

Oslo Principles in EU and Austrian climate change law

Eva Schulev-Steindl and Gerhard Schnedl

Abstract

In 2015, a group of international experts launched a visionary initiative: The Oslo Principles on Global Climate Change. These non-legally binding principles provide guidance for the obligations of states and enterprises in the face of the climate crisis. Dedicated to the 2-degree target and with a strong focus on human rights and preventive actions, the Principles provide a pathway for global climate mitigation efforts. This article examines the extent to which the Oslo Principles have become a legal reality in the EU and Austria and seeks to identify respective implementation gaps.

1 Introduction

The difference between a legal principle and a legal obligation could be illustrated by an angry cat wanting to be a tiger: The principle seeks to guide behaviour and signals strength, but, when it comes to it, lacks the obligation's 'teeth.' Thus, one might wonder why, in March 2015, a group of experts came together to adopt a set of principles on the responsibilities of states and enterprises regarding climate change and published them as 'Oslo Principles on Global Climate Obligations.'¹

Yet the underlying motive may well have been a certain impatience. An impatience that had grown out of the fact that, for years, states and their legislators had remained largely passive in fighting climate change. And this, even though science had long since presented sufficient evidence for global warming and its man-made causes², and the effects of climate change had become increasingly tangible for people. Though climate protection agreements had been concluded at the international

* The authors would like to thank Dr. Dominik Geringer, Dr. Miriam Hofer and Mag. Julia Wallner, Institute of Public Law and Political Science, University of Graz, for their valuable support in preparing this paper.

1 Expert Group on Global Climate Obligations, *Oslo principles on global climate change* (Legal Perspectives for Global Challenges 3, Eleven International Publishing 2015) 65, available at <<https://bit.ly/3Mo7hX0>> accessed 1 December 2021.

2 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* (IPCC 2014); IPCC, *Climate change 2021: The physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, in Press).

level³ and the Paris Agreement⁴ was already in sight, what was largely lacking (and today still is!) were ambitious government measures to tackle climate change.

Against this background, the group of experts, comprising international lawyers, human rights experts, environmental lawyers, etc., after several years of research and discussion, culminating in a meeting in Oslo, Norway, in 2014, adopted the said set of principles.⁵ These Principles, supplemented by legal commentary, deal with the aspect of prevention, i.e., the mitigation of climate change, rather than with adaptation, damages or climate change refugees.⁶ They focus on the issue of obligations for states and enterprises to reduce their GHG emissions⁷ and aim at achieving the 2-degree-target⁸, which soon after the Principles' adoption was stated in the Paris Agreement⁹.

Thus, Oslo Principle (OP) 6 provides that states and enterprises take measures based on the precautionary principle (OP 1) 'to ensure that the global average surface temperature increase never exceeds pre-industrial temperature by more than 2 degrees Celsius'. Thereby the necessary measures shall be guided by the precautionary principle, and further permitted emission levels have to be in line with the two-degree goal. Emission reductions shall be made as far as possible without relevant additional costs (OP 7), new activities causing excessive GHG emissions are to be refrained from principally (OP 8) and available GHG reduction measures entailing costs shall be taken if the costs can be offset through future savings and financial gains (OP 9). The Principles demand observance even if present or future national or international law (reduction) standards should be lower (OP 12).

Regarding states' obligations, the Principles partly distinguish between least developed, developing, and developed countries¹⁰, thus, reflecting the well-known principle of 'common but differentiated responsibility',¹¹ which is also explicitly expressed in OP 14. According to that, all states are responsible for mitigating the

3 E.g., United Nations Framework Convention on Climate Change (adopted 20 January 1994, entered into force 21 March 1994) UNGA Res 48/189; Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997, entered into force 16 February 2005) 2303 UNTS 162.

4 Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) UNTC No 54113.

5 Expert Group on Global Climate Change Obligations (n 1) 1.

6 Ibid 15.

7 Ibid 14.

8 Ibid 5.

9 Paris Agreement, Article 2.

10 E.g., OP 2, OP 9, OP 14, OP 15; Expert Group on Global Climate Change Obligations (n 1) 61.

11 See e.g., UNFCCC, Article 3(1); Lavanya Rajamani, 'The principle of common but differentiated responsibility and the balance of commitments under the climate regime' (2000) 9 RECIEL 120; Rowena Maguire, 'The role of common but differentiated responsibility in the 2020 climate regime: Evolving a new understanding of differential commitments' (2013) 7 CCLR 260.

negative impacts of climate change (see also OP 11); still, the extent of responsibility depends on the respective (economic) capabilities¹² and the historical contributions¹³ to the present level of GHGs. In terms of distributing the permissible GHG emissions between countries, the Oslo Principles adopt a per capita approach (OP 3), which means that each human being is granted the same amount of GHG emissions. This approach is suggested due to justice considerations and practicability reasons and provides a basis for distributing the reduction burden among states.¹⁴ Consequently, a distinction between below- and above-permissible-quantum countries is made (OP 4), indicating whether certain countries stayed below or exceeded their allowed share of GHG emissions and thus might have to take additional measures (OP 13-19). In addition to these reduction obligations, the principles contain various accompanying stipulations, such as that climate-damaging subsidies or credits should be avoided by states (OP 21). Procedural obligations are also of particular concern: States must accept independent jurisdiction to review their compliance with obligations under the Principles (OP 25) and have information obligations to citizens (OP 26).

