUS FREDRIK/MOHLIN KRISTINA, Greenhouse Gas Taxes on Animal Food Products: Rationale, Tax Scheme and Climate Mitigation Effects, Climatic Change 2011 159, p. 173.

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¹¹¹ Bretscher Daniel/Leuthold Sabrina, Treibhausgasemissionen in Zusammenhang mit Landwirtschaft und Ernährung [Greenhouse gas emissions associated with agriculture and nutrition], November 2013, p. 38.

BRETSCHER/LEUTHOLD (fn. 111), p. 37.

p. 173.

115 So explicitely OcCC - Organe consultatif sur les changements climatiques, Klimaziele und Emissionsreduktion [climate targets and emissions reduction], Bern 2012, p. 5.

4.3.5 Insufficient 2030 emission reduction target

As shown above, the domestic reduction target of 30% below 1990 levels by 2030 as proposed in the preliminary legislative procedure is clearly not sufficient to achieve the 2°C target, and certainly not for the achievement of the "well below 2°C" target (s. 4.2.2.2). The purchase of foreign emission reductions is, as shown, not a viable option, but rather delays reduction efforts that Switzerland must come up with on the medium term, and thus Switzerland runs a high risk of deviating from the 2°C path and even more from the "well below 2°C" path (s. 4.2.3 below).

4.3.6 Conclusion

- The current and the planned reduction targets do not correspond with the emission reductions necessary according to IPCC. Also, the current mitigation measures to achieve the currently applicable reduction target are not sufficiently effective and rather incomplete. Furthermore, due to the absence of appropriate objectives, there are no mitigation measures to contribute to achieving the 2-degree target and the "well below 2°C" target by 2020 and 2030.
- As will be shown, the Confederation thereby violates its obligations to protect the Applicants arising from Art. 10 para. 1 Const. as well as Art. 2 and 8 ECHR.

4.4 Particularised effect of failure in emission reductions on the lives and health of the Applicants

4.4.1 Everyday life of older women in hot summers

- 88. Not everyone is equally affected by the consequences of excessive global warming, namely by heatwaves. In Switzerland, the excessive warming negatively has particular affects on a highly vulnerable population group: the group of older women, to which the Applicants belong. In hot spells, older women are the ones who:
 - die prematurely;
 - suffer health conditions such as heart and circulatory problems, high blood pressure, increased heart and respiratory rates, dehydration, hyperthermia, exhaustion, fainting, heat cramps and heat stroke;

- are medically recommended not to leave their home and instead spend the day in a darkened room,¹¹⁶ with corresponding effects on their overall well being and health and the maintenance of social contacts. Just imagine an 85-year-old woman who cannot go outside for several weeks: How well will she be able to move around at all in autumn? Will she still have the strength to walk around properly again? As can be seen from the medical certificates, Applicants 2, 3 and 4 suffer strongly during periods of heat.

While the majority of society enjoys the sun, the term "fine weather" has, in recent years, changed for older women, who now associate additional burdens and restrictions with it.

4.4.2 Results of scientific studies

4.4.2.1 Mortality of women over 75 years of age in hot summers

- The adverse effects perceived by the Applicants in periods of heatwaves are confirmed by scientific studies, especially studies concerning the deaths in the hot summer of 2003. Considering the hot summer of 2003, one can illustrate what also applies to the hot summers of 2015 and 2016 and to further heatwaves that will, depending on the development of emissions, occur more frequently in the future. The details:
- 90. The deaths are not randomly distributed across the population, but occur much more frequently in older persons. 117 The IPCC states:

The extreme heat wave in Europe in 2003 led to numerous epidemiological studies. Reports from France (...) concluded that **most of the extra deaths occurred in elderly people (80% of those who died were older than 75 years).** ¹¹⁸ (emphasis added)

The Federal Office of Public Health (FOPH) and FOEN also confirm the statistical finding that elderly people are most affected by the heat with regard to mortality and health impairments (translated from the German original):

¹¹⁶ FOPH AND FOEN, Schutz bei Hitzewelle, Vorsorge treffen – Todesfälle verhindern [protection against heatwaves, taking precautions – preventing deaths], Bern, 2007, p. 4 ("Goldene Regeln für Hitzetage" ["Golden Rules for hot days"]).

¹¹⁷ FOPH AND FOEN, Schutz bei Hitzewelle, Vorsorge treffen – Todesfälle verhindern [protection against heatwaves, taking precautions – preventing deaths], Bern, 2007.

¹¹⁸ SMITH KIRK R./ WOODWARD ALISTAIR/ CAMPBELL-LENDRUM DIARMID, CHADEE DAVE D./ HONDA YASUSHI, LIU QIYONG, OLWOCH JANE M./REVICH BORIS/SAUERBORN RAINER, 2014: Human health: impacts, adaptation, and co-benefits, in: Climate Change 2014: Impacts, Adaptation, and Vulnerability, Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, USA, 709-754, p. 721.

Particularly in the elderly,(...) the cardiovascular system and the water balance are quickly overburdened, blood pressure, heart and respiratory rates rise. Dehydration, hyperthermia, fatigue, loss of consciousness, heat cramps and heat stroke are consequences of this disturbed heat regulation. **Elderly people** are most **severely affected** by the heatwaves. Most heat-related deaths occur due to cerebral vessel, cardiovascular and respiratory tract diseases.¹¹⁹ (Emphasis added)

91. Within this age group, women are affected more than men.¹²⁰ During the hot summer of 2003, 65% of heat-related deaths were seen in women¹²¹ and women with respiratory diseases were affected more than those without.¹²²

Older women are exposed to a greater risk associated with heat due to age and sex than the general population: For example, the death rate among women in France increased by 21% on 12 August 2003 compared to the normal case: 123

119 FOPH AND FOEN (fn. 117), p. 3.

ROBINE et al. (fn. 6); THOMMEN DOMBOIS OLIVER /BRAUN-FAHRLÄNDER CHARLOTTE, Gesundheitliche Auswirkungen der Klimaänderung mit Relevanz für die Schweiz, Literaturstudie im Auftrag der Bundesämter für Umwelt, Wald und Landschaft (BUWAL) und für Gesundheit (BAG) [Health effects of climate change with relevance for Switzerland, literature study on behalf of FOEN and FOPH], November 2004, p. 33.

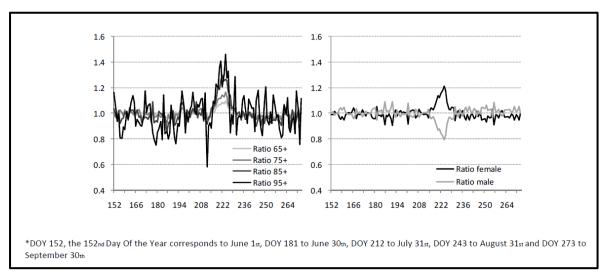
ROBINE JEAN-MARIE/ CHEUNG SIU LAN/ LE ROY SOPHIE/ VAN OYEN HERMAN/GRIFFITHS CLARE/MICHEL JEAN-PIERRE/HERRMAN FRANÇOIS R, Death toll exceeded 70,000 in Europe during the summer of 2003, C. R. Biologies 331 (2008) 171–178, p. 174, www.sciencedirect.com/science/article/pii/S1631069107003770.

pii/S1631069107003770.

122 D'Ippoliti Daniela/Michelozzi Paola/Marino Claudia/de'Donato Francesca/Menne Bettina/Katsouyanni Klea/Kirchmayer Ursula/Analitis Antonis/Medina-Ramón Mercedes/Paldy Anna/Atkinson Richard/Kovats Sari/Bisanti Luigi/Schneider Alexandra/Lefranc Agnès/Iñiguez Carmen/Perucci Carlo A., The impact of heat waves on mortality in 9 European cities: results from the EuroHEAT project, Environmental health: a global access science source 2010 37, p. 1.

123 Robine et al. (fn. 6).

Distortion of the death structure by age and gender in France during summer 2003*



Source: JEAN-MARIE ROBINE/SIU LAN CHEUNG/SOPHIE LE ROY/HERMAN VAN OYEN/FRANCOIS R. HERR-MANN, Report on excess mortality in Europe during summer 2003, February 2007, figure 5.

Women suffer from the heat more than men for physiological reasons; they withstand up to 6°C less heat and perspire less. ¹²⁴ It has been shown statistically that older women are exposed to *twice the mortality risk* (age and sex).

This was confirmed by another study, which also shows that *elderly women* between 75 and 84 years with respiratory diseases are affected threefold:

"The highest effect was observed for **respiratory diseases** and **among** women aged 75–84 years."¹²⁵ (emphasis added)

93. Correspondingly, the Federal Statistical Office stated in a media release on25 February 2016 (from German):

More deaths among the elderly because of the flu season and hot summer: In women (+5.6%) the increase was higher than among men (+4.7%). The affected people primarily included those aged 65 and above, with an increase by 6.0 percent compared to 2014. The wave of flu at the beginning of the year as well as

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¹²⁵ D'IPPOLITI et al. (fn. 122), p. 1.

Denise Jeitziner, Also doch: Frauen sind schmerzempfindlicher als Männer [After all: women are more sensitive to pain than men], Tages-Anzeiger, 4 May 2010, www.tagesanzeiger.ch/leben/gesellschaft/Frauen-sind-wehleidiger-als-Maenner/story/-15122163; Schaffner Nils/Wittwer Amrei/Kut Elvan/Folkers Gerd/Benninger David H./Candia Victor, Heat pain threshold and tolerance show no left-right perceptual differences at complementary sites of the human forearm, Neuroscience Letters 440 (2008) 309–313, p. 312 and figure 2; Shapiro Yair/Pandolf Kent B./Avellini Barbara A./Pimental Nancy A./Goldmann Ralph F., Physiological responses of men and women to humid and dry heat, Journal of Applied Physiology Published 1 July 1980 Vol. 49 no. 1, 1–8, p. 1; Morimoto T./Slabochova Z./Naman R. K./Sargent F. 2nd, Sex differences in physiological reactions to thermal stress, Journal of Applied Physiology, Published 1 March 1967 Vol. 22 no. 3, 526-532, p. 526.

the heat wave in July affected the elderly in particular and led to an increase in the number of deaths. ¹²⁶ (Emphasis added)

94. Also the World Health Organisation (WHO) declared that older women are more affected by heatwaves than men:

For example, it is estimated that a **2°C** rise would increase the annual death rate from heatwaves in many cities by approximately twofold. (...) the majority of European studies have shown that women are more at risk, in both relative and absolute terms, of dying in such events (...). There may be some physiological reasons for an increased risk among elderly women (...). ¹²⁷

95. Eventually, it has been proved that the deaths during heatwaves cannot be attributed to a so-called harvesting effect (from German):

If the so-called 'harvesting effect' – the premature death of people who are already seriously ill – was significant, the mortality rate would have fallen below the long-term average value following the heat wave. The number of deaths, however, remained high after the end of August.

Thus, a large number of people died whose death would not have been expected in the following weeks without the heat effect. 128 (Emphasis added)

4.4.2.2 The predicted increase in hot summers

96. Summers like the one in 2003 will be seen more often¹²⁹ – as illustrated by the summers of 2015 and 2016. In 2005, Swiss climate researchers modelled that in Europe, in about 70 years, heatwaves of the same magnitude as the 2003 one are to be expected every second year if global warming is not adequately addressed – the hot summer of 2003 would become an average summer. They concluded that the probability of even hotter summers would therefore also rise significantly.¹³⁰

¹²⁷ WHO, Gender, Climate Change and Health, Geneva 2010, p. 9, www.who.int/globalchange/Gender ClimateChangeHealthfinal.pdf.

¹²⁶ FSO, Media releases of 25 February 2016, Mehr Todesfälle bei älteren Menschen wegen Grippewelle und Hitzesommer [more deaths among the elderly because of flu and hot summer], www.bfs.admin.ch/bfs/portal/de/index/news/medien mitteilung-en.html?pressID=10700.

¹²⁸ ProClim-Forum for Climate and Global Change, Hitzesommer 2003, Synthesebericht [Heat wave of 2003, Synthesis report], Bern 2005, p. 16.

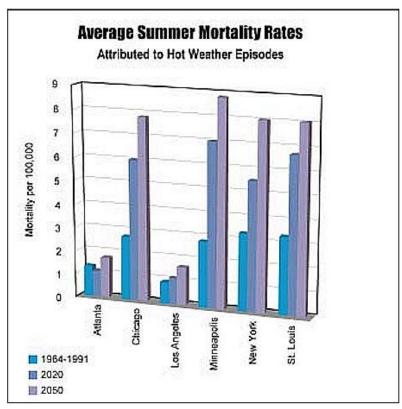
¹²⁹ FOPH AND FOEN (Fn. 117), p. 1; FOEN, Der Klimawandel ist bereits sichtbar [Climate change is already visible], 14 July 2016 (remark regarding the English version: URL has changed, now available at

https://www.bafu.admin.ch/bafu/de/home/themen/klima/dossiers/klimakonferenz-cop21-von-paris--abkommen-ueber-die-international/der-klimawandel-ist-bereits-sichtbar.html).

130 ProClim-Forum for Climate and Global Change, Hitzesommer 2003, Synthesebericht [Heatwave of 2003, Synthesis report], Bern 2005, p. 16.

- 97. Not only are the numbers of hot summers increasing, but also their duration: If temperatures rise by 4°C, the number of days warmer than 25°C would rise threefold to 100 per year. 131
- Based on an American study¹³² the expected average summer mortality rate 98. per 100,000 inhabitants for the years 2020 and 2050 in six North American cities was calculated as follows: 133

This figure shows that the deaths related to climate change will significantly rise.



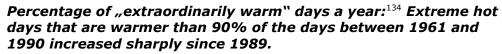
Source: Thommen Dombois Oliver / Braun-Fahrländer Charlotte, Gesundheitliche Auswirkungen der Klimaänderung mit Relevanz für die Schweiz, Literaturstudie im Auftrag der Bundesämter für Umwelt, Wald und Landschaft (BUWAL) und für Gesundheit (BAG) [Health effects of climate change with relevance for Switzerland, literature study on behalf of FOEN and FOPH], November 2004, p. 27.

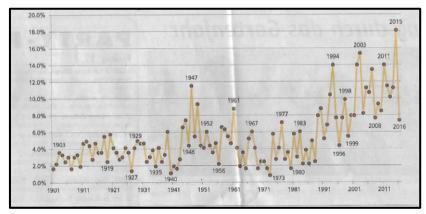
The past trend regarding days of extreme heat in Zurich is shown in the 99. graph below:

¹³¹ FOEN (fn. 129).

¹³² KALKSTEIN LAURENCE S./GREENE SCOTT J., An evaluation of climate/mortality relationships in large U.S. cities and the possible impacts of a climate change. Environ. Health Perspect. 1997 105 (1), 84-93.

¹³³ Thommen Dombois/Braun-Fahrländer (fn. 120), p. 27.





4.4.3 The study results in the Applicants' reality

- In the light of the foregoing, the Applicants clearly belong to a population 100. group with the highest risk of heat-related death. In the hot summer of 2003, around 1000 additional deaths occurred in Switzerland, for example. 135 Among these deaths, women older than 75 must clearly have been more numerous than other population groups.
- Unlike earthquakes (occurrence every few hundred years) or nuclear power 101. plant accidents (occurrence every few tens of thousands of years), global warming is occurring here and today. Climate-related heatwaves are definitely occurring and with greater frequency. 136 Hence an increase in the occurrence of heat-related deaths has to be dealt with, based on the increased probability.

The Applicants experience adverse health effects. Applicant 2, for example, suffered a loss of consciousness resulting from a heat wave in the summer of 2015. 79 years old Applicant 3 suffered strongly during the last two hot summers; she has a cardiovascular illness and heatwaves strongly impaired her physical performance. 75 years old Applicant 4 has to endure more acute asthma and chronic obstructive pulmonary disease (SOPD) during heatwaves. Furthermore, due to their asthma, Applicants 4 and 5 are not

¹³⁴ ROSSER SILVAN, Extrem warme Tage nehmen deutlich zu [Extremely warm days are clearly increasing], 10 August 2016.

¹³⁵ FOPH AND FOEN (fn. 117), p. 1.

¹³⁶ FEDERAL OFFICE FOR CIVIL PROTECTION FOCP, Welche Risiken gefährden die Schweiz? Katastrophen und Notlagen Schweiz 2015 [Which risks pose a danger to Switzerland? Disasters and emergencies Switzerland 2015], www.newsd.admin.ch/newsd/message/ attachments / 40200.pdf, p. 13.

only individually affected but also belong to the population group that is affected threefold in times of great heat (para. 92).

во	•	Medical certificate of Applicant 2 dated November	Exhibit 12
		15, 2016	

- Medical certificate of Applicant 3 dated October *Exhibit 13* 19, 2016
- Medical certificate of Applicant 4 dated October Exhibit 14
 7, 2016
- Medical certificate of Applicant 5 dated October Exhibit 15
 4, 2016
- The mortality consequences, the impairment of health and well being as well as the probability of being affected by one of these consequences will increase several times for the Applicants due to the predicted rise in *frequency* and *duration* of heatwaves.
- Therefore the Applicants have a very specific interest that sufficient mitigation measures are taken in matters related to climate change so that the situation, which is already stressful for them, does not become worse. Thus, they demand that everything be done to meet the 2°C target, and that the "well below 2° C" target is not thwarted. They request this of the Swiss Confederation, because they reside in Switzerland and the Confederation is therefore obliged to provide for their protection. The Applicants are aware that climate change is a global problem and therefore all other countries are also obliged to observe their duties to protect their populations so that the excessive warming with the aforementioned consequences can actually be avoided. However, each country is fully responsible for its own actions. And the Confederation is currently not fully complying with this responsibility towards the Applicants, as shown below.

5. Does Switzerland comply with the constitutional and international legal requirements regarding climate legislation?

5.1 International law

An internationally wrongful act occurs when a state violates international obligations as the result of an action or omission. The requirements arise in particular from the Draft Articles on Responsibility of States for Internation-

ally Wrongful Acts,¹³⁷ which illustrate the customary international law binding all states.

A breach of international obligations can arise from Art. 4.2 in conjunction with Art. 2 UNFCCC and the "no-harm rule" (details provided in para. 110).

Obligations regarding the reduction of GHG arise from both requirements:

According to Art. 4.2 UNFCCC Annex I states like Switzerland must take action to reduce their GHG emissions. In this provision, when read together with Art. 2 UNFCCC, various authors see a binding obligation for these countries to abide by the 2°C target. 138

The new target of limiting global warming to "well below 2°C (Art. 2 para. 1(a) Paris Agreement) can also be understood in this sense. Because according to Art. 18(a) of the Vienna Convention on the Law of Treaties, a state is obliged to *refrain from acts which would defeat the purpose and objective of a treaty, provided that it has signed the treaty under reserve of ratification*. ¹³⁹ This applies even more for the period after ratification. In addition, Article 26 of the Vienna Convention demands that treaties – in our case the goal to prevent anthropogenic interference with the climate system – are performed in good faith.

It also derives from Art. 18(a) of the Vienna Convention on the Law of Treaties that Switzerland is required *today* to reduce GHG emissions to such an to correspond with the objective of keeping global warming *well below* 2°C and to strive to meet the 1.5°C target. Otherwise, Switzerland's contribution to the global "well below 2°C" target, as well as the 2°C target would virtually be irreversibly thwarted (para. 4.2.3 below). This means *a fortiori* that a domestic reduction path of at least 25% (to 40%) by 2020 and at least 50% by 2030 must be observed. In addition, each state's emission reduction target has to *reflect its highest possible ambition* (Art. 4.3 Paris Agreement). Switzerland is obviously failing. The evidence: the option of increasing the national ambition to 40% in Art. 3 para. 2 CO₂ Act and the

¹³⁷ [In the German original this footnote provided the English title by which this document of international law is known.]

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VOIGT CHRISTINA, State Responsibility for Climate Change Damages, Nordic Journal of International Law 2008 1, p. 6; Werksman Jacob David, Could a Small Island Successfully Sue a Big Emitter? Pursuing a Legal Theory and a Venue for Climate Justice, in: Gerrard Michael B./Wannier Gregory E. (eds.), Threatened Island Nations, Cambridge 2013, p. 416; Sprinz Detlef/Von Bünau Steffen, The Climate Compensation Fund for Climate Impacts, Weather, Climate, and Society 5:210-220 2013 210, p. 212.

¹³⁹ Paragraph 51 of the decision to the Paris Agreement does not change anything regarding exclusion of liability and compensation, but rather relates only to Art. 8 (Warsaw International Mechanism for Loss and Damage) of this Convention, see Conference of the Parties to the UNFCCC (fn. 66).

proposal included in the dispatch, but not implemented in the draft, showing how a 30% target could be reached. 140 Regarding 2030, the Respondents even suggest to lower the ambition for domestic reductions compared to 2020 (s. 4.2.3 below). The explanatory report [to the new climate legislation that is under consultation] states explicitly that in the period after 2020, domestic emissions shall be reduced in large parts only through the reference development (i.e. a development without additional mitigation measures!)¹⁴¹ and with the current (inadequate!) measures.¹⁴² In other words: The Respondents are planning to mainly rely on the status quo and to purchase emission reductions from abroad instead of making their own efforts. Emission reductions that foreign countries will need for themselves over the medium term, and that Switzerland has to deliver by itself as of now if the global objective of avoiding a dangerous climate change is to be achieved.

107. Neither the Kyoto Protocol nor the Doha amendment to the Kyoto Protocol laid down an emission reduction target of 25% (to 40%) below 1990 levels regarding Switzerland's second commitment period through 2020.

Yet, it cannot be concluded that the reduction obligation would not exist based on Art. 4.2, in conjunction with Art. 2 UNFCCC. After all, the Kyoto objectives are only a minimum consensus of the States listed in Annex B of the Kyoto Protocol. This consensus is solely a result of political negotiations and not based on calculations, such as to how much a country must contribute to the 2°C target, or on a legal basis. 143 The Kyoto Protocol and the Doha amendment only show how much emission reduction an Annex B State wants to achieve. 144 Accordingly, the States were requested to reconsider their reduction targets by the Conference of the Parties (see quote in para. 59).

108. In other words, the UNFCCC as a framework convention is not changed, replaced, or limited regarding the required emission reductions by the Kyoto Protocol. This means in particular that, to comply with international obli-

¹⁴⁰ BBI 2009 7433, 7480.

¹⁴¹ DETEC, Klimapolitik der Schweiz, Erläuternder Bericht zur Vernehmlassungsvorlage [Climate policy of Switzerland: Explanatory Report on the draft for consultation], 31 August 2016, p. 28.

¹⁴² DETEC (fn. 141), p. 3.

¹⁴³ Verheyen Roda, Climate Change Damage and International Law: Prevention Duties and State Responsibility 2005, p. 110; BARTON PHILLIP, State Responsibility and Climate Change: Could Canada be liable to Small Island States?, Dalhousie Journal of Legal Studies 2002 65, p. 81. ¹⁴⁴ Werksman (fn. 138), p. 421.

gations, every Annex I State, and thus Switzerland as well, is required to make an adequate contribution to the achievement of the 2°C target¹⁴⁵ even in if the contribution differs from the framework of the Kyoto Protocol or the Doha Amendment.¹⁴⁶

- Nothing different applies for the period through 2030, as well as the INDCs and the NDCs under the Paris Agreement. These only represent national intentions. Whether the NDCs correspond with the "well below 2° C" target, is not examined by the bodies of the UNFCCC. This does not mean, however, that they do not have to correspond with the "well below 2° C" target».
- The "no-harm rule" as part of customary international law obliges every

 State to refrain from inflicting any environmental damage to other states. 147

 The standard of care to be applied 148 is arguably also based (at least) on the 2°C target 149 or, after Paris, the "well below 2° C" target.
- 111. Conclusion: At the international level, there are, therefore, different links/connecting factors, all of which lead to the conclusion that Switzerland is obliged not only concerning its own citizens (s. 5.4 ff.) but also with regard to other States to achieve a reduction of greenhouse gases that is judged by the "well below 2°C" target, while pursuing efforts to meet the 1.5°C target.

5.2 Insufficient compliance with the sustainability principle (Art. 73 Const.)

In an implicit reference to the definition of sustainability according to the Brundtland Commission, 150 the Federal Constitution mentions sustainable

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 $^{^{145}}$ Or of the "well below 2°C" target or the 1.5°C target; cf. Tschakert Petra, 1.5°C or 2°C: a conduit's view from the science-policy interface at COP20 in Lima, Peru, Climate Change Responses 2015 1.

 $^{^{146}}$ Confirmed in *Urgenda Foundation v. The State of the Netherlands* C / 09/456 689 / HA ZA 13-1396 of 24 June 2015, para. 2:35 ff. and 4.84.

¹⁴⁷ Cf. Percival Robert V., International responsibility and liability, in: Alam Shawkat/Hossain Bhuiyan, Md Jahid/Chowdhury M. Tareq/Techera Erika J. (Eds.), Routledge Handbook of International Environmental Law, Abingdon 2013, p. 684; the "no-harm rule" can be attributed to *Trail Smelter Arbitration*, see Trail smelter case (United States, Canada) 04/16/1938 und 03/11/1941.

¹⁴⁸ Jervan Marte, The Prohibition of Transboundary Environmental Harm. An Analysis of the Contribution of the International Court of Justice to the Development of the No-harm Rule, PluriCourts Research Paper No. 14-17 2014, p. 62 f.

VERHEYEN (fn. 143), p. 191.
 Cf. MADER LUZIUS, Die Umwelt in neuer Verfassung? Anmerkungen zu umweltschutzrelevanten Bestimmungen der neuen Bundesverfassung [The environment in a new condition? Remarks concerning new environmental protection provisions of the new Federal Constitution], URP 2000 105, p. 110.

development as one of the purposes of the Confederation in Art. 2 para. 2. This concept is closely linked to the long-term assurance of a natural environment in terms of Art. 2 para. 4 Const.¹⁵¹ This in turn has general significance for the existence of a liveable society;¹⁵² the Federal Council stated that a (translated from German) "state community is not viable in the long run in an exploited and damaged environment."¹⁵³

Although these provisions contain neither specific instructions nor legislative mandates or constitutional rights, they are still a "legally binding action guideline"¹⁵⁴ and have "programmatic significance" (translated from German). They underline that the state, overall, shall act sustainably. Thus, on the one hand, they are a *binding* mandate for the legislative and executive bodies, albeit with a substantial freedom to act on part of the authorities. On the other hand, they are to be referred to when interpreting constitutional norms in the application of law. The goal of long-term preservation of natural resources is equal to the other objectives, in particular the promotion of common welfare (Art. 2 para. 2 Const.) and has to be weighed against these other objectives.

The 4th section "Environment and Spatial Planning" in the 2nd Chapter of the 3rd Title of the Constitution regarding the duties of the Confederation starts with *Art. 73 Const.* under title "Sustainable development". Even if this provision must be understood – similarly to the purposes of Art. 2 para. 2 and 4 Const. – in a programmatic sense (within the meaning of Art. 164 para. 1(b) Const.), it still expresses an "emphatically" wanted constitutional principle. This principle is associated with a *mandate* to the Confederation and cantons¹⁵⁹ or – in other words – is to be considered as *a trendsetting* value-

¹⁵¹ Cf. Belser Eva Maria, Art. 2 Const. Rn. 17, in: Waldmann Bernhard (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

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¹⁵² EHRENZELLER BERNHARD, Art. 2 Const. N 24, in: EHRENZELLER BERNHARD/SCHINDLER BENJA-MIN/SCHWEIZER RAINER J./VALLENDER KLAUS A. (Hrsg.), Die schweizerische Bundesverfassung [The Swiss Constitution], Zurich / St. Gallen 2014.

Botschaft des Bundesrates über eine neue Bundesverfassung vom 20. November 1996 [Dispatch regarding a new Federal Constitution] 1996 BBI 1997 I 1, p. 127.

154 EHRENZELLER (fn. 152), Rn. 11.

¹⁵⁵ BELSER (fn. 151), Rn. 7; MADER LUZIUS, Die Umwelt in neuer Verfassung? Anmerkungen zu umweltschutzrelevanten Bestimmungen der neuen Bundesverfassung [The environment in a new condition? Remarks concerning new environmental protection provisions of the new Federal Constitution], URP 2000 105, p. 108.

¹⁵⁶ EHRENZELLER (fn. 152), Rn. 20.

¹⁵⁷ EHRENZELLER (fn. 152), Rn. 14.

¹⁵⁸ EHRENZELLER (fn. 152), Rn. 11.

MORELL RETO/VALLENDER KLAUS A., Art. 74 Const. N 29 and 31 (with reference to case law and further literature), in: EHRENZELLER BERNHARD/SCHINDLER BENJAMIN/SCHWEIZER RAINER J./VALLENDER KLAUS A. (Hrsg.), Die schweizerische Bundesverfassung [The Swiss Federal Constitution], Zurich, St. Gallen 2014.

based decision.¹⁶⁰ Furthermore, the principle of sustainability is explicitly a "trendsetting value-based decision" for agricultural policy according to Art. 104 para. 1 Const.¹⁶¹

- The discussion on the justiciability of the sustainability principle is not to be unrolled here in its entire spectrum. ¹⁶² Instead, the point is made that the Federal Supreme Court considering interests with regard to groundwater protection that had already been weighed by law and ordinance (again) explicitly referred to Art. 2 para. 2 and Art. 73 Const.: The planned gravel mining would irrevocably destroy the natural ground water reservoir "and make its use for drinking purposes impossible for future generations as well" (translated from German Original). ¹⁶³
- Climate protection undoubtedly presents one of the biggest challenges with regard to ensuring sustainable development. Thus, various authors see an important contribution to realising intergenerational justice and sustainable development by addressing anthropogenic global warming.¹⁶⁴

When using the resource soil¹⁶⁵ we would reach *physical and visible boundaries* before a collapse can occur. In contrast, excessive GHG emissions *do not have any visible spatial obstacles* that could influence our actions directly. However, the consequences of the excessive concentration of GHGs are quite visible, *and will become even more* evident in the future. These climate-specific peculiarities are inasmuch even more serious, as the findings of the IPCC state that delays in reducing greenhouse gas emissions make the task of keeping global warming under control (para. 4.2.3) substantially more difficult (para. 51). If the normal climate system becomes unbalanced due to policy failures, the principle of Art. 73 Const., according to which "a

¹⁶¹ See Vallender Klaus A., Art. 73 Const. N 54 ff., in: Ehrenzeller Bernhard/Schindler Benjamin/Schweizer Rainer J./Vallender Klaus A. (Hrsg.), Die schweizerische Bundesverfassung [The Swiss Federal Constitution], Zurich, St. Gallen 2014.

¹⁶⁵ See in particular Mahaim (fn. 162).

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¹⁶⁰ GRIFFEL (fn. 69), N 18 and 32.

¹⁶² See Griffel (fn. 69), N 18 and 32, as well as in more detail Morell/Vallender (fn. 159), Art. 74 N 33 ff, and Raphaël Mahaim, Le principe de durabilité et l'aménagement du territoire – Le mitage du territoire à l'épreuve du droit: utilisation mesurée du sol, urbanisation et dimensionnement des zones à bâtir [The sustainability principle and land use planning – urban sprawl and the law: moderate use of land and dimensioning of building zones], Genève, Zurich, Bâle 2014, p. 91 ff.

¹⁶³ URP 2016 342 (Neckertal SG), E. 7; in the same sense URP 2004 299 (Köniz BE), E. 3.2. ¹⁶⁴ Vgl. Flueckiger Alexandre, Droits de l'homme et environnement [Human rights and environment], in: Hertig Randall Maya/Hottelier Michel, Introduction aux droits de l'homme [Introduction to humgan rights]. Genève, 2014, S. 606–620, S. 617; Mahaim Raphaël (fn. 162), p. 74; Vallender Klaus A., Art. 73 N 57 f., in: Ehrenzeller Bernhard/Schindler Benjamin/Schweizer Rainer J./Vallender Klaus A. (Hrsg.), Die schweizerische Bundesverfassung [The Swiss Federal Constitution], Zurich, St. Gallen 2014.

balanced and sustainable relationship between nature and its capacity to renew itself and the demands placed on it by the population" is to be pursued (translation from German original), would be clearly violated.

5.3 Breach of the precautionary principle (Art. 74 para. 2 Const.)

- The precautionary principle is a fundamental principle of environmental 116. law. 166 It must always be considered when it comes to protecting people 167 in their environment. 168 The precautionary principle involves "prevention" (requiring scientific evidence of harmfulness of a behavior, a substance or a situation) as well as "precaution" (requiring no such evidence, though sufficient probability). 169 According to the Federal Supreme Court, the precautionary principle is "based on the idea to avoid unmanageable risks; it creates a safety margin, which takes into account uncertainty about long-term effects of environmental pollution" (translation from German, emphasis added). ¹⁷⁰ A key function of the precautionary principle is thus that of a decision-making rule in the event of uncertainty. The precautionary principle is designed to prevent that lack of scientific certainty is used as an excuse for state inaction. 171 It is an expression of the "fundamental strategy of dealing with the risk and the uncertainty by legislation" (translated from German). 172 To bring about legal consequences, the harmfulness or dangerousness of a particular behaviour or situation need not be proved with scientific accuracy. 173
- In the field of environmental protection, the precautionary principle is anchored in Art. 74 para. 2 sentence 1 in conjunction with Art. 74 para. 1

 Const. on the constitutional level, based on which the Confederation shall ensure that effects on the population and its natural environment that are harmful or a nuisance are avoided. The Federal Supreme Court concludes

¹⁶⁶ GRIFFEL (fn. 69), N 18 and 32.

¹⁶⁷ GRIFFEL (fn. 69), N 24, 25 and 42.

¹⁶⁸ Marti Ursula, Das Vorsorgeprinzip im Umweltrecht [The precautionary principle in environmental law], Genève 2011, p. 149.

GRIFFEL ALAIN/RAUSCH HERIBERT, Kommentar zum Umweltschutzgesetz, Ergänzungsband zur 2. Auflage [Commentary on the Environmental Protection Act, supplementary volume to the 2^{nd} edition], 2011, Art. 1 N 15.

¹⁷⁰ BGE 126 II 399 E. 4b (mutatis mutandis), Dotzigen (= URP 2000 602 ff.); BGE 124 II 219 E. 8a, Biel (= URP 1998 215 ff.); BGE 117 Ib 28 E. 6a, Samnaun (= URP 1991 127 ff.); Federal Supreme Court judgment 1A.62/1997 and 1P.150/1997 from 24 Oct 1997 E. 2a, Dürnten (= 781 1998 437 ff.)

⁽⁼ ZBI 1998 437 ff.). ¹⁷¹ BGE 132 II 305 p. 320.

¹⁷² GRIFFEL/RAUSCH (fn.169), N 19.

¹⁷³ GRIFFEL/RAUSCH (fn.169), N 19.

¹⁷⁴ See also Griffel (fn. 69), N 33.

from the ecological dimension of the principle of sustainable development that the precautionary principle must be given a high priority.¹⁷⁵ The principle has also prevailed in other areas, such as the health sector.¹⁷⁶ The potential expansion to related areas issues, such as human and animal health or food safety¹⁷⁷, make GRIFFEL and RAUSCH conclude that the precautionary principle is developing "gradually from a specific environmental law principle to a general principle of administrative law" (translated from German).¹⁷⁸

- 118. Based on the precautionary principle, the Confederation must, for reasons of precaution, ensure that the harmful consequences of global warming for the population as a result of excessive GHG emissions can be avoided.
- 119. The precautionary principle does not mean, however, that all conceivable risks need to be avoided. Considering the proportionality principle, a reasonable balance must be struck between the funds used on the one hand and the avoided risk on the other hand (Art. 5 para. 2 Const.). ¹⁷⁹ In a decision relating to the Mühleberg Nuclear Power Plant ¹⁸⁰, the following gradations were developed by the Federal Supreme Court:
 - 1. Effects or risks that are absolutely inadmissible and cannot be authorized (e.g. cross-border emissions).
 - 2. Effects and risks, which need to be limited by taking measures to reduce risks or effects, if they are compatible with the operation of the plant in all its aspects (technical, operational, economical).
 - 3. Risks that need *to be accepted*, in particular when measures that can limit dangers effectively, should they materialise some day, are still possible at a later time; a zero-risk is not demanded.
- 120. At the present time, climate is recognised to be one of the most researched and documented environmental issues; with regard to global warming, there is hardly any room for asserting insufficient scientific certainty. Human influence on the climate system is clear. 182

¹⁷⁵ BGE 132 II 305 E. 4.3.

¹⁷⁶ Marti (fn. 168), p. 149.

¹⁷⁷ Also implied in BGE 132 II 305 E. 4.3.

¹⁷⁸ GRIFFEL/RAUSCH (fn. 169), N 7.

¹⁷⁹ BGE 131 II 431 E. 4.1 (= URP 2005 330 ff.).

¹⁸⁰ BGE 139 II 185 E. 11.3.

¹⁸¹ HEYVAERT VEERLE, Governing Climate Change: Towards a New Paradigm for Risk Regulation, The Modern Law Review 2011 817, p. 833.

¹⁸² IPCC (fn. 11), p. 2.

It is "more likely than not" that without additional measures, global warming will exceed 4°C by the end of the 21st century; there is a high probability that such warming would have widespread and irreversible consequences. The precautionary principle articulated in Art. 3 para. 3 UNFCCC did not need to be repeated by the Parties to the Paris Agreement since "climate change is no longer a matter of precaution but one of prevention – preventing an acknowledged risk". Thus, proportionate legislative measures to protect the climate 185 and the obligation of preventive action can be justified with ample support. 186

- If the gradation applied by the Federal Supreme Court in the case of the Mühleberg Nuclear Power Plant is translated to the climate sector, the following gradation results:
 - 1. In any event, risks are to be considered "absolutely inadmissible" if they do not comply with the global "well below 2°C" target. First, the precautionary principle requires at least serious pursuit of the global 2-degree target that is based on extensive scientific knowledge, internationally recognised for a long time. Second, based on new scientific findings, this target recently changed to a "well below 2°C" target, and therefore, became more ambitious (para. 4.2.1). In the context of precautionary measures, the latter must be specifically taken into account.

Furthermore, the fact has to be considered that the domestic emission reductions calculated by IPCC to achieve the goals only represent probabilities of over 66%. Can the Confederation run such risks for the general population? Already the probability of over 66% to achieve the 2°C target (and not the "well below 2°C" target) requires domestic GHG emissions to fall to *at least* 25% (to 40%) below 1990 levels by 2020.¹⁸⁷ Through 2030, a domestic emission reduction of 50% below 1990 levels is necessary (see s. 4.2.2.2 above); without a doubt there is a gap between the 30% domestic target of the Respondents and what needs to be done to achieve the 2°C target as well as the "well below 2°C" target (ss. 4.2.2.2 and 4.2.3). Considering that the given reductions paths lead to achieving the targets *only with a probability of over 66%*,

¹⁸³ IPCC (fn. 11), p. 18 f.

VIÑUALES JORGE E., The Paris Climate Agreement: An Initial Examination (Part I of III) February 2016.

¹⁸⁵ Вäнк (fn. 113), р. 172.

¹⁸⁶ See Marti (fn. 168), p. 35.

¹⁸⁷ Gupta et al. (fn. 25), p. 776 box 13.7.

these must be viewed as *the absolute minimum* and a shortfall of these reduction paths as an "absolutely unacceptable" risk. Nobody would board a plane that only has a 66% probability of arriving at its final destination.

Taking into account the precautionary principle, the purely hypothetical possibility of somehow achieving the reduction target through a less ambitious reduction path, particularly by means of sudden reductions and CDR, cannot justify the selection of another reduction path or the delay of domestic emission reductions, because such an approach would be associated with a clearly higher and unjustifiable risk of failure to meet the targets (see. para.

4.2.2.2 and 4.2.3). See also Art. 3 para. 3 UNFCCC:

- (...) **lack of full scientific certainty** (here: concerning the question whether a national reduction of 25% to 40% through bis 2020 and of 50% through 2030 is necessary to reach the target) should **not be used** as a **reason for postponing such measures**.
- 2. The risks of climate change, which will continue to exist even if the "well below 2°C" target is seriously pursued (whereas doubt exists that with a probability of achievement of just over 66%, it is already possible to talk about serious pursuit), must be limited though a precautionary approach as long as such measures are proportionate.¹⁸⁸
- 3. If these risks cannot be limited by proportionate means, they must be taken into account. The risks must be dealt with through means of adaptation to the climate change. Adaptation must take place simultaneously with mitigation of climate change through GHG emission reductions.
- If one understands the precautionary principle as a decision-making rule for law-making authorities, ¹⁸⁹ and in cases of reliable scientific knowledge as here at the same time as an obligation to take preventive action ¹⁹⁰, the Respondents 1 (Art. 181 Const.), 2 (Art. 1 para. 2 and 3 OrgO-DETEC) and 3 (Art. 12 para. 2 OrgO-DETEC) would have had to propose to parliament in Art. 3 para. 1 CO₂ Act a reduction target of at least 25% to 40% below 1990 levels by 2020, and parliament would have had to decide accordingly.

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¹⁸⁸ See also BGE 131 II 431 E. 4.1 (= URP 2005 330 ff.). In the context of climate change not only construction-specific measures have to be taken. Therefore measures are to be tested under the (general) principle of proportionality rather than asking whether further measures are "economically acceptable" pursuant to Art. 11 para. 2 EPA.

¹⁸⁹ GRIFFEL (fn. 69), Art. 74 N 32.

¹⁹⁰ See Marti (fn. 168), p. 35.

Also, the Respondents would have had to plan a domestic target of 50% for 2030 in the preliminary legislative procedure to be discussed in the consultation process.

123. Conclusion: The current legislation and the current actions of the Respondents in terms of 2030 are unconstitutional because they do not comply with the precautionary principle pursuant to Art 74 Const.¹⁹¹

5.4 Violation of the Applicant's right to life (Art. 10 para. 1 Const.)

5.4.1 State obligation to protect

5.4.1.1 Obligation to protect in case of imminent threats to life

The right to life protects the state of being alive. ¹⁹² In addition to the deprivation of life, threats to life can also be an impairment of the right. ¹⁹³ Accordingly, the right to life also includes the entitlement to benefits, for example, in situations in which life is not threatened because of acute distress, but in a longer term by disease. ¹⁹⁴ In particular, the right to life comprises Switzerland's obligation to protect, including cases where life is threatened by natural disasters or third countries (e.g. Non-Refoulement). ¹⁹⁵ Today, adequate environmental legislation is part of the indispensable measures that must be taken by the state to protect the life of its citizens. ¹⁹⁶

The obligation to protect applies either in situations of concrete impairment of fundamental rights (i.e. at least risk to life) or if such impairment might occur with a certain probability.¹⁹⁷

With climate change, there are many threats to life: due to natural disasters such as heatwaves¹⁹⁸, floods¹⁹⁹, landslides, melting permafrost and associ-

¹⁹² TSCHENTSCHER AXEL, Art. 10 Const. N 9, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

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¹⁹¹ See Marti (fn. 168), p. 162.

¹⁹³ TSCHENTSCHER (fn. 192), Art. 10 N 10; SCHEFER MARKUS, Beeinträchtigung von Grundrechten [Impairment of fundamental rights], in: MERTEN DETLEF/PAPIER HANS-JÜRGEN (Hrsg.), Handbuch der Grundrechte in Deutschland und Europa, Bd. VII-2 [Handbook of fundamental rights in Germany and Europe, Vol. VII-2], Heidelberg 2007, p. 159

¹⁹⁴ TSCHENTSCHER (fn. 192), Art. 10 N 17.

¹⁹⁵ TSCHENTSCHER (fn. 192), Art. 10 N 18.

¹⁹⁶ MÜLLER JÖRG PAUL/SCHEFER MARKUS, Grundrechte in der Schweiz, Im Rahmen der Bundesverfassung, der EMRK und UNO-Pakte [Fundamental rights in Switzerland, under the Federal Constitution, ECHR and UN Convenants], 2008, Art. 10 para. 1 N 54.

WALDMANN BERNHARD, Art. 35 Const. N 43, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

ated rock slides and debris flows²⁰⁰, pollution of water, soil and air quality²⁰¹ and the spread of pests, diseases,²⁰² etc. Such threats have already been seen in the past, especially in the wake of heatwaves (see also s. 4.4.2.1). For example, the hot summer of 2003 led to almost 1,000 additional deaths in Switzerland;²⁰³ in Europe around 70,000 more people died in the summer of 2003 than usually do in the same period;²⁰⁴ also in the hot summer of 2015, at least 267 heat-related excess deaths were recorded in July in Switzerland.²⁰⁵

Global warming causes more than half of the hot days.²⁰⁶ The probability that a *specific* heatwave period can be attributed to global warming is over 75%.²⁰⁷

According to the IPCC, it is "likely" (i.e. 66% – 100% probability) that these deaths during heatwaves are due to anthropogenic global warming:

The 2003 heat wave was one such record event; therefore, the **probability that a particular heat wave can be attributed to climate change is 75% or more**, and on this basis it is **likely the excess mortality attributed to the heat wave** (about 15,000 deaths in France alone [...]) **was caused by anthropogenic climate change.**²⁰⁸ (Emphasis added)

¹⁹⁸ FOPH and FOEN (fn. 117), p. 1; FISCHER ERICH, Hitzetage zu mehr als der Hälfte wegen des Klimawandels [More than half of the hot days due to climate change], 2015, www.ethz.ch/de/news-und-veranstaltungen/eth-news/news/2015/04/hitzetage-zu-mehr-als-der-haelfte-wegen-des-klimawandels.html.

¹⁹⁹ FOEN (fn. 129).

²⁰⁰ FOEN, Naturgefahren und Klimawandel [Natural hazards and climate change], 2016. (remark regarding the English version: URL has changed, now available at https://www.bafu.admin.ch/bafu/de/home/themen/naturgefahren/fachinformationen/gefahrenprozesse/naturgefahren-und-klimawandel.html).

²⁰¹ FOEN (fn. 129).

²⁰² FOEN (fn. 129).

²⁰³ FOPH AND FOEN (fn. 117), p. 1.

 $^{^{204}}$ Spiegel online, Statistik-Studie: Hitze-Sommer 2003 hat 70.000 Europäer getötet [Statistics Study: Hot summer of 2003 killed 70,000 Europeans],

www.spiegel.de/wissenschaft/mensch/statistik-studie-hitze-sommer-2003-hat-70-000-europaeer-getoetet-a-473614.html.

²⁰⁵ MÜNZEL THOMAS, Allein im Juli gab es in der Schweiz rund 300 Hitzetote [In July alone, there were about 300 heat-related deaths in Switzerland], Der Landbote, 12 August 2015; see also Federal Statistical Office FSO, Mehr Todesfälle bei den älteren Menschen wegen Grippewelle und Hitzesommer [More deaths among older persons because of flu season and hot summer] 25 February 2016.

summer] 25 February 2016.

²⁰⁶ FISCHER ERICH, Hitzetage zu mehr als der Hälfte wegen des Klimawandels [More than half of the hot days due to climate change], 2015, www.ethz.ch/de/news-und-veranstaltungen/ethnews/news/2015/04/hitzetage-zu-mehr-als-der-haelfte-wegen-des-klimawandels.html.

²⁰⁷ FISCHER ERICH/KNUTTI RETO, Anthropogenic contribution to global occurrence of heavy-precipitation and high-temperature extremes, Nature Climate Change, 27 April 2015, p. 1, 3 and 5.

²⁰⁸ SMITH ET AL. (fn. 118), p. 720.

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The relationship between increased mortality and climate-related hot days was confirmed again in a recently published study²⁰⁹ and can also be seen in the following graph:

London (1993-2003) 0.6 2003 0.5 1993-2002 0.4 Heat related mortality (deaths/100,000) 0.3 0.2 0.1 0.0 Paris (1993-2003) 2003 1993-2002 3 2 1

Distribution of heat-related deaths in London and Paris

Source: MITCHELL/HEAVISIDE/VARDOULAKIS/HUNTINGFORD/MASATO/GUILLOD/FRUMHOFF/BOWERY/ WAL-LOM/ALLEN 2016 (fn. 209), figure 4.

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5.4.1.2 Obligation to protect Applicants as members of the «most vulnerable group»

127. The fact that the risk of climate change-induced increased mortality greatly affects the Applicants has been described in detail in Section 4.4 above. Global warming thus creates a new vulnerable population group ("most vulnerable group") of older women. In such a case, the state is subject to a special obligation to protect. Because specifically in this population group, the probability of a threat to life increases with the increase in number of hot days resulting from global warming. This results in the state's obligation

 209 MITCHELL DANIEL/HEAVISIDE CLARE/VARDOULAKIS SOTIRIS/HUNTINGFORD CHRIS/MASATO GIACO-MO/GUILLOD BENOIT P/FRUMHOFF PETER/BOWERY ANDY/WALLOM DAVID/ALLEN MYLES, Attributing human mortality during extreme heat waves to anthropogenic climate change, Environmental Research Letters 2016.

to protect, in particular to protect the elderly, over 75-year-old women from the life-threatening consequences of further climate warming.

- In the decision regarding accident prevention at the nuclear power plant Mühleberg, the Federal Supreme Court considered the "low probability of occurrence of damage" as sufficient to give rise to the legislator's obligation to protect residents of nuclear power plants, given the severity and the extent of possible impairments of fundamental rights through the peaceful use of nuclear energy. This must apply a fortiori in the present case because climate change has undisputedly already begun and the relation between premature deaths in particular in the new most vulnerable population group and global warming is "likely" (i.e. 66% -100% probability) (para. 126).
- In addition to this qualitative element, a quantitative aspect is also relevant: The larger the group of people negatively affected is, the more effective it is to protect through fundamental rights.²¹¹ The fact that besides the Applicants, the general population would also benefit if the Confederation assumed its obligation to protect (as it is the case with regard to measures in favour of residents of nuclear power plants) does not alter the obligation in any way.
- 130. This "most vulnerable group" of older women, to whom the Applicants belong, is with certainty and most severely affected by global warming. The fact that the State has protective duties with regard to the environmental disaster "global warming" and its consequences should be undisputed.

It would be incomprehensible if the state did not have any protection duties specifically for this (existential) environmental area of climate protection. Climate change is probably one of the most extensively researched environmental phenomena despite or because of its diffusivity and complexity. Should the climate sector be an area in which state protection duties apply, like everywhere else, then this applies at the least for older women and thus for the Applicants as members of this particularly vulnerable group. In addition, the Applicants 2–4 are negatively affected in their health specifically insofar as they must effectively endure heat related afflictions or afflictions that worsen during periods of heat (see above paras. 18 and 101).

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²¹⁰ BGE 140 II 315 E. 4.8.

²¹¹ Schefer Markus, Die Beeinträchtigung von Grundrechten, Zur Dogmatik von Art. 36 BV [The impairment of fundamental rights, regarding dogmatism of Art. 36 Const.], 2006, p. 50.

5.4.1.3 Creation of legal bases and adoption of other necessary measures, margin of appreciation

Overall, the state has to take the necessary legal and factual measures to 131. protect the fundamental rights and put in place an appropriate administrative and financial framework.²¹² This applies particularly in the case of qualified "objects of protection" such as the right to life.213

With regard to determining the climate target the Confederation has to ensure, in terms of its constitutional obligation to protect, that at least the "well below 2°C" target (and thus also the 2°C target) must be met. As shown in Section 4.2, in this respect, it must be ensured that for the period through 2020, a reduction of GHG emissions by 25% below 1990 levels is the minimum target, and that all the necessary measures are effectively implemented to reach this goal. For the period through 2030, a reduction in domestic GHG emissions by 50% below 1990 levels is required. This is in accordance with the sustainability and precautionary principles or with using the precautionary principle as a starting point.

- These minimum goals can, could and still may not be subject to political 132. negotiation. They are non-negotiable, and there is no discretionary power here. The obligation of the state to protect most vulnerable groups of the population against the threats to life by natural disasters cannot go less far than its duty to apply the precautionary principle, according to which the state has to protect "the people" (i.e. every person) preventively in their natural environment.
- 133. Considering the scope of the obligation to protect, Art. 5 para. 4 Const is significant regarding compliance with international law, but particularly significant is the fact that the European Court for Human Rights (ECtHR) regularly considers international environmental standards²¹⁴ and principles²¹⁵ (such as the "no-harm-rule"²¹⁶), the precautionary principle²¹⁷ as well as the UN reports²¹⁸ etc. when determining the obligation to protect. In the pre-

²¹² WALDMANN (fn. 197), Art. 35 N 49.

²¹³ See Waldmann (fn. 197), Art. 35 N 49.

²¹⁴ Borysiewicz v. Poland, Application no. 71146/01, para. 53 "[T]he Court notes that the applicant has not submitted (...) noise tests which would have allowed the noise levels in her house to be ascertained, and for it to be determined whether they exceeded the norms set either by domestic law or by applicable international environmental standards (...)".

²¹⁵ Salas Alfonso de, Manual on human rights and the environment, Strasbourg, France 2012, p. 31. ²¹⁶ SALAS (fn. 215), p. 149.

Tătar v. Romania, Application no. 67021/01, para. 120.

²¹⁸ *Tătar v. Romania*, Application no. 67021/01, para. 95.

sent case, the scope of the obligation to protect according to national law or the European Court for Human Rights cannot be understood separately from the new internationally agreed²¹⁹ "well below 2°C" target that is based on recent scientific evidence. Even less can it be viewed separately from the long-established 2°C target.

5.4.2 No grounds of justification

5.4.2.1 Additional proportionate measures are possible

- 134. The Confederation and in particular the Respondents 1-3 cannot justify the reduction objectives that do not correspond with either the "well below 2°C" target nor the 2°C target by stating that no suitable measures were available for the protection of the affected population.²²⁰ The Respondents themselves outlined, in the dispatch to parliament in 2009, how Switzerland could achieve a 30% target (though, in the end, they did not recommend to parliament to proceed in such a way). At the time they were of the opinion that new measures were not even needed (not even a CO₂ levy on motor fuels) and a mere increase in the effectiveness of existing measures would be sufficient 221
- In addition, there are numerous measures to reduce GHG emissions that 135. could be designed to fulfil the principle of proportionality which have not yet been implemented, such as additional measures in the building sector (ban of oil and gas heatings, CO₂ thresholds for buildings), a tightening of the targets for the CO₂ emissions from passenger cars, the introduction of a CO₂ levy on motor fuels and on meat products²²², the promotion of electric mobility and the hitherto neglected inclusion of the agricultural sector in the package of climate measures. This applies for 2020 as well as for the GHG reduction period until 2030.
- 136. The consultation draft for a new CO₂ Act dealing with the period after 2020 published at the end of August 2016 does not give any hope for an increase in the efforts to reduce GHG emissions, with the exception of a substitute performance provision applicable if the cantons fail to reach certain emission reduction targets. Respondent 2 refers expressly to the fact that the domestic emission reduction target will in large parts be reached by the ref-

 $^{^{219}}$ The Paris Agreement entered into force on 4 November 2016. 220 Waldmann (fn. 197), Art. 35 N 42 with further references.

²²¹ BBI 2009 7433, 7480.

²²² BÄHR (fn. 113).

erence development alone, with the existing (insufficient!) measures being merely continued and without any further efforts.²²³ This is despite the fact that, from an economic perspective, further efforts would readily be feasible (up to 3% are readily manageable, see s. 4.2.3 above).

5.4.2.2 No conflicting public interest or interest of the national economy

- There is no public interest conflicting with assuming the state's obligation to 137. protect towards the Applicants. Rather, their interests run in parallel because the life-threatening effects of climate change could impact everyone. Due to the statistical life expectancy, almost everyone will belong to the group of elderly people highly affected by the consequences of global warming at some time. Thus, there is not only a need to protect the currently affected elderly, but also a general public interest in complying with at least the 2°C target.
- The balancing of interests with economic interests cannot either justify the 138. low Swiss emission reduction targets. The interests of compliance with the climate targets, and thus of preventing climatic disasters, carry greater weight also from an economic perspective. The details:
 - Firstly, according to a new study, social welfare decreases by USD 220 with each additional tonne of CO₂ emitted.²²⁴ Nicholas Stern estimated 2006 in his famous study The Stern Review the annual costs of climate change to be 5% – 20% of global gross domestic product. ²²⁵ In 2015, he noted that the climate change-related costs are even substantially higher than assumed in 2006.²²⁶

A breach of the obligation to protect towards particularly vulnerable population groups cannot be justified either by giving, without more ado, greater weight to possible short-term cost savings than to longerterm costs for the economy. However, this is exactly what Respondent 1 as well as Respondents 2 and 3 (who have de facto created the law)

p. 28.

224 Moore Frances C./DIAZ DELAVANE B., Temperature impacts on economic growth warrant

Climate Change 2015 127. p. 128. stringent mitigation policy, Nature Climate Change 2015 127, p. 128.

²²⁵ STERN NICHOLAS H., The Economics of Climate Change, Cambridge, UK, New York 2007,

p. vi. $^{\rm 226}$ Stern Nicholas H., Why are we waiting? The logic, urgency, and promise of tackling climate change, Cambridge, Massachusetts 2015.

²²³ DETEC, Klimapolitik der Schweiz, Erläuternder Bericht zur Vernehmlassungsvorlage [Climate policy of Switzerland: Explanatory Report on the consultation draft], 31 August 2016,

- proposed with their recommendation of the 20% reduction target, referring solely to the EU as the main trade partner of Switzerland. 227
- Secondly, a recent analysis shows that Switzerland can drastically reduce its CO₂ emission without imposing any burden on the economy at all.²²⁸ This was already known at the time of drafting Art. 3 para. 1 of the CO₂ Act. Despite this fact it was still assumed with reference to the EU that further efforts to achieve emission reductions could not be expected of the economy.²²⁹ Also, the Subsidiary Body for Scientific and Technological Advice of the UNFCCC came to the conclusion that the mitigation costs for pursuing a below 2°C target "are manageable". 230

5.4.2.3 Inaction of other states is no justification

- 1.39. Furthermore, the weak Swiss emissions target cannot be justified by arguing that other states, parties or partners (for example the EU) are doing too little as well (or more than necessary). However, this is exactly how Respondent 1, supported by Respondents 2 and 3, argued, declaring "to be ready" to increase the reduction target to 30% only if other countries would commit to more ambitious reduction targets as well.²³¹
- For the state obligation to protect, it is not relevant whether climate 140. change-induced dangers as well as climate change itself are caused by Switzerland alone or (also) by third countries (para. 124). As with the principle of non-refoulement (keyword "diplomatic assurances"232), Switzerland is free to internationally seek assurances about emission reductions from third countries that correspond with its obligation to protect the affected population. Indeed, Switzerland is doing this within the UNFCCC. However, the efforts made for the period through 2020 are not sufficient, because neither Switzerland nor other countries are reducing their emissions ade-

²²⁸ THALMANN PHILIPPE/MÜHLBERGER DE PREUX CORNÉLIA, Tief greifende Dekarbonisierung: Der Weg in eine kohlenstoffarme Ära [Profound decarbonisation: The way to a low-carbon era], Umwelt (Journal of FOEN) 2016 42, p. 43.

²²⁷ BBI 2009 7433, 7480.

²²⁹ AB 2010 N 607, AB 2011 S 119. In the debate, expert reports such as from McKinsey, "that consider a domestic reduction of 25 percent as necessary and economically reasonable" (translated from German) were explicitly mentioned. This opinion was was shared by the socalled Energy Trialogue Switzerland with the leading businesses (statement Martin Bäumle,

speaking for the committee responsible, AB 2010 N 601). ²³⁰ Subsidiary Body for Scientific and Technological Advice, forty-second session, Bonn 1-11 June 2015, Report on the structured expert dialogue on the 2013-2015 review, FCCC/SB/2015/INF.1, Message 6.

BBI 2009 7433, 7480.

²³² ACHERMANN ALBERTO, Art. 25 BV N 31, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

- quately to meet the 2°C target not to speak of the "well below 2°C" target. At the next Conference of the Parties to the UNFCCC, there will thus be talk about increasing the ambitions through 2020.
- Other states are also (depending on national legislation) subject to the obligation to protect most affected people. However, the fact that other states might also violate their obligation to protect cannot deprive the Applicants of their rights or lead to a denial of justice. When analysing the situation in Switzerland, one may rather come up with the hypothesis that *all other* states are reducing their greenhouse gas emissions in line with the (well below) 2°C target. Seen from that perspective, Switzerland's excessive emissions and the causal omissions of the Respondents would alone be decisive with regard to the global failure to achieve this target, with the aforementioned consequences for the Applicants.

5.4.2.4 The "small state" argument is no justification

- The fact that Switzerland is a comparatively small country does not carry much weight either, because the reduction levels calculated by IPCC to achieve the goals can only lead to compliance with the 2°C target if *all* concerned parties meet these. If all governments acted like that of Switzerland, the world would warm up by well over 2°C.²³³ At present, not only the current emission reductions, but also the pledges of the parties regarding the period after 2020 are apparently insufficient for compliance already with a 2°C target: The emission reductions offered in Paris at best lead to a devastating global warming of 2.7 degrees until 2100.²³⁴
- In addition, each tonne of CO_2 warms up the climate. All countries therefore have to take measures to reduce GHG emissions to the greatest possible extent. A state cannot discard the obligation to take precautionary measures with the argument of "minor contribution".²³⁵

²³⁴ CLIMATE ACTION TRACKER, Climate pledges will bring 2.7°C of warming, potential for more action, http://climateactiontracker.org/news/253/Climate-pledges-will-bring-2.7C-of-warming-potential-for-more-action.html.

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²³³ CLIMATE ACTION TRACKER, Switzerland, Assessment, http://climateactiontracker.org/countries/switzerland.

²³⁵ Urgenda Foundation v. The State of the Netherlands (fn. 146), para. 4.79: "(...) more reduction measures have to be taken on an international level. It compels all countries, including the Netherlands, to implement the reduction measures to the fullest extent as possible. The fact that the amount of the Dutch emissions is small compared to other countries does not affect the obligation to take precautionary measures in view of the State's obligation to exercise care. After all, it has been established that any anthropogenic greenhouse gas emission, no matter how minor, contributes to an increase of

It is also important to mention that the per capita emissions in Switzerland is at the same or slightly higher more than neighbouring countries if one also considers grey emissions.²³⁶

5.4.3 Conclusion

145. The reduction target enshrined in art. 3 para. 1 CO₂ Act does not meet the 2°C target. Thus, it is inconsistent with fundamental rights and therefore unconstitutional. The current actions of the Respondents are also unconstitutional, since they are not directed at the 2°C target or the "well below 2° C" target. Political leeway exists only insofar as the Confederation can determine the individual measures with which it wants to fulfil its duty to protect, provided that these are effective and appropriate to achieve an emission reduction target compliant with the Constitution. Therefore, the domestic reduction target for 2020 of at least 25% (to 40%) and for 2030 of at least 50% is not politically negotiable. The Confederation and therefore the Respondents 1-3 are in violation of their obligation to protect the concerned population with the current as well as with the proposed inadequate reduction targets. Also, the failure to adopt all necessary measures to reach an adequate goal is still on-going. Importantly: Political obstacles neither make climate measures unproportional nor do they justify violating of the state's obligation to protect through weak reduction goals.

5.5 Violation of the Applicants' right to life (Art. 2 ECHR)

5.5.1 State obligation to protect

5.5.1.1 Generally

According the case law of the ECtHR, the right to life (Art. 2 ECHR) obliges the Parties to *contribute positively* to the protection of life²³⁷, if necessary

CO2 levels in the atmosphere and therefore to hazardous climate change" (emphasis added).

²³⁶ FOEN, Kernindikator Treibhausgas-Emissionen [Core indicator CO₂ emissions per capita],15 April 2016, (remark regarding the English version: URL has changed, information now available at FOEN Climate Change: Questions and answers: how much CO₂ does Switzerland cause? https://www.bafu.admin.ch/bafu/en/home/topics/climate/climate-change--questions-and-answers.html in English).

and-answers.html in English).

²³⁷ SALAS (fn. 215), p. 18; *L.C.B. v. the United Kingdom*, Application no. 23413/94, para. 36;
Paul and Audrey Edwards v. the United Kingdom, Application no. 46477/99, para. 54; Öneryildiz v. Turkey [GC], Application no. 48939/99, para. 71; Budayeva and Others v. Russia,
Application no. 15339/02, para. 128.

also through the imposition of obligations upon third parties.²³⁸ The following quote gets to the heart of the obligation to protect human rights of private persons vis-à-vis third parties:

States have to protect their people, while companies only have a moral responsibility to respect human rights. **The State's obligation** should result in a **regulatory framework** that **imposes legally binding duties upon companies** under domestic law (preventative), and **remedies must be available** in case of an interference (remedial).²³⁹

- The ECtHR justifies the positive obligation to protect with Art. 1 ECHR and the need of making guarantees of the Convention effectively enforceable. In such cases, it is important to determine the "juste équilibre" between private and public interests, whereby the state also has a certain margin of appreciation. 241
- The state must take all the proportionate measures to protect the lives of those within its jurisdiction.²⁴² In the context of the environment, this means that Art. 2 ECHR comes into play when certain activities are so harmful that they endanger a person's life.²⁴³ Art. 2 ECHR (and also Art. 10 Const.) do not require death to occur. ²⁴⁴ In the words of the ECHR:

The Court's task is, therefore, to determine whether, given the circumstances of the case, **the State did all that could have been required of it to prevent** the applicant's life from being **avoidably put at risk**.²⁴⁵ (Emphasis added)

5.5.1.2 Development of regulation

In order to abide by its obligation to protect, the state is obliged to *prevent* any threat to the right to life from environmental disasters. For this purpose, it must establish the necessary regulatory regime²⁴⁶ and administra-

²³⁸ Osman v. the United Kingdom, Application no. 23452/94; Salas (fn. 215), p. 18.
²³⁹ Verdonck Lieselot, It is time for the European Court to step into the business and human rights debate: A comment on Özel & Others v. Turkey, 7 Dezember 2015, https://strasbourgobservers.com/2015/12/07/it-is-time-for-the-european-court-to-step-into-the-business-and-human-rights-debate-a-comment-on-ozel-others-v-turkey/#more-3094.

²⁴⁰ PÉTERMANN NATHANAËL, Les obligations positives de l'Etat dans la jurisprudence de la Cour européenne des des de l'homme – Théorie générole, incidences législatives et mise en la courte de la courte de la cource d

européenne des droits de l'homme – Théorie générale, incidences législatives et mise en œuvre en droit suisse [The positive obligations of the state in the case-law of the European Court for Human Rights], Bern 2014, p. 48.

²⁴¹ See PÉTERMANN (fn. 240), p. 46 ff., and regarding the development of case law p. 43 ff.

²⁴² Salas (fn. 215), p. 18.

²⁴³ SALAS (fn. 215), p. 35.

²⁴⁴ Salas (fn. 215), p. 35.

²⁴⁵ L.C.B. v. the United Kingdom, Application no. 23413/94, para. 36.

Regarding regulatory inaction, see also Flueckiger (fn. 164), p 610; Pétermann (fn. 240), p. 117 ff.

tion.²⁴⁷ These must take into account the special circumstances of a particular situation and the level of risk.²⁴⁸

5.5.1.3 Scope of the obligation to protect

150. Besides the harmfulness of environmentally damaging activities, the scope of the obligation to protect also depends on the *foreseeability* of the risk to life.²⁴⁹ In *M. Özel and Others v. Turkey*, the ECtHR addressed foreseeability by looking at the classification of the region as zone for seismic activity:

In the present case it notes from the case file that the **national authorities** were perfectly well aware of the earthquake risk in the affected region. The **spatial planning documents** for the regions therefore included the relevant information and **the earthquake-hit area** had been classified as a "disaster zone".²⁵⁰

ly relies on international environmental rules²⁵¹ and principles²⁵² (such as the "no-harm-rule"²⁵³), the precautionary principle²⁵⁴ as well as UN reports²⁵⁵ etc. As an example, the following quote from *Borysiewicz v. Poland*²⁵⁶:

(T)he Court notes that the applicant has not submitted (...) noise tests which would have allowed the noise levels in her house to be ascertained, and for it to be determined whether they exceeded the norms set either by domestic law or by applicable international environmental standards, or exceeded the environmental hazards inherent in life in every modern town. (Emphasis added)

On certain occasions, the ECtHR has also expressed its view regarding the risk of a damage occurring. Sometimes, it has used the term "likely"²⁵⁷, however, without defining it further. In the case of Öneryıldız v. Turkey, it referred specifically to the Convention on the Protection of the Environment

²⁴⁷ Öneryildiz v. Turkey [GC], Application no. 48939/99, para. 89; Budayeva and Others v. Russia, Application no. 15339/02, para. 129.

²⁴⁸ Öneryildiz v. Turkey [GC], Application no. 48939/99, para. 90; Budayeva and Others v. Russia, Application no. 15339/02, paras. 129 and 132.

²⁴⁹ Öneryildiz v. Turkey [GC], Application no. 48939/99, para. 73; L.C.B. v. the United Kingdom, Application no. 23413/94, para. 37–41.

²⁵⁰ M. Özel and Others v. Turkey, Application no. 14350/05, para. 174.

²⁵¹ Borysiewicz v. Poland, Application no. 71146/01, para. 53.

²⁵² Salas (fn. 215), S. 31.

²⁵³ SALAS (fn. 215), S. 149.

²⁵⁴ *Tătar v. Romania*, Application no. 67021/01, para. 120.

²⁵⁵ *Tătar v. Romania*, Application no. 67021/01, para. 95.

²⁵⁶ Borysiewicz v. Poland, Application no. 71146/01, para. 53.

²⁵⁷ Öneryildiz v. Turkey [GC], Application no. 48939/99, para. 93; *Budayeva and Others v. Russia*, Application no. 15339/02, paras. 140, 147; L.C.B. v. the United Kingdom, Application no. 23413/94, para. 38.

through Criminal Law²⁵⁸, according to which States have to take such measures that are needed to qualify "acts involving the disposal, treatment, storage (...) of hazardous waste which causes or is likely to cause death or serious injury to any person ..." (emphasis added) as criminal offences. 259 In M. Özel and Others v. Turkey, the risk of occurrence of damage resulted solely from the classification of an earthquake zone. 260

5.5.2 Obligation to protect in the jurisprudence of the ECtHR²⁶¹

- Until now, the ECtHR has on various occasions assumed a general positive 153. obligation to protect in the context of dangerous activities, as in the case of radioactivity²⁶² or waste disposal facilities.²⁶³ The duty to protect was also at issue in cases regarding chemical factories with toxic emissions²⁶⁴ and regarding asbestos, where the ECtHR in Brincat and Others v. Malta found that the state violated its obligation to protect according to Art. 2 and 8 ECHR because the legislation of Malta violated the duties to protect that arise from the above-mentioned provisions.²⁶⁵
- Also with regard to inadequate prevention of environmental disasters, the 154. ECtHR has repeatedly found a violation of Art. 2 ECHR, so for example regarding the failure to adequately protect against mudslides²⁶⁶ and floods.²⁶⁷ Recently, the Court found also that a state has an obligation to protect against dangers to life associated with earthquakes. See the summary²⁶⁸ of the judgment M. Özel and Others v. Turkey²⁶⁹, compiled by ECtHR:

The instant case was noteworthy in that it represented the first occasion on which the Court found Article 2 to be applicable to the loss of life resulting from an earthquake. The Court accepted that the authorities have no control over the occurrence of earth-

²⁵⁸ ETS No. 172.

²⁵⁹ Öneryildiz v. Turkey [GC], Application no. 48939/99, para. 61.

²⁶⁰ M. Özel and Others v. Turkey, Application no. 14350/05, para. 174.

²⁶¹ See also the systematic review of PÉTERMANN (fn. 240), p 237 ff.

²⁶² L.C.B. v. the United Kingdom, Application no. 23413/94, para. 36.

²⁶³ Öneryildiz v. Turkey [GC], Application no. 48939/99, para. 71.

²⁶⁴ Guerra and Others v. Italy, Application no. 14967/89, paras. 60 and 62.

²⁶⁵ Brincat and Others v. Malta, Application no. 60908/11.

²⁶⁶ Budayeva and Others v. Russia, Application no. 15339/02.

²⁶⁷ Murillo Saldias and Others v. Spain, Application no. 76973/01.

²⁶⁸ ECHR, Overview of the courts case-law, 2015, S. 21, www.echr.coe.int/Documents/ Short_Survey_2015_ENG.pdf.

²⁶⁹ M. Özel and Others v. Turkey, Application no. 14350/05, para. 173: "The Court observes that earthquakes are events over which States have no control, the prevention of which can only involve adopting measures geared to reducing their effects in order to keep their catastrophic impact to a minimum. In that respect, therefore, the prevention obligation comes down to adopting measures to reinforce the State's capacity to deal with the unexpected and violent nature of such natural phenomena as earthquakes".

quakes. It observed, however, that where an area is prone to earthquakes Article 2 requires the authorities to adopt preventive measures so as to reduce the scale of the disaster created by an earthquake and to strengthen their capacity to deal with it. (Emphasis added)

As will be shown in detail below, this argumentation is transferable to the issue of global warming not been handled yet by ECtHR.

5.5.3 Application to climate change

- In contrast to the above cases concerning earthquakes (the existing of a "seismic risk zone" sufficed for justification of a duty of protection), nuclear power plants, flooding and mudslides (so-called *sudden* onset disasters), global warming and the associated substantial increase in heatwaves in Switzerland is not something that *may* or *probably will* happen someday. Rather, this is established based on extensive *scientific work that anthropogenic global warming* in the sense of "*slow onset disasters*" is not only likely but also already underway and thus a real threat.
- It is scientifically proven in a comparable extent to a designated earth-quake risk zone (see para. 150 above) and thus *predictable* what will happen if insufficient mitigation measures are taken to limit global warming as agreed by the international community to below a dangerous level (s. 4.2.1). That the excessive emission of GHG threatens the lives of the vulnerable population group of older women is clearly foreseeable and has also been anticipated by the Respondents 1–3 (para. 4.4). Metaphorically speaking, the earth is already shaking for the Applicants, and it is the state's duty to prevent a stronger earthquake with its destructive effects on their lives and health that would certainly occur if preventive measures were not taken.
- The harmfulness of the excessive emission of GHG in general and for the Applicants is immense (see ss. 4.2.1 and 4.4). Regarding the question whether GHG emissions are excessive, the ECtHR will refer to international law (para. 4.3.1) and the work of the IPCC (para. 4.2.2) as well as the precautionary principle (or the principle of prevention) (s. 5.3) and examine the Swiss climate target against this backdrop.
- The Swiss climate target contradicts Art. 2 ECHR as well as Art. 10 para. 1 Const. (see s. 5.4). Especially with a view of *M. Özel and Others v. Turkey*,

the extensive scientific work of IPCC should suffice for the ECtHR to justify a positive obligation to protect based on the assessed risk of occurrence of damage (para. 126 ff. and s. 4).

Margin of appreciation²⁷⁰ 5.5.4

In environmental matters, the states normally are given wide margin of 159. appreciation by the ECtHR due to their proximity.²⁷¹ However a state does not act within its margin of appreciation when its emission target does not meet the "well below 2°C" target that is based on extensive scientific work and internationally recognised. Because climate change is a global problem; the room for "proximity" that usually requires and justifies the margin of appreciation is therefore limited. Only the choice of more stringent emission targets and the choice of measures fall within a state's margin of appreciation, but no margin of appreciation is allowed when a state does not take all the steps required to achieve the "well below 2°C" target to protect life.

5.5.5 Conclusion

- The omissions of the Respondents 1–3 with regard to the 25% (to 40%) 160. respectively 50% domestic target necessary to avoid irreversible global warming are thus not only unlawful in the context of Art. 10 Const. but also violate Art. 2 ECHR.
- 161. It shall be noted at this point that in case of positive environmental obligations, it is the ECtHR's tendency to oblige a state as such and not a specific public authority.²⁷² The ECtHR makes no distinction as to whether breaches of the obligation to protect were committed by the executive or the legislature (parliament).

p. 139 ff. See also Flueckiger (fn. 164), p. 619. 271 SALAS (fn. 215), p. 31, points out that in the environment area, these are, due to their proximity, in a better position to assess the situation compared to the Court.

272 Braig Katharina, Umweltschutz durch die Europäische Menschenrechtskonvention [Envi-

ronmental protection by the European Convention on Human Rights], Basel 2013, p. 219.

²⁷⁰ See the thorough and differentiating deliberations in this regard in PÉTERMANN (fn. 240),

5.6 Violation of the right to respect for private and family life of the Applicants (Art. 8 ECHR)

5.6.1 State obligation to protect

5.6.1.1 In general

162. The Court derives a positive state obligation to protect also from the right to respect for private and family life (Art. 8 ECHR).²⁷³

Art. 8 para. 1 ECHR does not guarantee the right to a clean environment, but the obligation to protect includes environmental damage that adversely affects health, physical integrity or private and family life.²⁷⁴ Well being is also included here.²⁷⁵ Unlike with Art. 2 ECHR and Art. 10 Const., a danger to life is not a precondition.

- For the material scope of application of Art. 8 ECHR to be affected, the ECtHR requires that the private and family life be *directly and seriously* affected by the environment. However, a serious, *materialised threat* to life is not required.²⁷⁶ It is sufficient, for example, that a complainant is exposed to the stench and fumes of a hazardous waste management site for sulphides over several years, which periodically exceed the permitted legal thresholds. Damage is also considered when a factory releases toxic fumes and the quantity of pollutants measured is capable of harming health.²⁷⁷
- Furthermore, the harmful environmental impact must reach a certain "minimum threshold"; in this regard, all the relevant factors must be considered, such as intensity and duration of the exposure and its physical and mental consequences as well as the wider environmental context.²⁷⁸
- The ECtHR leaves the question, to what extent a "causal connection" must be proven between the activity and the harmful environmental impact, largely open.²⁷⁹ Thus, the ECtHR did not address the causal relation be-

²⁷³ López Ostra v. Spain, Application no. 16798/90.

²⁷⁴ EGMR, factsheet – Environment and the European Convention on Human Rights, June 2016, www.echr.coe.int/Documents/FS_Environment_ENG.pdf; *Fadeyeva v. Russia*, Application no. 55723/00, Paragraph 68; *Kyrtatos v. Greece*, Application no. 41666/98, Paragraph 52; *Dubetska and Others v. Ukraine*, Application no. 30499/03, Paragraph 105.

²⁷⁵ Keller Helen, Kommentar zum Umweltschutzgesetz [Commentary on the Environmental Protection Act], 2nd Edition 2004, Art. 1 N 134.

²⁷⁶ Keller Helen/Cirigliano Luca, Grundrechtliche Ansprüche an den Service Public: Am Beispiel der italienischen Abfallkrise [Basic legal requirements for the Service Public: the example of the Italian waste crisis], URP 2012, p. 831-853, 852.

²⁷⁷ Keller/Cirigliano (fn. 276), p. 839.

²⁷⁸ Fadeyeva v. Russia, Application no. 55723/00, para. 69.

²⁷⁹ Braig (fn. 272), p. 263.

²⁷⁹ Braig (fn. 272), p. 263.

tween the issues of waste emergency and the possible health impairment in its decision of 2012, Di Sarno and Others v. Italy, but considered the fact that the streets were littered with waste which was, in addition, illegally lit repeatedly, despite disputed scientific results concerning the measurability of the environmental damage.²⁸⁰

So-called *force majeure* may preclude the wrongfulness of an act of a state. 166. Force majeure is the occurrence of an irresistible force or of an unforeseen event, beyond the control of the State, making it materially impossible in the circumstances to perform international law obligations. Force majeure cannot be invoked if the situation of force majeure is due, either alone or in combination with other factors, to the conduct of the state invoking it, or if the state has assumed the risk of that situation occurring (Art. 23 Draft Articles on Responsibility of States for Internationally Wrongful Acts).

5.6.1.2 Duty to regulate; margin of appreciation²⁸¹

- To fulfil its obligation to protect in accordance with Art. 8 ECHR, the State is 167. also obliged to create the necessary legal framework and to take the necessary measures to protect those affected. This notwithstanding the margin of appreciation that can be invoked only regarding the question of how a risk shall be tackled – as long as it is tackled.
- In its remarks regarding the asbestos judgment Brincat and Others v. Mal-168. ta²⁸² the ECtHR puts it in a nutshell:

It found in particular that, in view of the seriousness of the threat posed by asbestos, and despite the room for manoeuvre ("margin of appreciation") left to States to decide how to manage such risks, the Maltese Government had failed to satisfy their positive obligations under the Convention, to legislate or take other practical measures to ensure that the applicants were adequately protected and informed of the risk to their health and lives²⁸³. (Emphasis added)

²⁸² Brincat and Others v. Malta, Application no. 60908/11.

²⁸⁰ Di Sarno and Others v. Italy, Application no. 30765/08, para. 81; Keller/Cirigliano

⁽fn. 276) 840 f. ²⁸¹ See also PÉTERMANN (fn. 240), p. 237 ff.

²⁸³ EGMR, factsheet – Environment and the European Convention on Human Rights, Juni 2016, S. 10, www.echr.coe.int/Documents/FS_Environment_ENG.pdf.

5.6.2 Examples of state obligation to protect from the jurisprudence of the ECtHR²⁸⁴

- 169. Under Art. 8 ECHR, various cases regarding the obligation to protect were decided including those:
 - concerning road noise²⁸⁵ and train noise²⁸⁶;
 - concerning noise and air pollution from a steel plant; ²⁸⁷
 - concerning noise emissions by publically licensed bars, pubs and discothegues;
 - concerning chemical factories with toxic emissions; ²⁸⁹
 - concerning water pollution; ²⁹⁰
 - concerning asbestos; ²⁹¹
 - in the field of nuclear tests (dangerous activities of the authorities, which affect the health of citizens with a certain probability²⁹²);
 - in the area of waste management (hazardous activities by individuals which are permitted by the state and which have a negative impact on health and well being of the population²⁹³).

5.6.3 Art. 8 ECHR and its application regarding climate change

The risks to health, physical integrity and well being of humans (Art. 8 para. 1 ECHR) that are associated with global warming are comparable or higher to those of the aforementioned cases. For example, excessive GHG emissions are similar to harmful air pollution and to be considered as dangerous activities of a state and/or individuals in the context of Art. 8 ECHR (see para. 169).

²⁸⁴ A systematic survey can be found in Pétermann (fn. 240), p. 307 ff. und 462 ff.

²⁸⁵ Deés v. Hungary, Application no. 2345/06 (Violation of Art. 6 para. 1 and Art. 8 ECHR), Grimkovskaya v. Ukraine, Application no. 38182/03 (Violation of Art. 8 ECHR).

²⁸⁶ Bor v. Hungary, Application no. 50474/08 (Violation of Art. 6 Ziff. 1 and Art. 8 ECHR).

²⁸⁷ Fadeyeva v. Russia, Application no. 55723/00 (Violation of Art. 8 ECHR).

²⁸⁸ Moreno Gómez v. Spain, Application no. 4143/02 (Violation of Art. 8 ECHR).

²⁸⁹ Guerra and Others, Application no. 14967/89 (Violation of Art. 8 ECHR).

²⁹⁰ Dzemyuk v. Ukraine, Application no. 42488/02 (Violation of Art. 8 ECHR).

²⁹¹ Brincat and Others v. Malta, Application no. 60908/11 (Violation of Art. 2 and 8 ECHR).

²⁹² McGinley v. the United Kingdom, Application no. 21825/93 (duty of protection confirmed under Art. 8 ECHR, but in this particular case, no violation because the complainants did not initiate certain proceedings on the national level).

²⁹³ López Ostra v. Spain, Application no. 16798/90 (Violation of Art. 8 ECHR); Guerra and others v. Italy, Application no. 14967/89 (Violation of Art. 8 ECHR); Giacomelli v. Italy, Application no. 59909/00 (Violation of Art. 8 ECHR); Brânduse v. Romania, Application no. 6586/03 (Violation of Art. 8 ECHR); Di Sarno and Others v. Italy, Application no. 30765/08 (Violation of Art. 8 ECHR).

- 171. Compared to the above-mentioned cases, however, not only is the scientific evidence regarding the dangers of climate change unprecedented, but also is the position of international climate change law. Against this factual and international law background, it is clear today that:
 - global warming must be limited to well below 2°C (para. 4.2.1 and 4.3.1);
 - to simply achieve the 2°C target, Switzerland's contribution must be at least 25% by 2020 and 50% by 2030 (para. 4.2.2);
 - if dangerous global warming cannot be avoided inter alia because of
 the actual failure of Switzerland to make an adequate contribution hereto a significant increase in the number of climate change-induced exceptionally hot summers will occur; and
 - the Applicants, finally, are exposed to a real and serious threat of damage to their physical integrity and health by these exceptionally hot summers.

Thus, there is a *clear* relationship between the State's failures regarding climate change policy and harmful environmental impacts. This relationship is more obvious than the one in *Di Sarno and Others v. Italy*.

Without further measures (of *all* states according to their best efforts, see para.139), private and family life of the Applicants (whose right to life is also infringed; see section 5.5) will be compromised through ever-increasing global warming and the according cumulation of days of exceptional heat. This to such an extent that a continuing impairment of this convention right must be assumed. Apart from the danger to the lives of the Applicants to be expected with a certain probability (para. 5.4.1), other adverse health effects and impairments of their well being also threaten them as has been proved due to the heatwaves caused by climate change in case of inadequate climate protection measures. Putting it in the words of the FOPH and the FOEN (from the German original):

Particularly in the elderly, (...) the cardiovascular system and the water balance are quickly overburdened, blood pressure, heart and respiratory rates rise. Dehydration, hyperthermia, fatigue, loss of consciousness, heat cramps and heat stroke are consequences of this disturbed heat regulation.²⁹⁵ (Emphasis added)

In the cases of Applicants 2–4, these adverse health effects have *already* materialised due to the excessive heat. For example, Applicant 2 suffered a

²⁹⁴ Vgl. *Tătar v. Romania*, Application no. 67021/01, para. 107.

²⁹⁵ FOPH AND FOEN (fn. 117), p. 3.

heat-related loss of consciousness, and Applicant 3 who suffers from cardiovascular illness was strongly impaired in her physical performance during heath waves. Applicant 4 was restricted during heatwaves insofar as she suffered more acute asthma and chronic obstructive pulmonary disease (SOPD).

• Medical certificate of Applicant 2 from November 15, 2016

Medical certificate of Applicant 3 from October Exhibit 13
 19, 2016

Medical certificate of Applicant 5 from October Exhibit 14
 4, 2016

174. Thus, Art. 8 para. 1 ECHR is affected and the positive obligation to protect is established. Even without evidence of any impairment of the health or well being of the Applicants, a serious threat of impairment suffices to give rise to the state's obligation to protect pursuant to Art. 8 para. 1 ECHR. ²⁹⁶

5.6.4 No justification for interference

- Impairment of Art. 8 para. 1 ECHR may be justified under Art. 8 para. 2 ECHR. In environmental matters, important conflicting public interests are, in particular, national economic interests and limitations that are to be accepted considering their social adequacy. ²⁹⁷
- However, when weighing interests, the aspects mentioned under para. 137 should be considered. It follows that a residual risk can only be accepted insofar as global warming remains well below 2°C (see para. 121). A proportionality assessment is also to be carried out, whereby it shall be examined in particular whether the measures taken by the authority being aware of the developments are reasonable. Here, this question must be answered in the negative due to the clearly insufficient emission reduction target, as well as, the inadequate reduction measures (see ss. 4.3.2 and 4.3.3). In addition, the protection of human health is of particularly great legal value. 299

²⁹⁸ Braig (fn. 272), p. 249.

²⁹⁹ As stated, for example, by the Federal Administrative Court in A-1300/2015 of 30 March 2016 E. 14.9.2.

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²⁹⁶ See Braig (fn. 272), p. 281; *Brânduşe v. Romania*, para. 67; *López Ostra v. Spain*, Application no. 16798/90; *Guerra and Others v. Italy*, Application no. 14967/89, para. 51; *Mileva and Others v Bulgaria*, para. 99.

²⁹⁷ Braig (fn. 272), p. 244.

Also under Article 8 ECHR, the climate policies of other countries do not provide a justification for a state's own failures (see para. 139 above). The mere existence of climate instruments is not sufficient to fulfil the positive obligation to protect under Article 8 ECHR; the instruments must also be effective in preventing threats to health, physical integrity and well being posed by global warming (respectively, in the global context, make an adequate state contribution to that end).

In this context, Keller/ Cirigliano have stated the following regarding Di Sarno and Others v. Italy³⁰⁰ (translated from the German original):

The Court states that the Italian State cannot invoke force majeure by pointing out that the reasons for the waste crisis, in the end, lie in the responsibility of private persons. To define the concept of force majeure the ECtHR explicitly refers to Art. 23 of the Articles on responsibility of states for internationally wrongful acts. The conduct (respectively inaction) of the Italian government cannot be excused by force majeure. In view of the legal nature of waste management as "dangerous activity", the state must rather fulfil **positive** obligations. It **should** have taken effective measures to protect the affected convention rights, which Italy has failed to do in all the previous years. Although legislative and administrative activism by the authorities could be seen (legal amendments on regional and national levels, nominations of "Commissari straordinari", introduction of competitive bidding, partial construction of processing plants, conducting scientific studies), however, these measures would all prove futile: The cause of the violation of Art. 8 para. 1 ECHR (waste in the streets, illegal dumps with uncontrolled or harmful emissions, setting fire to waste in the street) was not removed by this. (Emphasis added)

- 178. Force majeure applies neither in the case of inadequate climate policies of other states nor in the behaviour of Swiss companies or citizens. Switzerland has every opportunity to make the contribution to the "well below 2°C" target, which is expected from a scientific and international law perspective. From the outset, there can be no question of a conflicting insurmountable force or unforeseen circumstances (para. 166).
- 179. The obligation of the State to protect the Respondents pursuant to Art. 8 ECHR includes: 301
 - taking the necessary steps to end activities that contradict the national law; $^{\rm 302}$

³⁰¹ See Akandji-Kombe Jean-Francois, Positive obligations under the European Convention on Human Rights, Strassburg 2007, p. 47.

³⁰² Moreno Goméz v. Spain, Application no. 4143/02.

³⁰⁰ KELLER/CIRIGLIANO (fn. 276), 849.

taking all reasonable protective measures; therefore, responsibility of a state can arise where it refrains from regulating to guarantee the rights pursuant to Art. 8 ECHR. 303

In the words of the ECtHR, the effective protection of citizens who could be exposed to dangerous activities must be guaranteed at all times. 304

Conclusion: The failures of Respondents 1-3 regarding the necessary re-180. duction targets and measures are thus not only unlawful in the context of Article 10 Const. and Art. 2 ECHR but also violate Art. 8 ECHR.

5.7 Conclusion on the violation of the Applicants in their fundamental and human rights

- With the current failures to reduce greenhouse gas emissions, the Confed-181. eration (and thus in particular the Respondents) is not fulfilling its obligation under Art. 10 para. 1 Const. as well as Art. 2 and 8 ECHR to protect the Applicants. In addition, the Confederation is sanctioning violations of the precautionary principle and breaching international law.
- Besides the unconstitutionality, the infringement of convention rights car-182. ries particular weight.
 - The ECtHR obliges states in general to ensure early compliance with the Convention rights when dealing with hazardous activities and to act before the potentially irreversible health effects have already been incurred. 305 In addition, the ECtHR has become increasingly flexible in environmental matters, 306 arguably being prepared to develop appropriate requirements regarding the obligation to protect.
 - If a violation of convention rights is alleged in a reasonable manner, there is, by implication, also the right to file a complaint before a national court based on Article 13 ECHR.
 - In the PKK-judgment, the Federal Supreme Court had resolve the problem that Switzerland does not have constitutional jurisdiction (according to Art 190 Const. the "Federal Supreme Court and the other judicial authorities apply the federal acts and international law") in a case where guarantees of the ECHR were at issue. The Court found that if there is a conflict between federal acts and a Convention right, it will apply the

³⁰⁶ Braig (fn. 272), 222.

 $^{^{303}}$ Hatton and others v. the United Kingdom (GC), Application no. 36022/97, para. 119.

³⁰⁴ Di Sarno and Others v. Italy, Application no. 30765/08, para. 106.

³⁰⁵ Braig (fn. 272), 201 ff.

ECHR. "Thus, regarding Convention rights, the Federal Supreme Court undertakes constitutional review although this is not foreseen by the Constitution." (translated from German) 307

5.8 Excursus: Human rights and climate change in general

In the UN, efforts are underway to *increasingly* highlight the legal relationship between human rights and climate change and to work towards embracing human rights in climate negotiations.

Accordingly, the following sentence relating to human rights was included in the preamble to the Paris Agreement in December 2015:

Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, **respect**, **promote and consider their respective obligations on human rights**, the **right to health**, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and **people in vulnerable situations** and the right to development, as well as gender equality, empowerment of women and intergenerational equity... ³⁰⁸ (Emphasis added)

In June 2016, the UN Human Rights Council adopted a "Resolution on Human Rights and Climate Change".

Emphasizing that the adverse effects of climate change have a range of implications, which can increase with greater warming, both direct and indirect, for the effective enjoyment of human rights, including, inter alia, the right to life, the right to adequate food, the right to the enjoyment of highest attainable standard of physical and mental health, the right to adequate housing, the right to self-determination, the right to safe drinking water and sanitation and the right to development, and recalling that in no case may a people be deprived of its own means of subsistence... (Emphasis added)

Besides the aim to include the protection of human rights in climate negotiations, the UN Human Rights Council stresses the importance of climate protection for the most vulnerable people: 309

Expressing concern that, while these implications affect individuals and communities around the world, the adverse effects of climate change are felt most acutely by those segments of the popula-

309 UN Human Rights Council, Thirty-second session, Human rights and climate change, 28 June 2016, A/HRC/32/L.34.

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³⁰⁷ Keller Helen/Weber Yannik, Folgen für den Grundrechtsschutz und verfassungsrechtliche Gültigkeit der "Selbstbestimmungsinitiative" [Consequences for the protection of fundamental rights and constitutional validity of the "Self-determination Initiative"], AJP 8/2016, p. 1010. ³⁰⁸ UN Human Rights Council, Thirty-second session, Human rights and climate change, 28 June 2016, A/HRC/32/L.34, section 9.

tion that are already in vulnerable situations owing to factors such as geography, poverty, gender, age, indigenous or minority status, national or social origin, birth or other status and disability... (Emphasis added)

According to the United Nation's Office of the High Commissioner for Human Rights, this means for the individual states that:

Because of the impacts of climate change on human rights, States must effectively address climate change in order to honour their commitment to respect, protect and fulfil human rights for all. Since climate change mitigation and adaptation measures can have human rights impacts; all climate change-related actions must also respect, protect, promote and fulfil human rights standards.³¹⁰ (Emphasis added)

These statements *support* an actual course of action, namely that the states should not consider the issue of global warming separately from human rights within their legislation. The fact that human rights can actually be violated by inadequate climate legislation was demonstrated under Sections 5.4–5.6 in detail.

6. Ensuring legal protection of the Applicants' rights

6.1 Procedural rights of ECHR

6.1.1 ECHR guarantees and national procedural law in general

- According to Art. 6 para. 1 ECHR, every person has a right to a fair hearing before a court regarding disputes involving civil rights and obligations. According to Art. 13 of the ECHR, there is a right to an effective remedy before a national authority if an ECHR convention right is violated. Art. 6 para. 1 and 13 ECHR have the character of fundamental rights and are directly applicable in Switzerland. 311
- The Federal Supreme Court accordingly recognises that an entitlement to (national) judicial protection can directly arise from international law, in particular from Art. 13³¹² or Art. 6 para. 1 ECHR³¹³.

313 BGE 125 II 417.

³¹⁰ OHCHR, Human Rights and Climate Change, www.ohchr.org/EN/Issues/HRAndClimate Change/Pages/HRClimateChangeIndex.aspx.

TOPHINKE ESTHER, Bedeutung der Rechtsweggarantie für die Anpassung der kantonalen Gesetzgebung [Meaning of the legal guarantee for the adaptation of cantonal legislation], ZBI 2006, p. 88-110, p. 90.

³¹² SEFEROVIC GORAN, Art. 189 Const. N 62, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015; BGE 129 II 193 relates to a travel ban imposed by the Federal Council.

189. If Art. 6 para. 1 and/or Art. 13 ECHR are relevant, a ruling on real acts can be requested also concerning the unlawful omissions attributed to Respondent 1. The exceptions to legal protection against real acts as found in Art. 189 para. 4 do not apply when the right to legal protection arises from international law, in particular from Art. 13 or Art. 6 para. 1 ECHR.³¹⁴

In this regard, the Federal Supreme Court made a statement in BGE 125 II 417, E. 4a(-e), confirmed in BGE 130 I 388, E. 5.2 (translated from German original):

If the present dispute affected civil rights and obligations pursuant to Art. 6 para. 1 ECHR, the complainant would indeed be entitled to a judgement by an independent and impartial tribunal. It is therefore necessary to consider whether the disputed confiscation (by means of a Federal Council Decree concerning propaganda material dangerous to the state) falls within the scope of Art. 6 para. 1. (Emphasis added)

In BGE 129 II 193 E. 3.2 the Federal Supreme Court stated (translation from the German original):

(...) it can be claimed reasonably that (with the **Federal Council Decree** relating to entry bans) there is an interference with Art. 8 para. 1 ECHR. Consequently, the Complainant may not be **deprived of his right to file an appeal pursuant to Art. 13 ECHR** in order to assert this objection. (Emphasis added)

6.1.2 Right to judicial review by an independent and impartial tribunal (Art. 6 para. 1 ECHR)

6.1.2.1 Civil dispute

- 190. The right to a judicial review according to Art. 6 para. 1 ECHR exists concerning 'civil disputes'. This term also covers administrative decisions by governments, provided that they interfere directly with civil rights and obligations. 315
- 191. According to the Federal Supreme Court judgment of 3 April 2001, 1A.310/2000, E. 3c, disputes concerning protection against pollution also fall into the category of 'civil disputes' (translated from German): 316

"Legal disputes concerning protection against pollution can be qualified to be of 'civil-law nature' falling under Art. 6 para. 1

³¹⁵ BGE 130 I 388 E. 5.1 p. 394.

³¹⁴ SEFEROVIC (fn. 312).

³¹⁶ This is also what the ECtHR stated in its judgment *Balmer-Schafroth c. Switzerland* from 26 August 1997, relied upon by the Federal Supreme Court.

ECHR for example: if serious implications for the health or physical integrity of the complainants are to be feared."

The right to protection of physical integrity that is protected *under Art. 8 ECHR*, is categorised a 'civil law claim' within the meaning of Art. 6 para. 1 ECHR by the ECtHR *and consistent with case law*. ³¹⁷ This must apply all the more if a serious impact on life is feared within the meaning of *Art. 2 ECHR*.

- In the present case, there is a 'civil dispute' within the meaning of Art. 6 para. 1 ECHR, because it is scientifically proven that due to an alarming increase in global temperatures, a substantial increase in extraordinarily hot days will occur that will which has also been proved have serious and concrete impacts on the lives and health (physical integrity) of the Applicants (see ss. 4.4, 5.4, 5.5, and 5.6).
- 193. A state liability complaint would, as a matter of fact, also be categorised a 'civil dispute'. However, the Applicants cannot be expected to wait until their lives are actually harmed and damage is caused to their health, to file such a claim against the Confederation. Art. 25a APA was created for situations like this (see s. 6.2.1 below).

6.1.2.2 Existence of an arguable right in domestic law

- The applicability of Art. 6 para. 1 ECHR requires, besides the 'civil dispute', a right recognised in domestic law. In practice, the term is used in a broad sense. This requirement is already satisfied when a dispute concerns the legality of a state measure. For the applicability of Art. 6 ECHR, neither a legal right nor an obligation to protect concerning the state measure is required. 319
- The present case is a dispute concerning a subjective right that is enshrined in domestic law: the right to life in accordance with Art. 10 para. 1 Const. (for details, refer to s. 5.4). In addition, it is a dispute over the legality of enforcement and application of the CO_2 Act (for details, refer to s. 8.5 be-

³¹⁹ KLEY (fn. 317), p. 185.

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³¹⁷ KLEY ANDREAS, Gerichtliche Kontrolle von Atombewilligungen [Judicial control over nuclear authorisations], EuGRZ of 14 May 1999, S. 184, www.rwi.uzh.ch/dam/jcr:00000000-3d12-7c07-0000-00006bfbc011/Gerichtliche_Kontrolle_von_Atombewilligungen_EuGRZ_05_99.pdf; J. Velu / R. Ergec, La Convention européenne des Droits de l'Homme [The ECHR], Bruxelles 1990, S. 390, Ziff. 437; see e.g. *H. v. Grossbritannien*, para. § 69, p. 58; Urteil Rasmussen, Serie A, Nr. 87, Ziff. 32 = EuGRZ 1985, 513.

³¹⁸ BGE 126 I 144 p. 150; *Baraona v. Portugal*, para. 36-44, esp. para. 44.

low) as well as the Parliament Act (ParlA) and the GAOA (for details, refer to s. 8.2 below).

6.1.2.3 Genuine and serious dispute as well as the question of the causal connection

In addition, it is required that the dispute is of a "genuine and serious nature". The outcome of the proceedings must be directly relevant to the "civil law" claims. There must be more than a "tenuous connection or remote consequences" between the right in question and the results of the proceedings. 321

In *Balmer-Schafroth v. Switzerland*, the connection between the operation of a nuclear power plant and the threat to health of residents was denied, which, *inter alia*, KLEY faulted in a convincing manner in his criticism of this decision (translation from German original):

"Legitimately, the dissenting judges have made it clear that the claim of the connection being too tenuous and remote is not convincing: 'Would one have to wait until the population suffers the first radiation exposure in order to only then take legal action!" 322

- 197. For the Applicants, the present case is a "genuine and serious dispute". The connection is much more than tenuous between:
 - the omissions of the Respondents with respect to the 2°C target and the "well below 2°C" target, whereby the excessive greenhouse gas emissions lead to a *dangerous* warming of the climate (s. 4.3.1) and, the more the climate warms up, to an increasing number of heatwaves (para. 4.4.2.2), which would have been fewer without the omissions (results of the proceedings), and
 - the right of the Applicants to preventive protection against impairment of their lives and health by climate change-related heatwaves at least to an extent that should presumably keep climate change under some control, which requires compliance with the "well below 2°C" target, or at the very least the 2°C target (right in question; ss. 5.4, 5.5 and 5.6).
- 198. In legal terms, three points should be noted:
 - The argument in the case of Balmer-Schafroth v. Switzerland, from which a part of the judging panel differed with a dissenting opinion

³²⁰ BGE 130 I 388 E. 5.1.

³²¹ KLEY (fn. 317), p. 185.

³²² KLEY (fn. 317), p. 186.

and was criticised in literature, ³²³ cannot be applied here. Unlike a nuclear authorisation or a nuclear incident where the probabilities of risk occurrence are relevant (which were not substantiated well enough in the specific case of the complainants), the alleged omissions of the Respondents in this case (the insufficient greenhouse gas reductions to avoid a dangerous climate warming) have a scientifically proven, actual and direct effect on the Applicants as a particularly vulnerable group (s. 4.4.2). If the Respondents carry on not fulfilling their obligation to protect and making an adequate contribution to the "well below 2°C" target, as well as the 2°C target, they decisively contribute to the increase of the consequences for the Applicants: the number of hot days increases (s. 4.4.2.2) just like the number of the undisputedly associated deaths (para. 90), by which mainly the most vulnerable population group of the Applicants is affected (para. 4.4.3). Thus, in the present case, there is a *scientifically proven*, *clear connection* between omissions with respect to the prevention of dangerous climate warming and the right to life and physical integrity of the Applicants.

- 2. If the Respondents fail to take steps to ensure that the greenhouse gas emissions are limited to a degree to be as harmless as possible, they cannot justify their violation of the obligation to protect by stating that other parties (such as parliament) or other states would do the same as well, or by stating that Switzerland is a small country (see the statements regarding force majeure in para. 175 and ss. 5.4.2.3 and 5.4.2.4 above). An "iintervening cause" of the aforementioned connection cannot be asserted. Rather, every state actor has an obligation to protect the Applicants in its respective field of competence.
- 3. The Applicants' lives and health are more threatened than the average population by the failure of the State to comply with its obligation to protect. There is actually no population group that is affected as much by the failures of the Respondents regarding climate change as the Applicants. Their Legal Requests directed to

Besides Kley see also Müller/Schefer (fn. 196), fn. 72; Schmidt-Radefeldt Roman, Ökologische Menschenrechte. Ökologische Menschenrechtsinterpretation der EMRK und ihre Bedeutung für die umweltschützenden Grundrechte des Grundgesetzes [Ecological human rights. Ecological interpretation of ECHR guarantees and its importance for the fundamental rights of the German Constitution protecting the environment], Diss. Heidelberg, Baden-Baden 2000, p. 172 ff.

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the Respondents in the beginning are thus *genuine and serious*. If one doubted that the request of the Applicants is genuine and serious, the issue of climate change would virtually become a legal vacuum regarding human rights.

199. Concerning the requirement of a genuine and serious dispute, the ECtHR does not, however, require a causal connection.

Nevertheless, it is emphasised that in the climate area, naturally, causation cannot be proven strictly due to the inherent complexity, the "collective action" problem³²⁴ and the global nature of the problem. However, this should not create a disadvantage for the Applicants because an otherwise a *legal vacuum* could arise in this area extremely critical for humanity.

In *Urgenda Foundation v. State of the Netherlands*, the District Court of The Hague notably addressed the breach of obligation to protect, but not causation. ³²⁵ Also the Grand Chamber of the European Court of Justice demonstrated openness in *ERG SpA and others v. Ministero dello Sviluppo economico and others* ³²⁶ with regard to causality in the context of environmental liability. ³²⁷ It considered the "presumption" of causality as sufficient "if there are plausible indications for this presumption". ³²⁸ Furthermore, *common law jurisdictions* foresee exceptions for the strict "but for" test to establish causality and rather have applied a "market share liability" concept.

If the requirement of causation has been eased in the area of climate change in order to avoid a legal vacuum, stricter requirements should *a fortiori* not be applied for the "tenuous connection" according to the jurisprudence of the ECtHR.

³²⁶ ERG SpA and others v Ministero dello Sviluppo economico and others, 9 March 2010.

³²⁷ PEETERS MARJAN, The regulatory approach of the EU in view of liability for climate change damage, in: FAURE MICHAEL/PEETERS MARJAN (Eds.), Climate Change Liability, Cheltenham and Northampton 2011, p. 131.

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³²⁴ IPCC (fn. 11), p. 17: "Climate change has the characteristics of a collective action problem at the global scale, because most GHGs accumulate over time and mix globally, and emissions by any agent (e.g., individual, community, company, country) affect other agents."

³²⁵ Urgenda Foundation v. The State of the Netherlands (fn. 146).

³²⁸ ERG SpA and others v Ministero dello Sviluppo economico and others (fn. 326), para. 57. ³²⁹ This reasoning might already have developed "into a general principle of law", BARTON (fn. 143), p. 84 f.; 689 P.2d 368; 570 So.2d 275; 539 N.E.2d 1069; cert denied, 493 U.S. 944; 823 P.2d 717.

6.1.2.4 In the present case, no "Actes de gouvernement"

200. The applicability of Art. 6 para. 1 ECHR is sometimes negated if the authority has complete discretion within the meaning of the so-called *prérogatives* discrétionnaires or actes de gouvernement. 330 This exclusion criterion, however, is not relevant here. For as long as the Respondents do not fulfil their duties to protect, there is no room for free, political discretion or actes de gouvernement: the state has no margin of appreciation regarding the question, whether it wants to fulfil its legal obligation to meet the "well below 2°C" target or the 2°C target; its margin of appreciation is limited to selecting the specific measures with which it wants to achieve this mandatory target (above para. 5.4.1.3).

6.1.3 Right to an effective remedy (Art. 13 ECHR)

6.1.3.1 Principle, conditions and significance in the present case

201. Under Art. 13 ECHR, anyone who considers himself to have been prejudiced by a measure allegedly in breach of rights and freedoms guaranteed by the Convention has the right to an effective remedy before a national authority.331 Thus, every state action, be it an act of the government or the administration or the judiciary, comes within the scope of Art. 13 ECHR. 332

The Federal Supreme Court in BGE 129 II 193 E. 3.2 noted this with the following statement (translated from German):

(...) it can be claimed reasonably that (with the Federal Council Decree relating to entry bans) there is an interference with Art. 8 para. 1 ECHR. Consequently, the Complainant may not be deprived of his right to file an appeal pursuant to Art. 13 ECHR in order to assert this objection. (Emphasis added)³³³

Thus, the Swiss Federal Supreme Court follows the practice of the ECtHR, see e.g. Klass v. FRG³³⁴:

Article 13 requires that where an individual considers himself to have been prejudiced by a measure allegedly in breach of the Convention, he should have a remedy before a national authority in order both to have

³³⁰ BGE 130 I 388 E. 5.1.

³³¹ BGE 129 II 193 E. 3.1.

³³² Müller Markus, Rechtsschutz im Bereich des informalen Staatshandelns, Überlegungen am Beispiel der staatlichen Empfehlungen [Legal protection in the case of informal state action, considerations/deliberations using the example of state recommendations], ZBI 96/1995, p. 533 ff., p. 543. 333 Likewise: BGE 138 I 246 not published E. 1.1.

³³⁴ Paragraph 64.

his claim decided and, if appropriate, to obtain redress. Thus Article 13 must be interpreted as guaranteeing an 'effective remedy before a national authority' to everyone who claims that his rights and freedoms under the Convention have been violated. (Emphasis added)

This requirement is readily met. The Applicants claim in more than just "a reasonable manner" that their right to life according to Art. 2 para. 1 ECHR (see s. 5.5 above) and their right to respect the private and family life under Art. 8 para. 1 ECHR (see s. 5.6 above) are interfered with. Furthermore, the Applicants show that the interferences cannot be justified (ss. 5.5 and 5.6). Therefore, their human rights *have been violated*. In the present context, therefore, it has to be ensured that the right of the Applicants to an effective remedy is respected.

6.1.3.2 Relation to Art. 6 para. 1 ECHR and significance of Art. 13 ECHR in the present constellation

- Although in contrast to Art. 6 para. 1 ECHR, the right to an effective remedy under Art. 13 ECHR does not require that legal remedy to a *court* must be available. The option of appeal before an *independent* administrative body *may also suffice*, if this body can examine observing the minimally necessary procedural rules according to the rule of law the claims of the concerned party and, if applicable, annul the contested measure or eliminate its impacts.³³⁵ Thus, Art. 13 ECHR is, in effect, relevant only where Art. 6 para. 1 ECHR is not pertinent.
- In the present constellation, Art. 13 ECHR is nevertheless at least of subsidiary importance. *If Respondent 1 would issue a ruling* itself despite Art. 47 para. 6 GAOA and the request of the Applicants (see para. 16 above), "a complaint to a hierarchically superior authority" would be "ruled out from the outset" (translated from German). ³³⁶ Accordingly, the path to the Federal Supreme Court would be open based on Art. 13 ECHR.

However, if the ruling is issued by Respondents 2, 3 or 4, Respondent 1 – being also addressed by this request – would not be sufficiently independent in its role as appellate body, considering that Respondent 1 is significantly involved in the omissions claimed by the Applicants due to its hierarchical position and political weight.

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 $^{^{335}}$ BGE 129 II 193 E. 3.1; BGE 128 I 167 E. 4.5 p. 174; BGE 126 II 377 E. 8d/bb p. 396 with references; BGE 118 Ib 277 E. 5 p. 283 ff.; BGE 111 Ib 68 E. 4 p. 72. 336 BGE 129 II 193 E. 4.1.

- 205. Although in principle, Art. 13 ECHR does not require an independent court; the above-mentioned considerations mean that for the assessment of a possible complaint (in terms of Art. 13 ECHR) against the requested ruling, only the Federal Administrative Court and/or the Federal Supreme Court would be appropriate. It is clear in this context, however, that based on Art. 13 ECHR, the Respondents are at least required to issue the requested ruling.
- It remains to be added that the theoretical possibility of initiating legal pro-206. ceedings regarding state liability in cases of actually suffered damage will not suffice under consideration of Article 13 ECHR. For in state liability cases, courts may award only damage compensation, but not provide for elimination of an unlawful situation. 337

6.2 The function of Art. 25a APA to ensure the procedural rights of the ECHR

6.2.1 Origin and purpose of Art. 25a APA

Beginning in 1995 with the landmark ruling in the matter of the book "Das 207. Paradies kann warten" (Paradise can wait)³³⁸, elucidating the practices of sects, which was written on behalf of the Zurich Education Department, the Federal Supreme Court has shown ways how concerned private individuals can attain legal protection even against acts of the state that do not come as formal rulings – i.e. against real acts. The court's considerations emerged based on the fact that the ECHR contains procedural guarantees in Art. 6 para. 1 and Art. 13, which are so general that they cover all types of state actions.³³⁹ However, until the introduction of Art. 25a APA into Swiss law, victims of unlawful real acts could only obtain "effective" legal protection retrospectively and, without restitutive effect, by means of state liability.340

³³⁷ KELLER/CIRIGLIANO (fn. 276), p. 844; Di Sarno and others v. Italy, Paragraph 87.

³³⁸ BGE 121 I 87.

³³⁹ RIVA ENRICO, Neue bundesrechtliche Regelung des Rechtsschutzes gegen Realakte, Überlegungen zu Art. 25a VwVG [New federal regulation of legal protection against Real Acts, considerations regarding Art. 25a APA], SJZ 103/2007 337, p. 338.

³⁴⁰ Kiener Regina/Rütsche Bernhard/Kuhn Mathias, Öffentliches Verfahrensrecht [Public procedural law], 2nd edition 2015, N 1721; see also BGE 128 I 167 E. 4.5 and BGE 118 Ib 473 ff. on the issue of the Confederation's liability for the information activities of its authorities in connection with a listeriosis epidemic caused by cheese consumption.

- 208. However, it cannot be expected of the victims of unlawful real acts to wait until damage occurs. This gap in national law had to be filled.³⁴¹ On 12 March 2000, the people and the cantons finally included the guarantee of access to the courts as a new fundamental right in the Federal Constitution (Art. 29a Const.).
- The guarantee of access to courts gives every person the right to have their legal dispute heard by a judicial authority. The concept of legal dispute is broad in this context. If the state affects the rights or obligations of private individuals through its actions and if there is disagreement over the legality of these actions, the concerned individuals have the right to request a court to decide the issue. It is an entitlement regardless of what form of action the state took, i.e. also in the case of de facto administrative actions (real acts). It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took, It is an entitlement regardless of what form of action the state took of the state took.
- Initiated by the Council of States Legal Affairs Committee, Art. 25a finally found its way into APA, based on which a ruling regarding a real act can be requested.³⁴⁵ As part of the complete revision of the federal judiciary, the Federal Council (surprisingly³⁴⁶) did not propose any corresponding provision³⁴⁷; searching for corresponding statements in the related dispatch would therefore be futile.³⁴⁸ Against this background, the adoption of Art. 25a APA was indeed a necessary step in order to take into account the guarantees enshrined in Art. 29a Const. as well as Art. 6 para. 1 and Art. 13 ECHR.³⁴⁹ The Council of States Legal Affairs Committee apparently also relied on Art. 29a Const. and the doctrine³⁵⁰ and closed the significant gap in the system of legal protection with Art. 25a APA.³⁵¹

HARD/WEISSENBERGER PHILIPPE (Hrsg.), Praxiskommentar Verwaltungsverfahrensgesetz (VwVG) [Administrative Procedure Act (APA), Commentary for Practitioners], Zürich 2016.

351 HÄNER (fn. 350), N 3 and Footnote 9: This loophole has been complained about on several

HÄNER (fn. 350), N 3 and Footnote 9: This loophole has been complained about on severa occasions and there were a wide variety of proposals to close it, see RICHLI PAUL, Zum

³⁴¹ BGE 140 II 315 E. 4.4.

³⁴² BBI 1997 1 ff., 523.

³⁴³ RIVA (fn. 339), p. 339; TOPHINKE (fn. 311), p. 88 ff., 94.

³⁴⁴ WALDMANN BERNHARD, Art. 29a BV N 12, in: Bernhard Waldmann (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

³⁴⁵ Riva (fn. 339), p. 340.

³⁴⁶ RIVA (fn. 339), p. 339.

³⁴⁷ The changes to APA proposed by the Federal Council were presented to the Parliament in the context of the draft of the Federal Administrative Court Act (FACA), cf. BBI 2001 4539, 4554 ff.

³⁴⁷ See Botschaft zur Totalrevision der Bundesrechtspflege [Dispatch on the complete revision of the federal judiciary] from 28 February 2001, BBl 2001 4202, esp. 4403 ff.

³⁴⁸ See Botschaft zur Totalrevision der Bundesrechtspflege [Dispatch on the complete revision of the federal judiciary] from 28 February 2001, BBI 2001 4202, esp. 4403 ff.

³⁴⁹ See corresponding points in RIVA (fn. 339), pp. 337 ff. ("Rechtsschutzdefizite gegenüber Realakten im bisherigen Recht [Deficits in legal protection against real acts in current law]")

³⁵⁰ TOPHINKE (Fn. 311), S. 95; HÄNER ISABELLE, Art. 25a N 1, in: WALDMANN BERN-HARD (WESSCHAPERSON BER

- 211. With the adoption of Article 25a APA, there was no deviation from the original concept of administrative procedure based on the concept of rulings: rather, Art. 25a APA "creates the basis for a separate, retrospective administrative proceeding, which leads into a ruling on real acts" (translated from German). 352
- The opportunity granted against the international law background to con-212. duct a judicial review of real acts appears to have found its way into the APA because Parliament decided against direct contestability. From an international law perspective, the latter would also have been possible. 353 With Art. 25a APA, the legislator, however, decided that in advance of a possible (legal) appeal to put in place a procedure for the issuance of a ruling. In this way, the administrative authority has the possibility to resolve an unlawful act first.

The provision of Art. 25a APA is, however, only consistent with international law - the requirements of which were to be met - when it completely guarantees legal protection in accordance with Art. 6 para. 1 and 13 of the ECHR. There is no apparent intention to limit legal protection quarantees under constitutional and international law with the inclusion in APA. The possibility of excluding certain matters from the court judgment was ultimately laid down in Art. 29a Const. (see s. 6.2.2).

Accordingly, the following applies at the cantonal level: if the provisions of the cantonal administrative procedure legislation do not foresee the possibility of requesting a ruling on a real act or of its direct contestability, the corresponding right to legal protection can be directly backed with the constitutional and international procedural guarantees, in particular those arising from Art. 6 and 13 ECHR.354

Rechtsschutz gegen verfügungsfreies Staatshandeln in der Totalrevision der Bundesrechtspflege [Regarding legal protection against real acts in the comprehensive revision of the federal judiciary], AJP 1998 1435 f., and RICHLI PAUL, Zum verfahrens- und prozessrechtlichen Regelungsdefizit beim verfügungsfreien Staatshandeln [Regarding the deficit in administrative und judicial procedural law against real acts], AJP 1992 201, advocating for the extension of legal protection for real acts. FLUECKIGER ALEXANDRE, L'extension du contrôle juridictionnel des activités de l'administration [Extending judicial control of administrative acts], 1998 184 ff., proposed that the person concerned has to submit application request which may be rejected by means of a ruling under Art 5 APA; TSCHANNEN PIERRE, Amtliche Warnungen und Empfehlungen [Official warnings and recommendations], ZSR 1999 II 449 developed a proposal very similar to Art. 25a APA; Parliament obviously took into account these approaches in the doctrine; see also BGE 121 I 87 E. 1b; BGE 128 II 156 E. 4b.

354 KIENER/RÜTSCHE/KUHN (fn. 340), N 432.

³⁵² Mayhall Nadine, VwVG Praxiskommentar zum Bundesgesetz über das Verwaltungsverfahren [APA Federal Act on Administrative Procedure, Commentary for Practitioners], 2009, p. 1-22, N 15. ³⁵³ See BGE 130 I 388.

6.2.2 Exceptions to the guarantee of access to courts (Art. 29a Const.)

- On principle, the legal guarantee of *Art.* 29*a* Const. applies comprehensively; based on Art. 6 para. 1 and 13 ECHR, it must also apply comprehensively. A limitation of the right to have a case determined by a judicial authority, however, is permitted in "certain exceptional categories of case" in accordance with the second sentence of Art. 29*a* Const. With this wording, reference is made on the one hand to Art. 189 para. 4 Const. (which is examined below under 7.3.1.2), and on the other hand, to specific statutory exceptions.
- 214. Statutory exceptions may formally be adopted as law, whereby the exemption in the law must be *explicit*. This can notably be the case in matters that are hardly litigable, so-called *actes de gouvernement* (para. 200).
- There is no exclusion from judicial assessment laid down anywhere concerning the area of climate change law, as well as with regard to legislative action or inaction during a preliminary legislative procedure.
 - Legal exceptions would, anyhow, be hardly tenable because provisions regarding protection of the climate and the preliminary legislative procedure cannot escape the legal category.³⁵⁵
 - Finally, it can also not be ruled out that in cases where individuals are affected in their rights by decisions of predominantly political content (*actes de gouvernement*), litigable disputes may arise.³⁵⁶
- 216. The limit under Convention law for the adoption of exceptions in terms of second sentence of Art. 29a Const. is articulated in Art. 6 para. 1 ECHR³⁵⁷ and Art. 13 ECHR³⁵⁸. The fact that these provisions can be invoked in the present case was demonstrated above (s. 6.1).

³⁵⁵ WALDMANN (fn. 362), N 23.

³⁵⁶ WALDMANN (fn. 362), N 23.

³⁵⁷ WALDMANN (fn. 362), N 23.

³⁵⁸ Schindler Benjamin, Die Befangenheit der Verwaltung [Bias of the administration], Zurich 2002, p. 155-171, 168.

6.2.3 Excursus: Relation of Art. 25a APA to state liability cases

- Persons affected by a real act are basically free to claim compensation for damages (state liability) or to request a ruling on real acts under Art. 25a APA: The legal protection options are alternatives to each other. 359
- 218. Doctrine rightly points out that a person affected by a real act *may indeed* even be required to submit a request under Art. 25a APA in order to not be held responsible in a later state liability procedure for not complying with his or her duty to limit damages.³⁶⁰ The Applicants put forward their request explicitly *inter alia* with this motivation.

6.2.4 Art. 25a APA in the present proceedings

- 219. The genesis of Art. 25a APA shows that Art. 25a APA may not, in any case, be interpreted more narrowly than Art. 29a Const. 361 Art. 29a Const. concerns both factual actions (*real acts*) and *internal administrative acts*, provided that they affect the rights or obligations of individuals; the required level of direct effect must not be determined just with a view of the legislation concerned (i.e. Art. 25a APA) but instead independently based on the functions of the guarantee of access to the courts in the individual case. 362
- 220. National formal requirements and therefore also Art 25a APA should not undermine the right to appeal contained in the ECHR.³⁶³

Therefore, Art. 25*a* APA must not be interpreted more narrowly than Art. 29*a* Const.; the formal requirements laid down in Art 25*a* APA concerning real acts should not thwart claims arising from Art. 6 para. 1 and 13 ECHR (para. 216). If there is no irreconcilable contradiction, Art. 25*a* APA should be interpreted to be in compliance with international law in terms of Art. 6 para. 1 and 13 ECHR (Art. 5 para. 4 Const.³⁶⁴).

WALDMANN BERNHARD, Art. 29a Const. N 12, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

³⁵⁹ KIENER/RÜTSCHE/KUHN (fn. 340), N 436.

³⁶⁰ KIENER/RÜTSCHE/KUHN (fn. 340), N 436.

³⁶¹ HÄNER (fn. 350), N 4.

³⁶³ LANTER MARKUS, Ausschöpfung des innerstaatlichen Instanzenzuges (Art. 35 Ziff. 1 EMRK) [Exploitation of the domestic stages of appeal (Art. 35 para. 1 ECHR)], Zurich, Basel, Geneva 2008, p. 68.

³⁶⁴ LOOSER MARTIN E., Verfassungsgerichtliche Rechtskontrolle gegenüber schweizerischen Bundesgesetzen [Federal constitutional judicial review of the Swiss federal laws], Zurich 2011, Rn. 230.

- 221. It follows for the present request, that the Respondents must issue a ruling if
 - Art 25a APA is clearly relevant, i.e. even under narrow interpretation;
 - Art 25a APA is relevant in terms of constitutional interpretation based on Art. 29a Const.;
 - Art 25a APA is relevant based on an interpretation of Art. 6 para. 1 and
 13 ECHR, taking into account international law doctrine.

Art. 25a APA is relevant based on all the above criteria, which is why the requested ruling must be issued.

Even if the applicability of Art. 25*a* APA is in doubt for reasons not apparent, in accordance with Art. 6 para. 1 and 13 ECHR, the possibility to review administrative acts or omissions must be ensured.

Taking everything into account, it is clear that based on Art. 25*a* APA and Art. 6 para. 1 and Art. 13 ECHR, the Applicants can assert their rights protected by the Federal Constitution and the ECHR.³⁶⁵

Accordingly, the present request asks for the issuance of a ruling in accordance with Art. 25*a* APA and Art. 6 para. 1 and 13 ECHR.

6.3 Conclusions

- The interpretation of Art. 25a APA in the light of Art. 29a Const., Art. 6 para. 1 and 13 ECHR, as well as of the historical and constitutional context, establishes the Applicants are entitled to the issuance of a ruling in terms of Art. 25a APA as demanded with the requests for legal remedy 1–4.
- Additionally, because Art. 2 and 8 ECHR have been infringed, there is the right of the Applicants to *effective remedy* according to Art. 13 ECHR (s. 6.1.3).

Because there is no higher ranking independent authority other than the Respondents as is required by Article 13 ECHR, a *court* may conduct a judicial review.

Moreover, the right to a court judgment arises in accordance with Art. 6 para. 1 ECHR (see s. 6.1.2).

 $^{^{365}}$ FLUECKIGER (fn. 164), p. 619, argues that it is particularly appropriate to strengthen the implementation of environmental legislation by way of protecting the environment through human rights.

In order to ensure the legal protection guaranteed through the ECHR, the Respondents therefore have to issue the requested ruling regardless of forms of action and responsibilities.

7. Fulfilling the requirements of an application for issuing a ruling through a real act

7.1 In general

- Because real acts do not contain rights or impose obligations on an individual, they cannot be directly challenged. Revertheless, real acts may affect the legal status of individuals. Therefore, anyone who demonstrates an interest that is worthy of protection can demand from the authority responsible for acts based on federal public law and which affect rights or obligations under Art. 25a para. 1 APA, that it refrains from, discontinues or revokes unlawful acts (a) or confirms the illegality of such acts (c). The authority shall decide by way of a ruling (Art. 25a para. 2 APA), which shall open up the path to appeal.
- Applications may only be dismissed if the requirements arising from Art. 25a para. 1 APA (being affected in rights or obligations, legitimate interest, federal public law, competent authority) are not met; the question of the unlawfulness of the omission may not be considered, however, before entering into the substance of the case.³⁶⁸

7.2 Real act

7.2.1 Broad term

The standardised definition for "real act" has emerged neither in doctrine, nor in practice. Real acts are often associated with administrative and state actions that do not take on the quality of a ruling. In judicial practice, a real act is defined as an administrative measure that, unlike rulings according to Art. 5 APA, does not establish rights and duties, but is purely factual.

³⁶⁹ Weber-Dürler (fn. 395), N 6.

³⁶⁶ FAC Judgement A-5646/2009 from 18 May 2010, E. 3.1.

³⁶⁷ BGE 130 I 369 E. 6.1.

³⁶⁸ HÄNER ISABELLE, Art. 25a N 52, in: WALDMANN BERNHARD/WEISSENBERGER PHILIPPE (Hrsg.), Praxiskommentar Verwaltungsverfahrensgesetz (VwVG) [Administrative Procedure Act (APA), Commentary for Practitioners], Zurich 2016.

This allows for a wide interpretation.³⁷⁰ In literature, all those actions are considered as real acts that are not taken in one of the traditional legal forms such as a ruling, contract, plan or regulation.

Since the term "real act" is only seen in the title of Art. 25a APA, whereas the text of the provision only mentions "acts" which affect the rights and obligations of individuals, it can be assumed that the legislature – probably in view of the difficulties in interpretation – intended to cover all administrative acts which affect the rights and obligations of individuals. Which kind of act may be the subject of a ruling pursuant to Art. 25a APA, can thus be decided solely on the basis of the requirements laid down in para. 1, and especially the question of whether rights and obligations are affected.³⁷¹

The true limitation of a real act can thus be seen in its distinction first from rulings and second from the abundance of real acts that only affect private individuals so remotely that the question of legal protection does not arise in the first place. ³⁷²

230. Based on the fact that Art. 25a has been added to APA, RIVA concludes that real acts are acts concerning the implementation and application of the law.³⁷³

They do not, however, include "legislative provisions" such as federal acts and ordinances (Art. 163 para. 1 Const. Art. 182 para. 1 Const.). Consequently, federal acts and ordinances cannot be the subject of abstract judicial review (nevertheless, the preliminary review of federal ordinances is permitted).³⁷⁴

Administrative directives³⁷⁵ (common for social security or tax law), however, are not sources of law in the legal sense³⁷⁶ and thus are not regarded as legislative acts.³⁷⁷ They shall be assigned to the category of real acts.³⁷⁸ The

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 $^{^{\}rm 370}$ Häner (fn. 350), N 6, with reference to FAC judgment A-5646/2009 of 18 May 2010 and BGE 130 I 369 E. 6.1.

³⁷¹ HÄNER (fn. 350), N 8.

³⁷² RIVA (fn. 339), p. 341; WEBER-DÜRLER (fn. 395), N 15.

³⁷³ RIVA (fn. 339), p. 341.

³⁷⁴ KIENER/RÜTSCHE/KUHN (fn. 340), N 1721.

Administrative directives bind the authorities only. Vis-à-vis legal subjects and courts, purely administrative directives are standardised (general, abstract) but legally not binding statements of the administrative authority regarding the interpretation and application of the relevant legal provisions, see judgment of the Federal Supreme Court of July 18, 2016 2C_514 / 2015 E. 3.1.

³⁷⁶ Muster Adrian/Haldimann Christian, Rechtsschutzlücken bei der Kontrolle von Praxisfestlegungen im Steuerrecht [Gaps in legal protection regarding the review of practice specifications in tax law], ASA 82 337 ff., p. 343.

³⁷⁷ Reiter Catherine, Gerichtsinterne Organisation: Best Practices [Internal organisation of courts: Best Practices], Zurich 2015, p. 21-54, fn. 207 with further references.

decision of not adopting legislative provisions is also not of legislative character.379

Real acts are, for example, internal administrative orders such as service orders³⁸⁰ as well as organisational orders³⁸¹. The term real act also includes acts of implementation, information, education, official publications, press releases, and informal agreements.³⁸² Furthermore, real acts may also be seen in official disclosure³⁸³, assurances, warnings and recommendations³⁸⁴, official statements, or consultation procedures (the latter two for example for the attention of other administrative authorities or the Parliament³⁸⁵).

Pursuant to the second sentence of Art. 88 para. FSCA - i.e. in cantonal 231. matters - with regard to voting and elections, explanatory commentaries and information about ballot procedures also belong to the category of real acts.³⁸⁶ The wording of a poll question³⁸⁷, delivery of voting and election documents³⁸⁸ or other preparatory acts for a poll³⁸⁹ are also real acts.³⁹⁰ The objection that a ballot was not properly prepared as well as the information situation in the period preceding a referendum can also be made subject of proceedings.391

The same applies in principle at federal level, notably for dispatches of the Federal Council to Parliament and of statements of the Federal Council

³⁷⁸ Müller Markus (fn. 2), p. 313 ff., footnote No. 38; differently: Tschannen Pierre/Zimmerli ULRICH/MÜLLER MARKUS, Allgemeines Verwaltungsrecht [General Administrative Law], 3rd Ed., Bern 2009, § 38.

³⁷⁹ Seiler Hansjörg, Art. 82 N 88, in: Seiler Hansjörg/von Werdt Nicolas/Güngerich Andreas/ OBERHOLZER NIKLAUS (Hrsg.), Bundesgerichtsgesetz (BGG) [Federal Supreme Court Act (FSCA)], Bern 2015.

³⁸⁰ Weber-Dürler (fn. 395), N 6.

³⁸¹ Weber-Dürler (fn. 395), N 6.

³⁸² HÄNER (fn. 350), N 7 with further references.

³⁸³ Wiederkehr René/Richli Paul, Praxis des allgemeinen Verwaltungsrechts – Band I, Eine systematische Analyse der Rechtsprechung [Practice of general administrative law - Volume I, A systematic analysis of case law], 2012, N 2836; MCs ZH from 21 Sept. 2011, VB.2011.00086, E. 5.2; from 7. Sept. 2011, VB.2011.00326, E. 4.2.

³⁸⁴ WIEDERKEHR/RICHLI (fn. 383), N 2836; FAC Judgement A-3144/2008 from 27 May 2009, E. 13.1 (recommendations of the Federal Data Protection and Information Commissioner). 385 Häfelin Ulrich/Müller Georg/Uhlmann Felix, Allgemeines Verwaltungsrecht [General Administrative Law], 7nd Edition 2016, para. 1420.

³⁸⁶ Wiederkehr/Richli (fn. 383), N 2838; Federal Supreme Court judgment 1C_82/2009 from 29 June 2009, E. 2.2.2.

³⁸⁷ BGE 132 I 104 E. 3.

³⁸⁸ Federal Supreme Court judgment 1C_243 / 2011 from 15. Sept. 2011; ZBI 113/2012

p. 143. $^{\rm 389}$ Federal Supreme Court judgment 1C_385 / 2012 from 17 Dec 2012 E. 1.2; ZBI 114/2013 p. 542. ³⁹⁰ SEILER (fn. 379), N 112.

³⁹¹ See BGE 131 I 442.

- commenting the issues of a referendum.³⁹² With regard to the implications of Art. 189 para. 4 Const. see s. 7.3.1.2.
- Such state acts do typically not determine any binding legal consequences in individual cases, and are thus not to be considered as rulings in terms of Art. 5 APA. However, they can still interfere with rights and obligations of private individuals, 393 which is why, as required by constitutional and international law (para. 6.2), Art. 25a APA makes it possible to take legal action.

7.2.2 Unlawful omissions as real acts in terms of Art. 25a APA

"Acts" in terms of Art. 25a APA cannot, according to doctrine, be merely understood as positive action, but likewise as an *omission*, i.e. inaction.³⁹⁴ The legislature failed to mention this separately in its "somewhat hasty editing of Art. 25a APA" (translated from German).³⁹⁵

For example, according to MARKUS MÜLLER, a citizen with irritated mucous membranes may claim that the State failed to issue ozone warnings and recommendations on environmentally friendly behavior. ³⁹⁶ As part of a claim to the "right to healthy air", there was a demand that FOEN increase public relations about the harmfulness of polluting activities and healthy living alternatives. BEATRICE WEBER-DÜRLER stated that in this case "the authority did not sufficiently recognise the reference of this request to Art. 25*a* APA" (translated from German). ³⁹⁷

This understanding of the term "act" used in Art. 25a APA was confirmed by the Federal Supreme Court in BGE 140 II 315 E. 2.2, *Nuclear power plant Mühleberg* (translated from German):

³⁹³ Wiederkehr/Richli (fn. 383), N 2836; BGE 121 II 473 E. 2c, BGE 116 Ib 260 E. 1; Federal Supreme Court judgment 5P.199/2003 from 12 August 2003 E. 1.1; FAC judgment C-5058/2007 from 29 Sept. 2009, E. 1.1.1.

MÜLLER MARKUS, Rechtsschutz gegen Verwaltungsrealakte [Legal protection against administrative real acts], in: Tschannen Pierre (Hrsg.), Neue Bundesrechtspflege [New Judicial System], Bern 2007, p. 355.

Weber-Dürler Beatrice, Art. 25a N 11, in: AUER Christoph (Hrsg.), Kommentar zum Bundesgesetz über das Verwaltungsverfahren (VwVG) [Commentary regarding the Federal Act on Administrative Procedure (APA)], Zurich 2008, with further references.

Müller (fn. 394), p. 355.

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³⁹² Bergier Julian-Ivan/Glaser Andreas, Rechtsschutz gegen Realakte: Bundesgericht schafft Klarheit [Legal protection against real acts: Federal Supreme Court clarifies], SJZ 111/2015 169, S. 171; regarding classification of administrative acts in the period preceding ballots as real acts see also, see also Kiener/Rütsche/Kuhn (fn. 340), N 1844.

³⁹⁷ WEBER-DÜRLER (fn. 395), N 11.

«It can be left open (...) whether the Respondent asserts an unlawful act or an unlawful omission of acts because the real act within the meaning of Art. 25a APA includes both.» (Emphasis added)

- Therefore "Acts", in term of Art. 25a APA, also include the omission of acts 235. that aim for compliance with a GHG reduction target of 25% (up to 40%) that is constitutional and in accordance with international law. Such "acts", for example, also include the omission of informing that, from a fundamental and human rights perspective and based on the precautionary principle, a corresponding emission reduction *target* must be set. The same applies concerning the omission of measures required to achieve this objective and also the 20% target.
- 236. Like positive acts, omissions must be *unlawful* in material terms. ³⁹⁸ State failure to act is only unlawful when there is a specific positive obligation of the authorities to act (BGE 140 II 315 E. 2.1, Nuclear power plant Mühleberg). Legal protection shall be granted in every case of violation of a legal norm: The narrow concept of illegality that prevails regarding state liability law does not pertain to Art. 25a para. 1 APA. 399
- 237. Consequently, if the State is obliged to act due to a specific obligation to act and if the omission is contrary to federal public law, then positive action can be demanded.400

7.2.3 The preliminary legislative procedure as real act

It takes months and even years for a fully formulated bill to be drafted. The 238. so-called preliminary legislative procedure involves federal offices and departments in particular. The preliminary legislative procedure includes preparing the preliminary draft, the consultation process with cantons and interested actors of civil society, compiling the dispatch and the bill; it is followed by the "parliamentary phase". 401 The obligation of the Federal Council to direct the preliminary legislative procedure derives from the duty to submit bills with all details to Parliament (Art. 7 para. 1 GAOA). 402

³⁹⁸ HÄNER (fn. 368), N 13.

 $^{^{399}}$ Häner (fn. 368), N 13 with further references. 400 Häner (fn. 368), N 11 with further references.

⁴⁰¹ FOJ, Gesetzgebungsleitfaden, Modul Gesetze, Verordnung und Parlamentarische Initiative [Guidelines on legislative drafting, Module "Acts, ordinances and parliamentary initiatives"], October 2014, www.bj.admin.ch/dam/data/bj/staat/legistik/hauptinstrumente/module-d.pdf,

⁴⁰² KÜNZLI (fn. 466), N 13.

239. The preliminary legislative procedure was originally regulated through the Directive of the Federal Council of 6 May 1970 regarding the preliminary legislative procedure. This was replaced and elaborated on by the Guidelines on legislative drafting of the Federal Office of Justice (FOJ). To brevity, we have included diagrams of the legislative procedure from the module "Acts, Ordinances and Parliamentary Initiatives" below. They represent the individual stages of the procedure and their classification as well as who is responsible for which actions.

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 $www.bj. admin.ch/dam/data/bj/staat/legistik/hauptinstrumente/module-d.pdf,\ paras.\ 7-10.$

THE SWISS FEDERAL COUNCIL, Bekanntmachungen von Departementen und anderen Verwaltungsstellen des Bundes, Richtlinien über das Vorverfahren der Gesetzgebung vom 6. Mai 1970 [Notices of departments and other administrative bodies of the Confederation, Directives regarding the preliminary legislative procedure of 6 May 1070], www.amtsdruckschriften.bar.admin.ch/viewOrigDoc.do?id=10044700.

www.amtsdruckschriften.bar.admin.ch/viewOrigDoc.do?id=10044700.
⁴⁰⁴ FOJ, Gesetzgebungsleitfaden [Guidelines on legislative drafting]; 3rd Ed.2007, www.bj.admin.ch/bj/de/home/staat/legistik/hauptinstrumente.html.

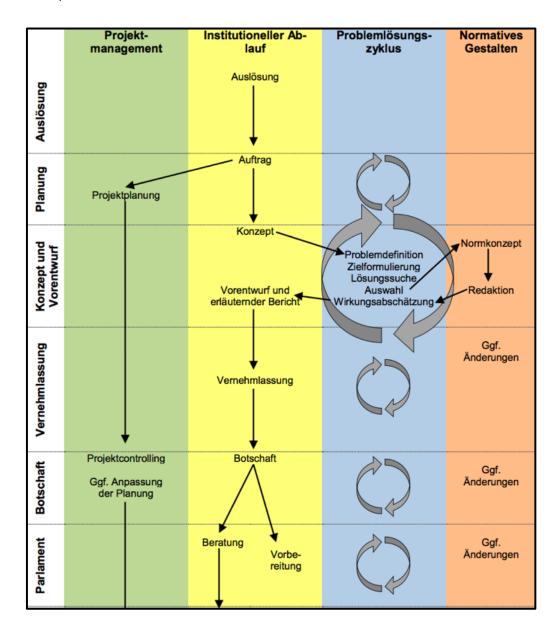
⁴⁰⁵ FOJ, Gesetzgebungsleitfaden, Modul Gesetze, Verordnung und Parlamentarische Initiative [Guidelines on legislative drafting, Module "Acts, ordinances and parliamentary initiatives"], October 2014, www.bj.admin.ch/dam/data/bj/staat/legistik/hauptinstrumente/module-d.pdf. ⁴⁰⁶ Source for all figures: FOJ, Gesetzgebungsleitfaden, Modul Gesetze, Verordnung und Parlamentarische Initiative [Guidelines on legislative drafting, Module "Acts, ordinances and parliamentary initiatives"], October 2014,

The preliminary legislative procedure: Overview

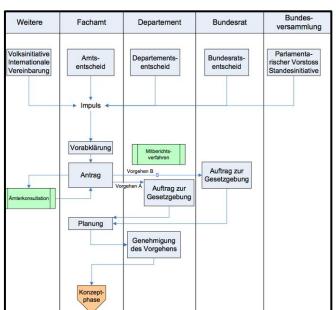
(translated only partially) Source: See footnote 406

Green: Project Management Yellow: Institutional Procedure Blue: Problem Solving Cycle Orange: Design of Norms

- 1 Trigger
- 2 Planning
- 3 Conceptual Phase and Preliminary Draft
- 4 Consultation
- 5 Dispatch to Parliament

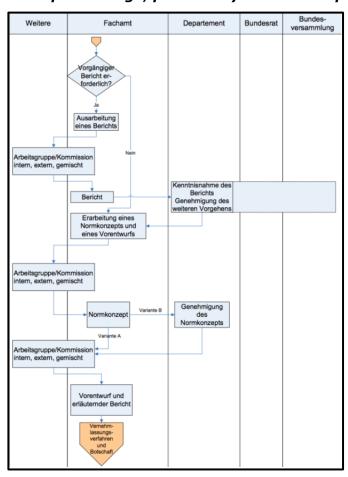


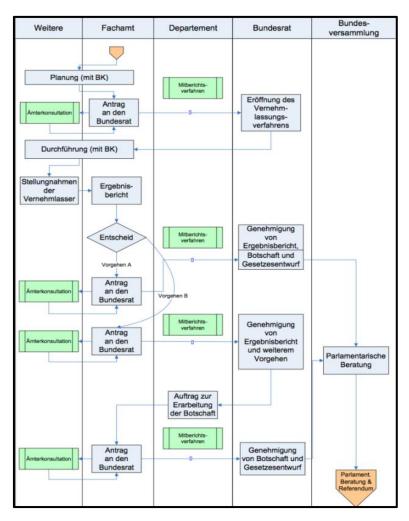
The following figures, taken from the same source, show important phases of the preliminary legislative procedure in more detail, but without translation.



Triggering and planning of the procedure

Conceptual design, preliminary draft and explanatory report





Consultation and dispatch to Parliament

- All the activities represented in the diagrams of para. 239 above are to be qualified as *real acts* for the following reasons:
 - They are acts that do not determine any legal consequences but are rather oriented to a factual outcome (see para. 229 above).
 - They result from application of Art. 181 Const. and Art. 7 GAOA and thus represent a *case of the application of law* (see para. 230).
 - Clearly, these acts do not constitute a ruling in terms of Art. 5 APA (see para. 228).
 - They complement the list of examples of real acts to be found in doctrine and judgments of the Federal Supreme Court (see para. 230 f.).
 - This also applies to preliminary drafts (including explanatory reports and drafts for consultation) and the bill to Parliament. Even the bill has no binding legal effect, but presents a non-binding, nevertheless crucial actual proposal to Parliament. The bill results from application of Art. 181 Const. and Art. 7 GAOA and thus represents a case of application of the law. Bills are not yet sources of law; they are adopted by decision of the

Federal Council together with the accompanying dispatch⁴⁰⁷, also this being a real act.

Important: The decision *not* to draft a law (and thus also a bill) – either completely or partially – and not to submit it to parliamentary decision is not legislation (see para. 230), but rather an actual administrative act and thus a "real act". The same must apply to *legislative inaction*, which is the case when the preliminary legislative procedure is *not initiated at all or not performed to the extent necessary*.

241. Real acts as mentioned above, admittedly, may only in rare cases – individually or at large– encroach in an unlawful manner on rights and duties of private individuals – in this case regarding the right to life and physical integrity (see para.229 above). Such a situation "may" not exist (Art. 5 Const. and para. 310 below). Accordingly, the limit of Art. 25a APA is not defined by the "act" in itself; the actual limit is set by rulings on the one hand and all those real acts on the other hand which affect private individuals only remotely, therefore not raising the question of legal protection. 408

However, if, as in the present case, the acts interfere in an unlawful way in the rights of the Applicants with potentially irreversible and serious consequences due to intentional omissions (s. 4.2.3), a right to the issuing of a ruling exists. This is because the intent and purpose of Art. 25a APA is to ensure the legal protection guaranteed under international law in Switzerland (see above s. 6.2.1). The Confederation, in implementing a national solution, has decided that real acts are not directly contestable, but that rather an official ruling must be requested first – accordingly, the Applicants filed such a request.

The only limitation of legal protection against real acts (thus also the possibility to file request for a ruling) is based on the second sentence of Art. 29*a* Const. (in conjunction with Art. 189 para. 4 Const.), which is limited by Art. 6 para. 1 and 13 ECHR (see above s. 6.2.2).

At the very least, therefore, a ruling must be issued in accordance with Art. 6 para. 1 and 13 ECHR (see s. 6.3 above).

The preliminary legislative procedure has significant creative power. In this stage of the procedure, *important decisions* are *forestalled*; structure

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 $^{^{407}}$ FOJ, Gesetzgebungsleitfaden [Guidelines on legislative drafting] (fn. 406), N 16.

⁴⁰⁸ RIVA (fn. 339), p. 341; Weber-Dürler (fn. 395), N 15.

⁴⁰⁹ KÜNZLI (fn. 466), N 14.

and content of the future law are regularly coined by the Federal Council's draft, its transfer to Parliament closing the phase of preliminary legislative procedure. It is all the more important that the authorities participating in the preliminary legislative procedure abide by the Constitution, and do not violate it, as in the present case, through intentional omissions. This is emphasised by FOJ as well (translated from the German original):

Although the Federal Supreme Court and the other law-applying authorities cannot deny the application of a federal act (Art. 190 Const.) even when they consider the provision as unconstitutional, it should be understood that the federal legislature has to abide by the Federal Constitution (...). It is therefore very important that the constitutionality of the drafts is thoroughly examined by the Administration beforehand.⁴¹¹ (Emphasis added)

Accordingly, it is also important that legal protection is ensured in the rare cases where rights and duties of private individuals are affected by deliberate unlawful omissions in the preliminary legislative procedure with potentially irreversible effect. If this were not so, an essential part of administrative action would be free of legal protection with regard to such serious omissions. In particular, not only the procedural guarantees of international law, but also the right of affected citizens to be protected by the state would be undermined. In the current situation this protection requires that the state *becomes active in regulatory terms:* The state must take *all* actions that are necessary for ensuring the state obligation to protect. This also includes effective legislative activities.

7.3 Authorities responsible for real acts pursuant to Art. 25a APA

The Federal Council, its departments, their subordinate services, and other entities of the Federal Administration are all considered "authorities" (Art. 1 para. 2 let. a APA). The Respondents are thus "authorities" within the meaning of Art. 25a APA.

⁴¹¹ FOJ, Gesetzgebungsleitfaden [Guidelines on legislative drafting]; 3rd Ed.2007, www.bj.admin.ch/bj/de/home/staat/legistik/hauptinstrumente.html, p. 182.

⁴¹⁴ EGMR, factsheet - Environment and the European Convention on Human Rights, June 2016, p. 10, www.echr.coe.int/Documents/FS_Environment_ENG.pdf.

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⁴¹⁰ KÜNZLI (fn. 466), N 14.

⁴¹² L.C.B. v. the United Kingdom, Application no. 23413/94, para. 36.

⁴¹³ KELLER/CIRIGLIANO (fn. 276), 849.

⁴¹³ Keller/Cirigliano (fn. 276), 849.

- The local, factual and functional jurisdiction of the authority arises from the 245. respective organisational legislation. 415 The authority that (clearly) believes that it does not have jurisdiction shall refer the matter without delay to the competent authority (Art. 8 para. 1 APA). This is not a mere authorisation, but a duty. 416 If the authority believes its jurisdiction is not certain, then it should immediately enter into an exchange of views with the authority that it considers to have jurisdiction (Art. 8 para. 2 APA).
- 246. In the present case, a part of the omissions concerns the adoption of rules regarding the protection of humans in their natural environment. Under Art. 74 para. 1 Const, the "Confederation" is responsible; and, additionally, measures in the energy sector are based on Art. 89 Const.

Law-making on the whole is a very complex process, involving many players.417 The Respondents collectively and in their interaction respectively are the "competent authorities". They must propose to Parliament emission targets compliant with constitutional and international law as well as corresponding measures to reduce emissions. Or they at least have to ensure that the range of possibilities existing today is exhausted and all measures possible today are implemented. They have failed to do so.

247. The Respondents know ex officio how they have to cooperate with each other and what actions they must take in order to cease the omissions mentioned in this request and to become active. Nevertheless, the list below explains the competencies assigned to each Respondent.

7.3.1 **Respondent 1: Federal Council**

7.3.1.1 Responsibilities of the Federal Council

- 248. The Federal Council is collectively responsible for its governmental functions (Art. 4 GAOA). The Federal Council regularly reviews the tasks of the Confederation for compliance with the objectives arising from the Constitution and legislation and develops forward-looking solutions for state action (art. 5 GAOA).
- The Federal Council may in particular submit bills to Parliament, i.e. it has a 249. right to initiate legislation (Art. 181 Const.). It submits drafts of constitu-

⁴¹⁵ HÄNER (fn. 368), N 30.

⁴¹⁶ HÄNER (fn. 1), p. 3.

⁴¹⁷ See the schemata from the legislative guidelines.

tional amendments, of federal acts and decrees to Parliament and issues ordinances, provided it is authorised to do so under the Constitution and by law. It conducts the preliminary legislative procedure (Art. 7 GAOA).

The Federal Council also directs the federal administration (Art. 35 para. 1 250. GAOA). It may delegate the immediate fulfilment of tasks to project management bodies or units of the Federal Administration (Art. 36 para. 2 GAOA).

The Federal Council enforces in particular the CO₂ Act and issues the necessary implementing provisions (Art. 39 para. 1 CO₂ Act). This was done when the CO₂ Ordinance was adopted.

The Federal Council also periodically evaluates the effectiveness of the measures under the CO₂ Act as well as the necessity for additional measures (Art. 40 para. 1 CO₂ Act).

7.3.1.2 Acts of Respondent 1 as real acts in terms of Art. 25a APA

- 251. While acts of the legislature do not fall within the scope of the APA (see Art. 1 para. 2 APA) Art. 25a APA applies to actions of all federal authorities as defined in Art. 1 para. 2 APA. In particular, also actions of the Federal Council fall into the scope of Art. 25a APA (cf. Art. 1 para. 2 let. b APA). 418
- However, pursuant to Art. 189 para. 4 Const., acts of the Federal Council 252. (as well as those of Parliament) cannot be contested. This rule was controversial in the deliberations in Parliament and it is criticised in the doctrine; some want to abolish this provision.419

Yet, this exception does not come into play as far as it contradicts international law. 420 This applies even more so when - as in the present case there is a conflict with human rights provisions of international law.⁴²¹ Because Art. 6 para. 1 ECHR guarantees access to the courts, the exclusion of legal protection by the Constitution does not apply in this particular case.⁴²² The same also applies to 13 ECHR.⁴²³

422 BERGIER/GLASER (fn. 392), p. 172, WALDMANN (fn. 362), N 18; HALLER WALTER, Art. 189 Const. N 61, in: EHRENZELLER BERNHARD/SCHINDLER BENJAMIN/SCHWEIZER RAINER J./VALLENDER KLAUS

⁴¹⁸ The fact that real acts of the Federal Council with adverse effects may be subject to court judgment is also demonstrated by state liability legislation (Art. 10 para. 2 GLA), cf. Weber-DÜRLER (fn. 395), N 37.

⁴¹⁹ Seferovic (fn. 312), N 59, with further references.

⁴²⁰ BGE 113 II 362; BGE 111 V 202; BGE 110 V 76; BGE 109 Ib 173; BGE 106 Ib 402; BGE 105 Ib 296.

⁴²¹ BGE 125 II 417 E.4.d (PKK decision).

- 253. These consequences also apply to real acts. According to BERGIER/GLASER, though contesting of real acts is ruled out due to Art. 189 para. 4 Const. in accordance with Art. 29a Const., this applies only as long as no civil dispute in terms of Art. 6 para. 1 ECHR is implied. Like Art. 13 ECHR, this provision serves as an absolute limit for the exclusion of legal protection against real acts (see point 6.1).⁴²⁴
- Therefore, a ruling or an act of Respondent 1 can be contested in a court directly based on Art. 6 para. 1 ECHR and Art. 13 ECHR (see s. 6.1 regarding recent cases). Thus, the Federal Council is also required to issue a ruling regarding a real act⁴²⁵ respectively get it issued by Respondent 2 (Art. 47 para. 6 GAOA; see para. 16).

In particular, there is no reason to grant legal remedy on the ground of state liability law to persons affected by unlawful acts only after the damage has already occurred (see Art. 10 para. 2 GLA).

255. Finally, it should be noted that Art. 189 para. 4 Const. does not apply to acts of departments or subordinate administrative units (therefore acts of Respondents 2, 3 and 4) when Federal Council affairs were delegated for independent execution. 426 In such a case, legal protection shall be ensured in terms of Art. 177 para. 3 Const.

7.3.2 Respondent 2: DETEC

- At the federal level, DETEC is responsible for the protection and preservation of natural resources and protection against natural hazards (Art. 1 para. 2 and 3 OrgO-DETEC). DETEC is hierarchically superior to the "administrative units of DETEC", such as Respondents 3 and 4 (see Art. 3 OrgO-DETEC).
- As part of the implementation of the CO₂ Ordinance, DETEC has the competence to amend annexes 2 to11 of the CO₂ Ordinance (Art. 135 CO₂ Ordinance). Furthermore, DETEC shall ask the Federal Council for additional measures in accordance with Art. 3 para. 2 CO₂ Ordinance if a sector-

A. (Hrsg.), Die schweizerische Bundesverfassung [The Swiss Constitution], Zurich / St. Gallen 2014.

 $^{^{423}}$ Trümpler Ralph, Notrecht [Emergency law], Zurich 2012, p. 125-142, N 227.

⁴²⁴ Bergier/Glaser (fn. 392), p. 172.

⁴²⁵ Weber-Dürler (fn. 395), N 37.

⁴²⁶ WALDMANN (fn. 362), N 19.

specific interim target listed in paragraph 1 in terms of Art. 3 para. 1 CO_2 Ordinance is not achieved.

7.3.3 Respondent 3: FOEN

- 258. FOEN is the competent authority with regard to the protection of people
 - from excessive pollution especially by harmful substances (Art. 12 para. 2 OrgO-DETEC let. b); as well as
 - from natural hazards (Art. 12 para. 2 OrgO-DETEC let. c)

and pursues the goal of long-term conservation and sustainable use of natural resources (such as climate) and the remedy of existing impairments (Art. 12 para. 2 OrgO-DETEC let. a).

Specifically, FOEN is responsible for assessing matters relating to climate protection in accordance with Art. 39 para. 4 CO_2 Act. Generally, it implements the CO_2 Ordinance (Art. 130 para. 1 CO_2 Ordinance). The FOEN also obtains the reports from the cantons regarding technical measures to reduce CO_2 emissions from buildings (Art. 16 para. 3 CO_2 Ordinance).

7.3.4 Respondent 4: FOE

260. The Federal Office of Energy has responsibilities in accordance with Art. 130 para. $2-6~\text{CO}_2$ Ordinance. Here the responsibilities of FOE in terms of passenger cars as well as the building program shall be mentioned in particular.

7.4 Rights and obligations affected by the real act

7.4.1 In general

The subject of requests in terms of Art. 25a APA may only be administrative acts that "affect rights or obligations". Unlike rulings (see Art. 5 APA) such acts are not aimed at regulating of rights or obligations. "Being affected" in rights and obligations under Art. 25a para. 1 APA is a legal position that arises either from fundamental rights or another legal title (e.g. a directly applicable regulation). The prerequisite of "being affected" in rights and

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⁴²⁷ BGE 140 II 315 E. 4.3.

 $^{^{\}rm 428}$ Häner (fn. 368), N 19 with further references.

obligations is, according to the unanimous opinions in literature and the jurisprudence of the Federal Administrative Court as well as the Federal Supreme Court, considered satisfied *in any case* where a status protected by *fundamental rights* is affected.⁴²⁹

In addition, legal positions may also result from directly applicable legislation or its goals. HÄNER stated (translated from the German original):

It is also conceivable that the legal position results from directly applicable legislation (...). The Federal Supreme Court derived [in the case of Mühleberg] the entitlement to issuing of a ruling in accordance with Art. 25a APA (...) from the purpose of the Nuclear Energy Act to protect people and the environment against the dangers of nuclear energy. But it also affirmed the fundamental right of the Applicants to an obligation of the state to protect and based this (...) on the right to life (Art. 10 para. 1 Const.) and personal freedom (Art. 10 para. 2 Const.). 430

- In connection with Art. 25a APA, interference with fundamental rights is most significant⁴³¹ (see s. 6.1.1 regarding the role of the Federal Supreme Court in the improvement of access to justice against real acts under the ECHR).
- However, the interference with fundamental rights does not have to be ascertained without a doubt at the time of application uncertainty does not lead to dismissal of application. A reflective effect from the real act that is relevant with regard to fundamental rights suffices, thus the fact that an "act" could potentially amount to an interference. Therefore, parties concerned must only make a credible allegation of an interference with fundamental rights. If the potential interference of fundamental rights is credible, then the request is to be examined on its merits (if the other prerequisites are also met). Also the question, whether the scope of a fundamental right is affected has only to be considered when examining the case on its merits. This is also consistent with WALDMANN, who has found that the term "being affected" in rights and obligations cannot be determined by only considering Art. 25a APA, but shall rather be defined with reference to the quarantee of access to the courts in each individual case.

⁴³² MÜLLER (fn. 394), p. 357.

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⁴²⁹ FAC Judgment A-101/2011 vom 7. Sept. 2011, E. 4.3; BGE 140 II 315 E. 4.3.

⁴³⁰ HÄNER (fn. 368), S. 19; cf. BGE 140 II 315 E. 4.6 ff.

⁴³¹ HÄNER (fn. 350), N 19.

⁴³³ HÄNER ISABELLE, Årt. 25a N 28, in: WALDMANN BERNHARD (Hrsg.), VWVG [APA], Zurich, Basel, Geneva 2009; Müller (fn. 394), p. 354.

⁴³⁴ HÄNER (fn. 368), N 28.

⁴³⁵ BERNHARD WALDMANN Art. 29a Const. N 12, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

7.4.2 Fundamental and human rights of the Applicants (potentially) infringed

Through the failure to reduce emissions, the Respondents contribute to the increase risk of heatwaves in comparison to what is being experienced to-day (ss. 4.3 and 8). These failures are relevant regarding fundamental rights: They clearly have a reflective effect on the Applicants affected in particular by these heatwaves with regard to their right to life (Art. 10 Const., Art. 2 ECHR) as well as their freedom of private and family life (Art. 8 ECHR; see ss. 5.4, 5.5 and 5.6 above).

As shown above (ss. 4.4, 5.4, 5.5 and 5.6), the Applicants' rights to life and freedom of private and family life according to Art. 10 para. 1 Const. as well as Art. 2 and 8 ECHR have been infringed through the omissions of the Respondents. If the fundamental rights of the Respondents are violated, then certainly their potential infringement in terms of para. 261 ff. can be reasonably demonstrated.

7.4.3 The legal status of the Applicants also due to *ratio legis* of the CO₂ Act

A legal position of the Applicants that is worthy of protection arises not only from fundamental and human rights, but also from the CO_2 legislation based on Art. 74 Const. The primary purpose of the provision is not to protect the "natural environment" but rather the focus is on the "protection of the population" [and its natural environment] against damage or nuisance. The Constitution thus protects the environment predominantly as a precondition.⁴³⁶

The *ratio legis* of the CO₂ Act arises from the anthropocentric understanding of Art. 74 Const., namely the protection of the population from the dangers of global warming.⁴³⁷ The legal position of the Applicants therefore also follows from the *ratio legis* of the CO₂ Act.

⁴³⁷ See BGE 140 II 315 E. 4.6.

⁴³⁶ GRIFFEL ALAIN, Art. 74 Const. N 24, 25 and 42, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

7.4.4 Failure to reduce emissions is likely to cause damage to health and life; predictability of interference with the rights of the Applicants

- 269. The failure to reduce emissions by the Respondents is likely to interfere with the fundamental and human rights of the Applicants (see above s. 4.4), if with a part of the doctrine one requires this criterion to be met for being affected in rights and obligations, a prerequisite not a demanded in FAC A101 / 2011 of 7 September 2011 E. 4.3, as well as BGE 140 II 315.
- As shown above, it is scientifically established that failure to meet the emission reduction targets leads to a greater number of heatwaves, and these in turn, lead to an increase in deaths associated with heat (s. 5.4.1.1). Likewise, it is proven that the heatwaves, in particular, affect the health and lives of the Applicants negatively (s. 4.4).
- This connection is not interrupted by external causes such as acts of Parliament or other countries. Parliament, for example, might very well have agreed to a reduction target of 25% if Respondents had not presented the 20% target (and certainly not as the main proposal) and if Respondents had adequately informed Parliament (see s. 8.2.1 below). Parliament went beyond the proposal of the Respondents when it demanded that all emission reductions must be made domestically (para. 68). This can be understood as a sign that Parliament considered the Respondents' proposal to not be extensive enough. In particular, however, Parliament is also bound by the Constitution and by international law, and it was thus not allowed to set an emission reduction target that is unlawful under constitutional and international law. Accordingly, the above-described connection cannot have been interrupted by acts of Parliament.

Moreover, the various shortcomings in enforcement (see s. 8.5), which will lead to the failure to even meet the 20% target in Switzerland (s. 4.3.2 – Respondent 2 estimates an actual emission reduction of only 12.3% by 2020), can be directly attributed to the failures of the Respondents.

The fact that the insufficient emission reductions in Switzerland caused by the Respondents are not the sole cause for increasing global warming is a result of the global nature of the causes and effects of this phenomenon. The fact remains, however, that these insufficient reductions *contribute* to the increased occurrence of heatwaves. Reference is made to the connection between the failure to reduce emissions and the violation of fundamental rights in paragraph 198.

In particular, the Respondents knew and know that a reduction of at least 25% to 40% by 2020 is necessary to achieve the 2°C target as shown in paragraph 40. They also know that the domestic reduction of 30% by 2030 is not enough to bring Switzerland in line with the 2°C path nor the "well below 2°C" path. The Respondents also know, and it is foreseeable for them, that the *Applicants* are affected in particular by the consequences of failed emission reductions because of their vulnerability (s. 4.4), and therefore, their lives, health and well being are endangered.

7.5 The interests affected by the real act are worthy of protection

7.5.1 In general

- According to Art. 25a APA, the Applicants must have an "interest that is worthy of protection". The "interest that is worthy of protection" in terms of Art. 25 a APA is, at least in principle, to be understood the same as in the other articles of the APA, especially as in Art. 48 para. 1 let. c APA (locus standi). The following are demanded:
 - a particular disadvantage in terms of being especially affected and
 - a legal or factual interest that must be prevailing and practical.⁴³⁸
- That the Applicants do have an interest worthy of protection in having their requests assessed arises already from the fact that *their rights* are affected by the real act (obligations are not for discussion here) (see above s. 7.4). This also follows from the case law relating to Art 25*a* APA, owing to the substantial parallels between the requirements of the interest that is worthy of protection and those of the affected rights and obligations:⁴³⁹

If the person filing the request is affected in his or her rights or obligations by the real act, the interest that is worthy of protection is based on being affected in rights. The two criteria – "interest that is worthy of protection" and "being affected in rights or obligations" – largely coincide (...). There is no difference to the factual addressee of a ruling having locus standi by implication (Art. 48 APA). 440 (Emphasis added; translated from German original)

Judicial practice with regard to Art. 25a APA, nevertheless, regularly examines whether applicants are affected with a special impact, and thus are different compared to the general public.⁴⁴¹ When examining the "special im-

⁴⁴⁰ BGE 140 II 315 E. 4.3, nuclear power plant Mühleberg.

⁴⁴¹ HÄNER (fn. 368), N 35.

⁴³⁸ BGE 140 II 315 E. 4.2, nuclear power plant Mühleberg.

⁴³⁹ HÄNER (fn. 368), N 18.

pact" with regard to Art. 25a APA the Federal Supreme Court considered "risk exposure" as prerequisite for locus standi:

Anyone who lives within an area that would be particularly affected by a major accident has an interest worthy of protection that suitable protective measures taking into account the nature and magnitude of the risk, are resorted to. Locus standi is thus founded on the risk exposure of residents to a particular source of danger, i.e., the fact that they are exposed to a very large hazard potential and are particularly affected by the possible consequences of a major accident. 442 (Emphasis added; translated from German original)

- In cases of complaints regarding aircraft noise, it is also generally recog-276. nised that a very large group of people can have locus standi without the claim being qualified as actio popularis. An example is the area of Meiringen and vicinity, where large parts of the local residents can acoustically perceive the movements of the FA-18 and Tiger fighter jets - even if they are flying high up - and are more affected by pollutants than those who live at a greater distance from the training space.443
- The case law with regard to *locus standi* concerning exposure to mobile 277. towers and electromagnetic radiation can be referred to here in an analogous manner. In case of complaints against the construction of mobile phone antennas, the Federal Supreme Court affirmed locus standi even with a radiation intensity measuring well below the given thresholds and thus also meeting the need for legal relief of so-called "electrosensitive" persons.444 Even in such cases, the Federal Supreme Court does not qualify complaints against mobile towers as an inadmissible actio popularis.

The same must apply in the present context.

7.5.2 Particular disadvantage of the Applicants because of their risk exposure to heatwaves

The fact that the small sub-group of the Applicants, consisting mainly of 278. women aged 75 or older and of women who will be 75 years old in 2020,

⁴⁴² BGE 140 II 315 E. 4.6, nuclear power plant Mühleberg; this in place of the test of whether "a person is affected more than others and has a special, noteworthy and close relation to the dispute" (translated from German) by the Federal Administrative Court concerning clean air policy in relation to Art. 6 in conjunction with Art. 48 APA, - BVGE 2723 / 2007 of 30 January 2008, E. 6.

443 Judgment of FAC A-101/2011 from 7 Sept. 2011, E. 4.3 und E. 4.4.

⁴⁴⁴ Federal Supreme Court judgment 1A.220/2002 from 10 Feb. 2003, E. 2.4.3; BGE 128 II 168 E. 2.3.

are more at risk than the general population of dying from climate-related heatwaves (para. 275) or suffering physical harm, was demonstrated in detail in s. 4.4 above. Reference is made to these statements.

- Just as "everyone who lives within an area that would be particularly affected by a major accident" (translated from German) has an interest that is worthy of protection in safety measures, or as (translated from German) "anyone who lives in a certain radius of a mobile phone tower (...) is affected more than others by the antenna" the Applicants as members of a group most affected and particularly vulnerable to the consequences of global warming (s. 4.4) have an interest that is worthy of protection in ensuring that global warming is combatted with the necessary measures so that a further increase in the number and intensity of the heatwaves specifically affecting the Applicants is prevented, if possible.
- The fact that through this, *not only* the Applicants but also the whole population would be protected against negative consequences of global warming, does not change anything regarding the particular disadvantage the Applicants have to endure.⁴⁴⁷

7.5.3 Prevailing and practical interest

- Based on the facts demonstrating that the Applicants have been affected in rights and obligations and their particular disadvantage due to their risk exposure, as shown above, the Applicants without doubt have a prevailing and practical interest in the approval of their request as well. Accordingly, the Federal Supreme Court has abstained from a separate test in this regard in BGE 140 II 315. This also corresponds with the substantial parallels between the interest that is worthy of protection and being affected in rights and obligations.⁴⁴⁸
- Nevertheless, the following is to be mentioned with regard to the current and practical interest of the Applicants:

⁴⁴⁶ BGE 128 II 168 E. 2.3.

⁴⁴⁵ BGE 140 II 315 E. 4.6.

 $^{^{447}}$ This applies here as well as to protective measures against accidents at nuclear power plants, BGE 140 II 315. Effective protection is of utmost importance for the residents living within several kilometres (in this context, the "most vulnerable group"). But these measures are also in the interest of the entire population that could be affected in any way by major accidents, even of regions that are affected only slightly.

The *practical* benefit of the Legal Request for the Applicants who are most affected by the consequences of global warming lies namely in preventively protecting their lives (Art. 10 Const. and Art. 2 ECHR) and their health and well being (Art. 8 ECHR). The Applicants aim to prevent at least to the extent possible (i.e. with measures in Switzerland) that the number, duration and intensity of heatwaves, which affect their lives, health, and well being more than any other persons (s. 4.4) increases further. As shown by the additional 1000 deaths in the extraordinary hot summer of 2003 and the 267 deaths in July 2015 (see above s. 5.4.1.1), which primarily affected the population group of women over 75-years old (s. 4.4.2), this interest is not theoretical. The same is true for the many impairments of health and well being of the Applicants 2-4 - Applicant 2, namely, already suffered a heatrelated loss of consciousness, Applicant 3 is strongly impaired in her physical performance during heatwaves, and Applicant 4 is affected by a worsening of her chronic asthma and chronic obstructive pulmonary disease (COPD) (see above para. 18).

As long as the unlawful failures to act and the resulting risks persist, the interest in legal protection is thus *prevailing*.

The Applicants are aware that – inherent to climate change – the commitment of other countries from around the world is *also* necessary for the actual reduction of heatwaves. However, it is *Switzerland's* obligation to protect the Applicants. The Applicants can formally request reduction measures (that ensure a fair contribution to the achievement of the "well below 2°C" target or the 2-degree target) from Switzerland alone. Thus, the current and practical interest of the Applicants exists regardless of the progress of climate policy in other countries.

Apart from that, it is the Confederation's task to coordinate its efforts with other states (see above para. 140).⁴⁴⁹

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The Applicants also expect similar legal steps to be taken in other countries – in addition to the Netherlands, there are already cases in the USA and New Zealand, see VAN RENSSEN SONJA, Courts take on climate change, Nature Climate Change, Vol. 6, July 2016, available at http://www.nature.com/nclimate/journal/v6/n7/full/nclimate3067.html?WT.ec_id=NCLIMATE 201607&spMailingID=51674720&spUserID=ODkwMTM2NjQyMAS2&spJobID=943352215&spR eportId=OTQzMzUyMjE1S0.

7.6 Excursus: Victim status within the meaning of Article 34 ECHR

284. While nothing different from what has been stated in Sections 7.4 and 7.5 also follows regarding the ECHR, and for the reasons mentioned above, the Applicants are also victims of a violation of the rights set forth in the Convention in terms of Art. 34 ECHR. There is a sufficient, direct connection between the Applicants on the one hand and the looming harms caused by insufficient or omitted emission reductions on the other hand. The increase in mortality and the risk of health problems during heatwaves is based on scientific evidence, is therefore foreseeable and severe or irreparable (in the event of death at least) in its effect for those who are impacted.⁴⁵⁰

If the victim status of the Applicants pursuant to Art. 34 ECHR were denied, hardly anyone would have such a status in connection with the immanently diffuse and complex phenomenon of global warming that, nevertheless, indisputably affects human rights significantly (s. 5.8); and acts and failures by states in fighting global warming would hardly ever be affected by convention law. As a result, climate change would remain outside the scope of human rights law – an inacceptable consequence in the light of the ECtHR practice in comparable environmental law cases (see above para. 169).

7.7 Federal public law

286. Requests based on Art. 25a APA must relate to acts based on federal public law (or the omission of acts that should be based on federal public law) – as compared to private law and cantonal law. Federal authorities – and thus the Respondents – always apply federal law. 152

According to Art. 74 para. 1 Const., the Confederation shall legislate on the protection of the population and its natural environment against damage or nuisance. The natural environment of the population also includes the climate. The acts concerning climate change omissions (acts with respect to the reduction target of 25% [to 40%] by 2020 and 50% by 2030 compared to 1990 levels, measures corresponding to the targets, acts in relation to the 20% target) would thus have to be based on *federal public law*.

⁴⁵¹ MÜLLER (fn. 394), p. 348.

⁴⁵² WEBER-DÜRLER (fn. 395), N 17.

⁴⁵⁰ KLEY (fn. 317), 183.

⁴⁵³ MORELL/VALLENDER (fn. 159), Art. 74 N 8.

8. The Legal Requests in detail

8.1 The nature of each Legal Request

- A request to refrain from, discontinue or revoke unlawful acts (Art. 25a para. 1 let. a APA) or to rectify the consequences of unlawful acts (Art. 25a para. 1 let. b APA) is to be made only where the lawful state can still be achieved.
- If administrative *failure* is censured (s. 7.2.2), the request is to implement necessary measures. ⁴⁵⁴ Therefore, the Applicants' main requests 1–4 for legal remedy ask for the issuance of *a ruling regarding the necessary measures possible*. Since the omissions are diverse and affect the rights of Applicants *in their entirety*, a package of measures is requested with which these omissions can be eliminated.
- 290. The Applicants anticipate that the Respondents will not only make a timely ruling in terms of Art. 25a APA but also promptly take the necessary actions that have not been taken hitherto.
- 291. If restitutive legal protection is no longer possible for parts of the legal requests, the request may demand that the illegality of the acts be confirmed (Art. 25a para. 1 let. c APA). If the Respondents do not act at all or not quickly enough to eliminate the unlawful state in due time, they should at least admit the illegality of their omissions.

8.2 Request for legal remedy 1: Correction of insufficient 2020 climate target

8.2.1 Omissions

8.2.1.1 Omission of sufficient information to Parliament

a. **During drafting of the CO₂ Act**

The Respondents 1, 2 and 3 have failed to give information about the consequences for constitutional rights, compatibility with superior law and the consequences for future generations (see Art. 141 para. 2 ParlA) in the dispatch concerning the CO_2 Act, but also at later stages, for example by means of additional dispatches or additional specific proposals of the Federal Council. These issues should have been discussed, like the constitutional

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⁴⁵⁴ KIENER/RÜTSCHE/KUHN (fn. 340), N 433.

⁴⁵⁵ KIENER/RÜTSCHE/KUHN (fn. 340), N 434.

basis for incentive taxes, in the dispatch chapter regarding constitutionality. 456 Namely, it should have been discussed that

- the important constitutional *precautionary principle* requires especially with the systemic issue of climate change (see s. 4.1) - to not take any risks beyond the 2°C target (see s. 5.3 above);
- a GHG reduction of at least 25% (to 40%) by 2020 in Switzerland is necessary to meet the 2°C target and comply with the precautionary principle and to ensure that the target is compatible with fundamental rights and superior law, whereby Respondents have omitted specifically to include information about the State's obligation to protect in terms of Art. 10 Const. and Art. 2 and 8 ECHR (see ss. 5.4, 5.5 and 5.6);
- the 2°C target must be observed also in terms of inter-generational compatibility and the principle of sustainability (see s. 5.2).

b. From the enactment of Art. 3 para. 1 CO₂ Act through to today

The omissions of Respondents 1, 2 and 3 mentioned in paragraph 292 are 293. still on-going, remain the same today: the Respondents continue to not inform Parliament about the fact that by 2020 a GHG reduction of at least 25% (to 40%) in Switzerland would be needed to comply with the state's obligation to protect (Art. 10 Const. as well as Art. 2 and 8 ECHR), to comply with the precautionary principle and to observe the inter-generational compatibility and the sustainability principle.

8.2.1.2 Omission of necessary actions to put in place a sufficient climate target

a. During drafting of the CO₂ Act

By 2020, Switzerland has to reduce its GHG emissions by 20% below 1990 294. levels (Art. 3 para. 1 CO₂ Act). This objective does not correspond with the 2°C target (and certainly not with the "well below 2°C" target), which would require a reduction of at least 25% to 40% (s. 4.2.2). The Organe consultatif sur les changements climatiques (OcCC) stated explicitly in 2012 (translated from German original):

 $^{^{456}}$ Dispatch regarding the Swiss climate policy after 2012 (revision of the CO_2 Act and Federal Popular Initiative "Für ein gesundes Klima" ["For a healthy climate"]), BBI 2009 7433, 7412.

With the CO₂ Act revision, Switzerland has taken a first step in the right direction and shows that a 20 percent reduction target can be reached by 2020. But this first step does not yet fulfil the requirements for a long-term responsible and sustainable path and is not compatible with the global goal of a maximum of 2° C warming. 457

- The fact that the Swiss target is 5 to 20 percentage points too low is largely 295. due to the Respondents 1, 2 and 3. They were the ones who set this low target during the preliminary legislative procedure and then later submitted it to Parliament. There are no indications that all of the Respondents, or at least one of them, tried to integrate a GHG reduction target corresponding with the 2°C target into the CO₂ bill.
- A more stringent target that is compatible with constitutional and interna-296. tional law could have been included in the legislative process by the Federal Council even after the transfer of the bill and submission of the dispatch to parliament: As long as the legislative process is still on-going, the Federal Council can submit supplementary dispatches to Parliament, containing certain changes or other amendments to the original bill (see Art. 160 para. 2 Const.). 458 Also, the Federal Council and members of the Federal Council can submit individual proposals in the deliberations of the parliamentary committees and the chambers. 459 Such proposed amendments often have considerable scope. 460 Also, as long as the legislative procedure is pending, the Federal Council can, based on its right to initiate legislation pursuant to Art. 181 Const., introduce a new bill with a supplementary dispatch that is intended to replace the pending bill.461

However, Respondent 1 did not make any use of these options while the bill was pending in Parliament.

Instead, the omissions with respect to a sufficient climate target took place 297. deliberately while drafting the current CO2 legislation, as is shown in the dispatch (translated from German original):

> If Switzerland wants to fulfil the mission of the Climate Change Convention, emissions must be continuously reduced to such an extent that the per capita emissions at the end of the century are only 1-1.5tonnes CO₂ eq. The **targeted reduction path** which leads to a reduc-

 $^{^{457}}$ OcCC - Organe consultatif sur les changements climatiques (fn. 115), p. 5 (the OcCC is a federal committee of experts).

⁴⁵⁸ Mägli Patrick, Art. 141 N 30, in: Graf Martin/Theler Cornelia/von Wyss Moritz (Hrsg.), Kommentar zum Parlamentsgesetz vom 13. Dezember 2002 [Commentary on the Parliament Act of 13 December 2002], Basel 2014.

459 Mägli (fn. 458), N 30.

⁴⁶⁰ MÄGLI (fn. 458), N 30.

⁴⁶¹ Mägli (fn. 458), N 29.

tion of **minus 20 percent** by 2020 **is, however, not sufficient** to achieve this long-term goal.⁴⁶² (Emphasis added)

In contrast, the popular initiative "For a healthy climate" [regarding an amendment to the Constitution] envisioned a reduction target of 30% by 2020 that would have complied with the 2°C target. Remarkably, precisely this fact was deemed to be a deficiency of the popular initiative by Respondent 1 (translated from German original):

The federal popular initiative, however, has **certain deficiencies**: It **demands a 30 percent reduction of national greenhouse gas emissions**. To achieve this target domestically, assuming the federal popular initiative got approved, Switzerland would have to go without using flexible mechanisms [according to the Kyoto protocol] and thus also the international emissions trading system. 463 (Emphasis added)

To "fix" these "deficiencies", Respondent 1, in cooperation with Respondent 2 and 3, deemed it necessary to draft an indirect counter-proposal [a bill for a revised CO_2 Act instead of the constitutional amendment regarding "a healthy climate"] with the above-mentioned insufficient target of 20% by 2020.

- At least, the bill the Federal Council prepared as the indirect counterproposal included a reduction target of 30% by 2020 as an option, however:
 - only in the event that the EU, as the most important trading partner of Switzerland, and other industrialised countries would also set a comparable target, 464 and
 - only as a secondary motion, i.e. as a "variation" not recommended, in line with the position taken towards the popular initiative.

This does not change anything regarding the omission of necessary actions with a view to an adequate climate target.

Overall, Respondent 1, together with Respondents 2 and 3, failed to work towards a climate target that complies with constitutional and international law while drafting the CO_2 Act (i.e. during the preliminary legislative procedure – see s. 7.2.3) as well as during the parliamentary phase.

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 $^{^{462}}$ Dispatch regarding the Swiss climate policy after 2012 (fn. 456), p. 7465 f.

⁴⁶³ Dispatch regarding the Swiss climate policy after 2012 (fn. 456), p. 7458.

⁴⁶⁴ Dispatch regarding the Swiss climate policy after 2012 (fn. 456), p. 7459 f., 7466, 7480.

b. Since the enactment of Art. 3 Para. 1 CO₂ Act until today

- Respondents 1, 2 and 3 have not taken any steps such as *initiating* a revision of the law since the entry into force of Art. $3 \text{ CO}_2 \text{ Act}$ which is incompatible with the Constitution and the ECHR on 1 January 2013, in order to adjust the GHG target by 2020 that is 5 to 20 percent too low. These omissions are still on-going.
- The continued omission of acts aimed to achieve an adequate climate target significantly hinders the achievement of the 1.5°C target, which was set out in the Paris Agreement of December 2015. But certainly, this omission is significant for the "well below 2°C" target, as well (see para. 60).

8.2.2 Unlawfulness of omissions

8.2.2.1 Unlawfulness of omission of sufficient information to Parliament

- Under Art. 141 ParlA, the Federal Council shall submit its bills to Parliament together with a dispatch. It justifies the bill, comments on the provisions individually, and explains points enumerated in the ParlA. The dispatch serves as basis for the discussion and decision-making in Parliament.⁴⁶⁵
- According to Art. 141 para. 2 ParlA, the dispatch must contain information regarding the legal background of the bill, its compatibility with superior law, etc. 466 The consequences for fundamental rights must also be discussed in the dispatch –in view especially of the protection of persons such as the Applicants. 467 Because of their importance, the explanation on fundamental rights must be given separately in the dispatch and any restrictions on fundamental rights must be explicitly justified. 468 Furthermore, the Federal Council is obliged to examine the compatibility of the bill with international law in the dispatch. 469
- 304. According to Art. 141 para. 2 let. g ParlA, the dispatch must also contain statements on the consequences of the bill for the economy, for society and

⁴⁶⁶ KÜNZLI JÖRG, Art. 181 Const. N 12, in: WALDMANN BERNHARD (Hrsg.), Bundesverfassung [Federal Constitution], Basel 2015.

⁴⁶⁷ BIAGGINI GIOVANNI, Art. 181 Const. N 10, in: EHRENZELLER BERNHARD/SCHINDLER BENJAMIN/SCHWEIZER RAINER J./VALLENDER KLAUS A. (Hrsg.), Die schweizerische Bundesverfassung [The Swiss Constitution], Zurich / St. Gallen 2014.

⁴⁶⁸ Staatspolitische Kommission des Nationalrates [Political Institutions Committee (N)], Par-

⁴⁶⁸ Staatspolitische Kommission des Nationalrates [Political Institutions Committee (N)], Parlamentarische Initiative Parlamentsgesetz (PG) [Parliamentary inititiative Parliament Act (ParlA)], BBI 2001 3467, p. 3593; Mägli (fn. 458), N 18.

⁴⁶⁹ Mägli (fn. 458), N 18.

⁴⁶⁵ BGE 138 I 61 E. 7.3.

for the environment, as well as - in the sense of an inter-generational compatibility assessment – for future generations. 470

305. In the Guidelines on legislative drafting of FOJ, the following has been stated in this regard and concerning the purpose of this provision (translated from German original):

> Moreover, Art. 141 para. 2 let. a ParlA obliges the Federal Council to express its view about the constitutionality of its bill and in particular its effect on fundamental rights in the dispatches sent to the Federal Assembly. This is to avoid that the Federal Council presents an unconstitutional bill to the Federal Assembly (...). It is therefore really important that the constitutionality of bills is carefully examined by the Administration before their being **submitted to the Federal Assembly**. 471 (Emphasis added)

- 306. It appears that the Federal Council has only on one occasion – in the case of the dispatch to a bill about the Federal Act on the Acquisition of Real Estate by Persons Abroad and the popular initiative "against selling off the homeland" in 1981⁴⁷² - proposed a regulation whose constitutionality was strongly guestioned. 473 At least this prompted the Federal Council at that time to assess the constitutionality of the proposed regulation in detail.⁴⁷⁴ Such an assessment is completely missing from the dispatch on the CO₂ Act.
- 307. On the whole, Parliament, as well as the people, must be able to rely on the Federal Council as well as the subordinated federal departments and offices to act lawfully (Art. 5 Const., Art. 3 para. 1 GAOA) and to provide comprehensive information.

Since Respondent 1, together with Respondents 2 and 3, did not do this (see s. 8.2.1.1 above), the relevant omissions in this regard are unlawful.

As long as these unlawful omissions are not ended, illegality remains. 308.

⁴⁷⁰ Mägli (fn. 458), N 24.

⁴⁷¹ FOJ, Gesetzgebungsleitfaden [Guidelines on legislative drafting]; 3rd Ed.2007, www.bj.admin.ch/bj/de/home/staat/legistik/hauptinstrumente.html. ⁴⁷² BBI 1981 III 585.

⁴⁷³ FOJ, Guidelines on legislative drafting (fn. 471), p. 182.

⁴⁷⁴ See BBI 1981 III 585, 639-644.

8.2.2.2 Unlawfulness of the omission of acts aimed at achieving a sufficient climate target

- The omissions of Respondents 1, 2 and 3 are *unlawful* and the Respondents are jointly and severally responsible because of a specific obligation for the authorities to act. This arises from:
 - international law (s. 5.1),
 - the precautionary principle (s. 5.3) and the principle of sustainability in the Federal Constitution (s. 5.2), and
 - the state obligation enshrined in the Constitution and the ECHR to protect the Applicants whose life (Article 10 Const., s. 5.4, and Art. 2
 ECHR, s. 5.5 above), health and physical integrity (Art. 8 ECHR, s. 5.6 above) are threatened with a scientifically proven risk.
- Overall, Respondent 1, together with Respondents 2 and 3, submitted to Parliament a bill that was contradictory to international law, constitutional law and the ECHR, and so far the Respondents have failed to restore the lawful state. The federal authorities should not have submitted to Parliament a bill violating the obligation to protect. Parliament, as well as the people, can and must be able to rely on the Federal Council and the subordinated departments and offices to act lawfully (Art. 5 Const., Art. 3 para. 1 GAOA) and to *draft lawful bills*. Therefore, Respondent 1 would have had to include in the dispatch a detailed explanation of fundamental rights and international law, however, failed to do so (s. 8.2.1.1 above).
- After the Federal Council signed the Paris Agreement (para. 60 above), the on-going failure to work towards a stronger reduction target by 2020 is a fortiori illegal. Based on new scientific findings, the contracting states agreed on holding the increase in the global average temperature to well below 2°C and on pursuing efforts to limit the temperature increase to 1.5°C (Art. 2 para. 1 let. a Paris Agreement). Respondent 1 undermines the object and purpose of this treaty by even failing to work towards a 2020 reduction target that would represent the country's fair share to have a "likely" chance of limiting global warming to 2°C.

This violates in particular Art. 18 of the Vienna Convention on the Law of Treaties, according to which a state is obliged to refrain from acts which would defeat the object and purpose of a treaty when it has signed the treaty subject to ratification (s. 5.1). Article 26 Vienna Convention demands that treaties, and therefore also the objective to prevent dangerous anthropogenic interference with the climate system, are performed in good faith.

As long as Respondents 1, 2 and 3 do not take action to end the omission of necessary GHG reductions using all available means, the unlawful omission continues.

8.2.3 Measures to remedy the omissions

- The Applicants request while respecting the margin of appreciation (s. 5.5.4) of the Respondents as a minimum the implementation of the measures mentioned below to restore the lawful state.
- Measures to end the omission of working towards a sufficient climate target:
 - In terms of the first sentence of Art. 5 GAOA, Respondent 1 shall examine the duties of the Confederation described in Art. 74 para. 1 Const. (protection of the population in its natural environment against damage or nuisance) and their implementation in the climate sector with the current climate target regarding compliance with the objectives in Art. 74 para. 2 Const. (precautionary principle) and Art. 73 Const. (sustainability principle) as well as with the state's obligation to protect under Art. 10 para. 1 Const. and Art. 2 and 8 ECHR. In particular, Respondent 1 shall develop, without delay, in accordance with the first sentence of Art. 5 GAOA a new solution for the period between now and 2020, which corresponds to a well below 2°C target, but at the very least the 2°C target. This new solution requires a greenhouse gas reduction of at least 25% below 1990 levels by 2020.
 - Respondent 1, 2 or 3 shall *initiate*, without delay, through a Federal Council, departmental or office decision (see the overviews provided under para. 239) a preliminary legislative procedure aiming at an emission reduction target compliant with constitutional and international law.
- 315. Measures to end the omission to provide sufficient information:
 - Pursuant to Art. 10 para. 1 GAOA, Respondent 1 shall communicate to Parliament and the general public that in order to comply with Switzerland's obligation to protect and the principles of precaution and sustainability a reduction of greenhouse gas emissions is necessary by 2020 that allows the "well below 2°C" target or at the very least the 2°C target to be met, which requires a domestic GHG reduction of at least 25% by 2020.

As part of the above mentioned preliminary legislative procedure initiated by Respondents 1, 2 or 3 (para. 239), Parliament shall be informed that the newly proposed emissions reduction target clears the way for compliance with the Constitution and the ECHR.

8.3 Request for legal remedy 2: End the omission of mitigation measures necessary to achieve the 25% target

8.3.1 Omissions

The failure to work towards a sufficient climate target, i.e. the failure to achieve an additional GHG reduction of at least 5 to 20 percent (see s. 4.3.3 above), corresponds with Respondent 1, together with Respondents 2, 3 and 4, failing to elaborate the mitigation measures needed to achieve a stronger 5-20 percent GHG emission reduction and to recommend them to Parliament.

Unsurprisingly, and at least partially due to the omissions of the Respondents, there are still core areas today that are not part of climate policy (see s. 4.3.2.6), such as:

- No promotion of electromobility
- No command and control provisions regarding mitigation measures in the building sector
- No CO₂ levy on motor fuels
- No inclusion of the agriculture sector.
- Against the backdrop of the unlawful reduction target laid down in the CO₂ Act, the Respondents also failed to implement the CO₂ Act in the CO₂ Ordinance with mitigation measures that would have allowed the achievement of a higher reduction target.
- The Respondents, in fact, briefly outlined in the dispatch to Parliament how a 30% reduction target by 2020 in Switzerland could be achieved, namely by purely implementing the mitigation measures already suggested to achieve the 20% target. However, these statements are out-of-date considering that with the prescribed mitigation measures, the 20% target will most probably not be achieved (s. 4.3). In addition, Respondent 1, together with Respondents 2 and 3, has advised Parliament against this approach

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⁴⁷⁵ BBI 2009 7433, 7480.

and thus against the implementation of mitigation measures (see para. 298).

8.3.2 Unlawfulness of omission

The unlawfulness of the failure to implement the mitigation measures corresponding to a 25% to 40% target goes hand-in-hand with the unlawfullness of the failure to work towards such a target (see s. 8.2.2.2 above).

8.3.3 Mitigation measures to end the omission

For their protection, the Applicants request that the Respondents shall consider and recommend mitigation measures that would allow the reduction of GHG emissions by at least 25% to 40% by 2020; this as part of the approach described above with regard to the climate target (para. 314).

That there is still plenty of room for additional mitigation measures is demonstrated above in Section 4.3.2.6 ("regulatory gap"). The decision on which measures to propose to Parliament or the Federal Council in order to pursue a constitutional and ECHR-compliant climate target remains at the discretion of the Respondents, as long as these measures are *effective on the whole*.

8.4 Request for legal remedy 3: Correction of the draft climate target by 2030

8.4.1 Omission

According to the draft of the CO_2 Act⁴⁷⁶ prepared for the period 2020 until 2030, Switzerland has to reduce its domestic GHG emissions by 30% below 1990 levels by 2030. A further 20% reduction shall be effected abroad through purchase of emission reduction certificates (Art. 3 draft CO_2 Act). This objective does not correspond with the global 2°C target, and even less with the "well below 2°C" target that requires a GHG reduction of at least 50% domestically (see ss. 4.2.2.2 and 4.2.3). Thus, particularly Re-

 476 Draft CO $_2$ Act, Status 1 September 2016 (remark regarding the English version: URL has changed, now available at

https://www.bafu.admin.ch/bafu/de/home/themen/klima/recht/vernehmlassungen/vernehmlassung-vom-31-08-2016-30-11-2016-ueber-die-zukuenftige-k/unterlagen-fuer-die-vernehmlassung-vom-31-08-2016-30-11-2016-ueb.html).

spondents 2 and 3 are currently failing to include 20% domestic GHG emissions reduction as part of the preliminary legislative procedure.

8.4.2 Unlawfulness of omission

- The described omission is unlawful for the same reasons as the omission to work towards a sufficient reduction target by 2020, see Section 8.2.2.2 above.
- 323. If the omissions are not corrected, i.e. if the lawful state is not restored in due time, the Respondents will again submit a bill to Parliament that conflicts with international law, constitutional law and the ECHR.

8.4.3 Mitigation measures to end the omissions

- Mitigation measures to end the omission to work towards a sufficient climate target:
 - in the course of the preliminary legislative procedure, Respondents shall carry out all actions that allow Switzerland to do its part to meet the "well below 2°C" target or, in any event, at least the 2°C target, which corresponds to a domestic reduction of greenhouse gas emissions of at least 50% below 1990 levels by 2030 (see ss. 4.2.2.2 and 4.2.3);
 - Respondents shall evaluate and recommend all mitigation measures necessary to meet a domestic GHG reduction target of at least 50% by 2030.

8.5 Request for legal remedy 4: Adjustment of insufficient mitigation measures to achieve the 20% target

8.5.1 Omissions

- As shown above (s. 4.3.2), it is unlikely that Switzerland will be able to achieve the 20% target by 2020. This alone shows that the Respondents:
 - are refraining from taking, effectively applying, and enforcing all mitigation measures laid down in the current CO₂ Act, which are necessary to achieve the 20% reduction target or
 - have at least refrained from submitting to Parliament all necessary mitigation measures (see s. 4.3.2.6 on the non-regulated areas).

The omissions as a whole interfere with the fundamental rights of the Applicants, which is why these omissions must be ended by adopting a corresponding package of mitigation measures.

- Striking examples of omissions in the enforcement of the CO_2 Act are described below (others may be apparent to the Respondents, but not to the Applicants).
- In the *building sector* (see s. 4.3.2.3 above regarding the lack of effectiveness of the mitigation measures taken):
 - To date, Respondent 3 has not demanded any reports from the cantons detailing the technical measures to reduce the CO₂ emissions from buildings, although such reporting was supposed to be submitted annually (Art. 9 para. 2 CO₂ Act in conjunction with Art. 16 para. 1 CO₂ Ordinance; see Legal Request 4a). The reports should have had to contain information regarding already implemented and planned mitigation measures and their effectiveness, as well as on "the progression of CO₂ emissions from buildings within the canton" (Art. 16 para.2 CO₂-Ordinance; see Legal Requests 4b). The publications provided by Respondent 4 in response to an application for access to the cantonal reports are in no way altering the fact no such reports exist:
 - "The building programme in 2015"⁴⁷⁷ refers merely to the question of how the global financial assistance has been used,
 - The report "Global contributions to the Cantons under Article 15
 EnA Impact analysis of cantonal promotion programs, results of
 the survey 2013»⁴⁷⁸ refers merely to the effectiveness of the global
 financial assistance activities under Art. 15 Energy Act (EnA) in
 2013.
 - The report "State of energy policy in the Cantons in 2016"⁴⁷⁹ is based on a questionnaire and refers solely to compliance with energy policy (and not new, climate-specific mitigation measures) in the cantons and the MuKEn 2008 that are out-dated and are insufficient with regard to Art. 9 CO₂ Act.

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Conference of Cantonal Energy Directors EnDK, Jahresbericht 2015 des Gebäudeprogramms [Annual Report 2015 of the Building Programme].
 INFRAS, Globalbeiträge an die Kantone nach Art. 15 EnG, Wirkungsanalyse kantonaler

⁴⁷⁸ INFRAS, Globalbeiträge an die Kantone nach Art. 15 EnG, Wirkungsanalyse kantonaler Förderprogramme, Ergebnisse der Erhebung 2013 [Global contributions to the Cantons under Art. 15 EnA, impact analysis of Cantonal promotion programs, results of the survey, 2013], Juli 2014.

⁴⁷⁹ SFOE (fn. 85).

- Only the final report of 1 July 2015 regarding reporting on the status of climate policy in the building sector as of 2012 is available⁴⁸⁰, which according to the statements of the authors commissioned by Respondent 3 "covers the reporting (of the cantons) according to Art. 16 para. 2 CO₂ Ordinance in 2014" (translated from German, insertion added).⁴⁸¹ This report, which is neither based on a current data situation (as of 2012) nor contains specific cantonal details regarding mitigation measures taken and the progression of CO₂ emissions complies with federal law on no account: to assess the progression of CO₂ emissions from buildings within the canton, an annual report of each canton must be made available since implementation of the CO₂ Act on 1 January, 2013.
- It is furthermore apparent that the publication that was issued after the entry into force of the CO₂ Act in July 2013, "Wirkung kantonaler Energiegesetze Analyse der Auswirkungen gemäss Art. 20 EnG, Aktualisierung für das Jahr 2012" [Effect of cantonal energy laws Analysis of the effects in accordance with Art 20 EnG, updating for 2012] does not meet the requirements arising from Art. 9 para. 2 CO₂ Act in conjunction with Art. 16 para. 1 CO₂ Ordinance.

Overall, none of these publications contains a report from the cantons themselves (see also Respondent 4 in the letter of 22 September 2016). Information on measures in terms of Art. 9 CO_2 Act (at least MuKEn 2014) as well as the progression of CO_2 emissions from buildings within the canton cannot be found here.

BO: Letter of the Respondent 4 datet 22 September, 2016 Exhibit 18

- Accordingly, Respondent 3 did not (and could not) verify whether the cantons are about to issue building standards for new and existing ["older" in the non-binding official translation of the Act] buildings based on the "current" state of the art standards, something the cantons are obliged to do according to the second sentence of Art. 9 para. 1 CO₂ Act (see Legal Requests 4c).
- Against this backdrop and in case of failure to achieve the 2015 sectorspecific interim target for the building sector⁴⁸², it is also questionable

⁴⁸¹ INFRAS (fn. 84), p. 4.

⁴⁸⁰ INFRAS (fn. 84).

⁴⁸² The emissions data from 2015 had not been published when this request was filed: FOEN, Emissionen von Treibhausgasen nach revidiertem CO_2 -Gesetz und Kyoto-Protokoll, 2. Verpflichtungsperiode (2013–2020) [Emissions of greenhouse gases under the revised CO_2 Act and the Kyoto Protocol, 2. Commitment period (2013–2020)], 11 July 2016 (remark regarding the English Version: now data of April 2017, URL has changed, now available at

how Respondent 2 will be able to analyse where there is need for improvement at the cantonal level. In this context, Respondent 3 has stated the following with regard to Art. 16 para. 2 CO₂ Ordinance (translated from German original):

The cantons shall provide the Confederation with information regarding all technical measures taken and planned for reducing CO₂ emissions from buildings and their effectiveness per canton (para. 2). The cantons shall present the applied impact model in their reports transparently. The results are 136urisdicti and published in a report by the Confederation. Based, i.a., on this compilation, any deviations from the sector-specific interim target for the building sector are analysed under Article 3 of this Ordinance.⁴⁸³ (Emphasis added)

Accordingly, omissions of Respondent 2 regarding the proposal of additional effective measures in the building sector appear very likely (Art. 3 para. 2 CO₂ Ordinance; see Legal Requests 4e).

328. Area of thermal fuels:

- Respondents 1 and 3 omit to work towards a more rapid increase in the CO₂ levy on thermal fuels (see Legal Request 4f) although it seems clear that the current CO₂ levy is probably not effective enough (cf. para. 74). If the existing CO₂ levy is not effective, the principle of proportionality is violated, which contradicts Art. 5 para. 2 Const. 484
- In the *transport sector* (see s. 4.3.2.4 above regarding the lack of effectiveness of the measures taken, some of which are even designed in a counterproductive way, see para. 76):
 - Respondent 4 does not require measuring the actual CO₂ emissions from passenger cars;⁴⁸⁵ instead, relying on the manufacturer's data calculated under idealised conditions in accordance with the "New European Driving Cycle (NEDC)"⁴⁸⁶, with an average deviation of 38% from the actual

https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfo-daten/emissionen_von_treibhausgasennachrevidiertemco2-gesetzundkyoto-

p.pdf.download.pdf/emissionen_von_treibhausgasennachrevidiertemco2-gesetzundkyoto-p.pdf). 483 BAFU, Erläuternder Bericht zur CO $_2$ -Verordnung [Explanatory report regarding CO $_2$ Ordi-

Energierecht [Commentary on Energy Legislation] 2016. ⁴⁸⁵ Dupuis et al. (fn. 100), p. 9.

nance], November 2012, 13.

484 See Burkhardt Andrea/Bally Jürg/Nägeli Barbara, Art. 29 CO₂ Act N 17, in: Kratz Brigit-Ta/Merker Michael/Tami Renato/Rechsteiner Stefan/Föhse Kathrin (Hrsg.), Kommentar zum

Anpassung des Normverbrauches an die Realität [Motor vehicles. Overdue adjustment to reality of the consumption standard], www.parlament.ch/d/suche/seiten/geschaefte.aspx?gesch_id=20153746.

emissions. 487 That the measurements do not correspond with the actual emissions is also confirmed in a study commissioned by Respondent 3.488 Art. 10 para. 1 CO₂ Act does not foresee, however, that the CO₂ emission is measured under fictitious conditions (see Legal Request 4g). Of course, this questionable measuring method negatively affects the possibility of reaching the interim target for the transport sector (Art. 3 para. 1 let. b CO₂ Ordinance) which is to be achieved alone with CO₂ limits for new passenger cars (Art. 10 CO₂-Act):⁴⁸⁹ The sector-specific interim target for 2015 is no more than 100% of 1990 emissions. However, in 2014, the emissions from the transport sector were still at 108.9%⁴⁹⁰ (see also para. 77 above). And this despite the fact that for the transport sector, only a low interim target was set due to the lack of a CO₂ levy on motor fuels (see Legal Request 4h). 491

- Respondent 1 omits the promotion of electricmobility and considers "a separate strategy and an action plan regarding electromobility unnecessary" (translated from German). 492 However, Respondent 1 does not show how to achieve the interim target for the transport sector for 2015 (Art. 3 para. 1 let. b CO₂ Ordinance) that is based on the overall 20% reduction target (Art. 3 para. 1 CO₂ Act) without mitigation measures in the area of electromobility (see Legal Request 4h).
- Respondents 1 and 3 have not worked towards an increase of the compensation rate for the compensation of CO₂ emissions from motor fuels (Art. 26 para. 2 CO₂ Act, based on which the Federal Council sets the compensation rate at between 5% and 40% based on the extent to which the reduction target specified in Art. 3 para. 1 CO₂ Act has been achieved). This, although it is becoming apparent that the achievement of the overall reduction target (s. 4.3.2.1) as well as the transport sector-specific interim target (s. 4.3.2.4) is at risk which means that the

⁴⁸⁷ Häne Stefan, Bund soll CO₂-Werte besser berechnen [The Confederation should calculate the CO₂ values in a better way], Tagesanzeiger from 20 June 2015.

⁴⁸⁹ Burkhardt Andrea/Bally Jürg/Nägeli Barbara, Art. 3 CO₂ Act N 12, in: Kratz Brigitta/Merker MICHAEL/TAMI RENATO/RECHSTEINER STEFAN/FÖHSE KATHRIN (Hrsg.), Kommentar zum Energierecht

⁴⁸⁸ Dupuis et al. (fn. 100), S. 9.

[[]Commentary on Energy Legislation] 2016.

490 FOEN, Emissionen von Treibhausgasen nach revidiertem CO₂-Gesetz und Kyoto-Protokoll, 2. Verpflichtungsperiode (2013–2020) [Emissions of greenhouse gases under the revised CO₂ Act and the Kyoto Protocol, 2. Commitment period (2013-2020)], 11 July 2016, p. 15 (remark regarding the English Version: now data of April 2017, URL has changed, now available at https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfodaten/emissionen_von_treibhausgasennachrevidiertemco2-gesetzundkyoto-

p.pdf.download.pdf/emissionen_von_treibhausgasennachrevidiertemco2-gesetzundkyotop.pdf).
⁴⁹¹ See Burkhardt/Bally/Nägeli (fn. 489), N 12.

⁴⁹² BFE (fn. 106).

- actual compensation rates of 2%-10% laid down in Art. 89 para. 1 CO₂ Ordinance does not suffice as part of the mitigation measure package (see Legal Request 4h).
- 330. In these sectors, CO_2 legislation contains specific obligations for the Respondents to implement and enforce in order to achieve the 20% reduction target. However, as shown above, this has been partially omitted.
- 331. If, however, the 20% reduction target cannot be achieved despite best possible efforts to implement and enforce the current CO₂ legislation and use of the existing room for manoeuvre, then the Respondents would have failed to work out all necessary mitigation measures while drafting the CO₂ Act and subsequently submitting them to Parliament (see para. 316 and s. 4.3.2.6; see Legal Request 4i). Overall, the Respondents would have wasted the potential for emissions reduction needed to reach the 20% reduction target.

8.5.2 Unlawfulness of omission

- The omissions mentioned are unlawful both in their entirety as well as individually because the authorities have a specific obligation to act (para. 236). The obligation to act arises as is the case with the emission reduction target from international law, from the sustainability and the precautionary principle, from the right to life pursuant to Art. 10 Const. as well as Art. 2 ECHR and the freedom of private and family life under Art. 8 EHCR of the Applicants. Moreover, there is an obligation to act that arises from the CO₂ Act itself, according to which a GHG reduction of 20% below 1990 levels has to be achieved by 2020 (Art. 3 para. 1 CO₂ Act). More specifically, the obligation to act follows from the aforementioned provisions of the CO₂ legislation (see para. 326). Last but not least, this legislation was adopted to protect the population and persons like the Applicants, respectively.
- As regards to the above-mentioned examples of omissions to seriously propose a CO_2 levy on motor fuels ("where necessary" formula) or seriously include the agricultural sector, it shall be pointed out that Respondent 1 may not in light of the precautionary principle and its obligation to protect anticipate possible political difficulties as part of its submissions. At least where it is not entirely certain that the proposed climate target can be achieved just as well without these mitigation measures. Respondent 1 may

not present any bill to Parliament that contradicts constitutional law and the ECHR (s. 8.2.2.1).

8.5.3 Mitigation measures to end the omission

- 334. With Legal Request 4 the Applicants request the Respondents:
 - to apply and enforce the CO₂ legislation in full, as well as,
 - to take all mitigation measures that are needed to fully achieve the 20% domestic target in Switzerland for the period up to 2020.
- The acts listed in Legal Request 4 all serve this goal. For the Applicants, it is important that by 2020 indeed 20% of GHG emissions are reduced compared to 1990 levels through implementing the entire package of mitigation measures. In Section 8.5.1, omissions within this package were identified that need to be ended until it is certain that the climate target can be achieved. Below, the acts requested in Legal Request 4 that are potentially part of the overall package are justified briefly with reference to the relevant provisions of law and ordinance.
- In the *building sector* (see para. 327 above regarding the omissions):
 - Respondent 3 shall obtain without delay the reports of cantons detailing the technical mitigation measures adopted to reduce CO₂ emissions from buildings (Art. 9 para. 2 CO₂ Act in conjunction with Art. 16 para. 1 CO₂ Ordinance; see Legal Requests 4a);
 - Respondent 3 shall verify the content of the cantonal reports (Art. 16 para. 2 CO₂ Ordinance) and ask for improvements if necessary (Legal Request 4b);
 - Respondent 3 shall verify that cantons are actually issuing building standards for new and existing buildings based on the "current state of the art" standards (i.e. minimum MuKEn 2014) (Art. 9 para. 1 sentence 2 CO₂ Act; Legal Request 4c); if this is not occurring, then the respective canton shall be requested to make the improvements or Respondents shall seek substitute performance (Legal Request 4d);⁴⁹³
 - Respondent 2 having determined that the interim building sector target for 2015 was not achieved shall analyse the need for improvement at the cantonal level (BAFU, Erläuternder Bericht zur CO₂-Verordnung [FOEN, Explanatory report regarding the CO₂ Ordinance], November

 $^{^{\}rm 493}$ Regarding the prerequisites for substitute performance Uhlmann/Fleischmann (fn. 72), p. 17 f.

- 2012, p. 13), and propose additional effective mitigation measures to Respondent 1 (Art. 3 para. 2 CO₂ Ordinance; Legal Request 4e).
- 337. In the area of thermal fuels (see para. 328 above regarding the omissions):
 - Respondents 1, 2 and 3 shall take mitigation measures aimed at speedily increasing the CO₂ levy on thermal fuels (see Art. 26 para. 2 CO₂ Act in conjunction with Art. 3 CO₂ Act; Legal Request 4f).
- In the *transport sector* (see para. 329 above regarding the omissions):
 - Respondent 4 shall require the importers of passenger cars to submit data showing actual CO₂ emissions of these cars based on Art. 10 para. 1 CO₂ Act (immediate application of the new method "globally harmonised test cycle WLTC") and not rely on the manufacturer's data calculated under idealised conditions (Legal Request 4g);
 - Respondent 2 shall propose additional mitigation measures given that the 2015 interim target in the transport sector will likely be missed (Art. 3 para. 2 CO₂ Ordinance; Legal Request 4h);
 - Respondent 1 shall take actions to achieve the interim transport sector target according to Art. 3 para. 2 CO₂ Ordinance, such as the promotion of electromobility, or else demonstrate that the interim target can be achieved without such promotion (Legal Request 4h);
 - Respondents 1, 2 and 3 shall take steps to raise the compensation rate for the CO₂ emission compensation from motor fuels (Legal Request 4h).
- In addition, Respondent 1 shall make a comprehensive assessment of the effectiveness of the mitigation measures enacted under the CO₂ Act (Art. 40 para. 1 let. a CO₂ Act) and consider whether additional measures are necessary for the period ending in 2020 (Art. 40 para. 1 let. b CO₂ Act), report the findings of the assessment to Parliament (Art. 40 para. 4 CO₂ Act) and promptly initiate steps to implement the necessary mitigation measures for the period ending in 2020 (Legal Request 4i).

8.6 Alternative request for legal remedy 5: Confirmation of the unlawfulness of omissions

8.6.1 Content of the request

The Applicants alternatively request a confirmation of the illegality. This applies in particular in the event that the Respondents do not act in time or

do not act quickly enough to end the unlawful state. A timely ruling, though, is explicitly requested due to the urgency of the Legal Requests (see procedural motion).

341. In addition, the request is about ascertaining injustice.

8.6.2 Subsidiarity of the declaratory ruling

If restitutive legal protection is not possible, only the illegality of acts can be ascertained (Art 25a para. 1 let. c APA). In this case, legal protection and thus the interest in a declaratory judgment are secondary, but inherent to Art. 25a para. 1 let. c APA.

9. Concluding Remarks

The Applicants are concerned about their life, their health and their well being. Today, they are already greatly affected by periods of intense heat, and they dare not envision a future in which heatwaves become a normal occurrence. They know they are part of a demographic group that is overwhelmingly affected by periods of intense heat, and they, therefore, feel compelled to voice their concerns and those of future elderly women in the context of an association called Senior Women for Climate Protection [called Verein KlimaSeniorinnen].

They want to be heard by a government that has up to now sadly failed to consider their constitutional and human rights; they want to be heard by a government that may have – despite all scientific evidence – yielded to pressure from corporate interests and continues to fail to develop emission reduction targets for 2020 and 2030 and mitigation measures, that do not protect only the interests of business and industry, but also of vulnerable groups like the Applicants; they want to be heard by a government that knows that even the achievement of the 2020 targets may be in danger and yet continues to fail to act in order to protect the Applicants.

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⁴⁹⁴ KIENER/RÜTSCHE/KUHN (fn. 340), N 434.

Concluding, the Applicants ask the Respondents, pursuant to Art. 25*a* APA as well as Art. 6 para. 1 and Art. 13 ECHR, to stop the unlawful omissions detailed above and to adopt, without delay, the mitigation measures requested at the outset.

Zurich, 25 November 2016

RAin Dr. Ursula Brunner

RAin Cordelia C. Bähr, LL.M.

RA Martin Looser

List of exhibits

- 1. List of quotations offered for proof in the footnotes
- 2. Memory Stick with the electronic version of this brief and the texts offered as evidence in the footnotes
- 3. Power of attorney of Applicant 1 dated 17 October, 2016
- 4. Power of attorney of Applicant 2 dated November 19, 2016
- 5. Power of attorney of Applicant 3 dated October 27, 2016
- 6. Power of attorney of Applicant 4 dated October 22, 2016
- 7. Power of attorney of Applicant 5 dated October 27, 2016
- 8. Copy of identity card of Applicant 2
- 9. Copy of identity card of Applicant 3
- 10. Copy of identity card of Applicant 4
- 11. Copy of identity card of Applicant 5
- 12. Medical certificate of Applicant 2 dated November 15, 2016
- 13. Medical certificate of Applicant 3 dated October 19, 2016
- 14. Medical certificate of Applicant 4 dated October 7, 2016
- 15. Medical certificate of Applicant 5 dated October 4, 2016
- 16. Articles of Association of the association "Senior Women for Climate Protection Switzerland" dated 23 August 2016
- 17. Members list of the association "Senior Women for Climate Protection Switzerland" (name, home address and age; as of November 23, 2016)
- 18. Letter of the Respondent 4 dated 22 September, 2016

List of Abbreviations (not included in German original)

A.D.	
AB	Official Bulletin of Parliament (Federal Assembly); Official Bulletin
A : A	(N=Nationalrat/National Council; S=Ständerat/Council of States)
AgricaA	Federal Act of 29 April 1998 on Agriculture; Agriculture Act (LwG); SR 910.1
AJP	Aktuelle juristische Praxis/Pratique Juridique Actuelle (Zurich)
APA	Federal Act of 20 December 1968 on Administrative Procedure (Administrative Procedure Act, VwVG); SR 172.021
ASA	Archiv für Schweizerisches Abgabenrecht (Bern)
BBI	Federal Gazette (official publication of the Bundesrat=Executive)
BGE	Decisions of the Swiss Federal Supreme Court (official publication,
	see for full documentation since 2000:
	http://www.bger.ch/index/juridiction/jurisdiction-inherit-
	template/jurisdiction-recht/jurisdiction-recht-urteile2000.htm)
ВО	Offer of proof
BVG	Federal Administrative Court
BVGE	Published judgments of the Federal Administrative Court
CDR	Carbon Dioxide Removal
Const.	Federal Constitution of the Swiss Confederation of 18 April 1999
	(Federal Constitution, BV); SR 101
CO ₂ Act	Federal Act of 23 December 2011 on the Reduction of CO ₂ Emissions
	(CO ₂ -Gesetz); SR 641.71
CO ₂ Ordi-	Ordinance of 30 November 2012on the Reduction of CO ₂ Emissions,
nance	CO ₂ Ordinance (CO ₂ -Verordnung); SR 641.711
DETEC	Federal Department of the Environment, Transport, Energy and
	Communications (UVEK)
Diss.	Ph. thesis
E.	Consideration (in judgments)
ECHR	European Convention on Human Rights (EMRK), SR 0.101
ECtHR	European Court of Human Rights, Strasbourg
Eds.	Editors
EnA	Energy Act of 26 June 1998 (EnG); SR 730.0
EPA	Federal Act of 7 October 1983 on the Protection of the Environment; Environmental Protection Act (USG); SR 814.01
EU	European Union
FACA	Federal Act of 17 June 2005 on the Federal Administrative Court,
	Federal Administrative Court Act (BGG); SR 173.32
f(f).	And following (pages)
FOAG	Federal Office for Agriculture (BLW)
FOEN	Federal Office for the Environment (BAFU)
FOH	Federal Office for Housing (BWO)
FOJ	Federal Office of Justice
FOPH	Federal Office of Public Health (BAG)
FS0	Federal Statistical Office (BFS)
GAOA	Federal Act of 21 March 1997 on the Organisation of the Government
	and the Administration, Government and Administration Organisation
	Act (RVOG); SR 172.010
GHG/GHGs	Greenhouse gas(es)
GLA	Federal Act of 14 March 1958 on the Liability of the Federal Govern-
	ment, the Members of its Authorities and its Public Officials; Gov-
	ernment Liability Act (VG); SR 170.32
Hrsg.	Editor(s) (Herausgeber)
INDC	Intended Nationally Determined Contributions
N	Note (in commentaries)

NDC	Nationally Determined Contributions
OcCC	Organe consultative sur les changements climatiques [federal committee of experts]
OrgO-DETEC	Organisation Ordinance of 6 December 1999 for the Federal Department of the Environment, Transport, Energy and Communications (OV-UVEK); SR 172.217.1
para(s).	Paragraph(s)
ParlA	Federal Act of 13 December 2002 on the Federal Assembly, Parliament Act (ParlG); SR 171.10
PIC	Political Institutions Committee (SPK)
s(s).	Section(s)
SFOE	Swiss Federal Office for Energy (BFE)
SIA	Schweizerischer Ingenieur- und Architektenverein [Swiss Solciety of Engineers and Architects]
SJZ	Schweizerische Juristen-Zeitung (Zurich)
SR	Classified Compilation of Swiss legislation
UNFCCC	United Nations Framework Convention on Climate Change
٧.	against
ZBI	Zentralblatt für Staats- und Verwaltungsrecht (Zurich)
ZSR	Zeitschrift für Schweizerisches Recht (Bern)

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