Finally, enterprises are put under obligation: They should assess their vulnerability to climate change, especially if they operate in the fossil fuel sector, and disclose it to the public (OP 27, 28). Before building major new facilities, enterprises should conduct an environmental impact assessment, including the carbon footprint of the facility (OP 29). Finally, companies in the banking and finance sector are to consider the GHG effects of projects they plan to finance (OP 30).

In 2018, the Oslo Principles were complemented by a separate list of specific principles for enterprises and investors, the Climate Principles for Enterprises. The dynamic development of recent years, including the increasing occurrence of extreme weather events, new findings of the IPCC special reports, as well as legal and societal advancements have soon led to a revision and supplementation of these principles.¹⁵

12 Charlotte Epstein, 'Common but differentiated responsibilities' (*Britannica*, 29 December 2015) <www.britannica.com/topic/common-but-differentiated-responsibilities> accessed 26 February 2022.

13 H. Damon Matthews, 'Quantifying historical carbon and climate debts among nations' (2016) 6 *Nature Climate Change* 60; Lukas H. Meyer and Dominic Roser, 'Climate justice and historical emissions' (2010) 13 *Critical Review of International Social and Political Philosophy* 229.

14 Expert Group on Global Climate Change Obligations (n 1) 19.

15 See the contribution by Jaap Spier in this book; Expert Group on Climate Obligations of Enterprises, *Principles on climate obligations of enterprises* (2nd edn, Eleven International Publishing 2020), available at <<https://climateprinciplesforenterprises.org/>> accessed 10 February 2022; for the first edition see: Expert Group on Climate Obligations of Enterprises, *Principles on climate obligations of enterprises* (Eleven International Publishing 2018), available at <<https://climateprinciplesforenterprises.org/resources/>> accessed 14 February 2022.

Of course, the Oslo Principles do not create new law. They draw on different legal disciplines¹⁶, such as human rights, international, constitutional, environmental and tort law, and reflect an ‘amalgamation’ of various legal sources, as ‘legislation, case law and doctrine’.¹⁷ The aim is to provide a legal reference point and a comprehensive guide for policy and decision makers. Thus, as the authors are aware, the Principles are to a greater or lesser extent also political in nature – and so they point out:

We realise, of course, that, if brought before courts, it cannot be taken for granted that courts will issue judgements urging nation states to curb their emissions significantly. No doubt judges willing to do so will be labelled activists.¹⁸

However, it is even more surprising that shortly after the Oslo Principles were promulgated, Dutch judges explicitly imposed such GHG reduction obligations on a state. In fact, in June 2015, the Netherlands was sentenced in the *Urgenda* case to pursue more ambitious climate targets than the government had intended, namely, to reduce GHG emissions by at least 25% by 2020 (compared to 1990 levels).¹⁹ This ruling was upheld by the Dutch Supreme Court in 2019²⁰ and has become a role model for numerous further so-called climate lawsuits against states in Europe and other parts of the world.²¹ Thus, the Oslo Principles quickly have gained teeth and are leading the way when it comes to climate action commitments by states, and enterprises as well.

In the following, it will be examined how the principles – in their main features – are reflected in the law of the EU and, on behalf of the Member States, in Austrian law. At the same time, this provides an opportunity for an overview of the various areas of climate protection law and policy in the European multi-level governance system.

-
- 16 Satvinda Nagra, ‘The Oslo Principles and climate change displacement: Missed opportunity or misplaced expectations?’ (2017) 11 Carbon & Climate Law Review 120.
- 17 Expert Group on Global Climate Change Obligations (n 1) 21, 22.
- 18 Ibid 45.
- 19 Rechtbank Den Haag, 24.06.2015, C/09/456689/ HA ZA 13-1396, ECLI:NL:RBDHA:2015:7196. English translation available at <<https://bit.ly/3LkwwI9>> accessed 20 February 2022.
- 20 Hoge Raad 20.12.2019, 19/00135, ECLI:NL:HR:2019:2007 (*Urgenda*), English translation available at <<https://bit.ly/3KcQ9RT>> accessed 20 February 2022. See Jaap Spier, ‘The “strongest” climate ruling yet: The Dutch Supreme Court’s *Urgenda* judgment’ (2020) 67 Netherlands International Law Review 320.
- 21 On the worldwide trend of climate lawsuits, see e.g., Jacqueline Peel and Hari M. Osofsky, ‘A rights turn in climate litigation’ (2018) 7 Transnational Environmental Law 47, <[doi:10.1017/S2047102517000292](https://doi.org/10.1017/S2047102517000292)> accessed 12 March 2022; Jacqueline Peel and Jolene Lin, ‘Transnational Climate Litigation: The Contribution of the Global South’ (2019) 113 The American Journal of International Law 679 <<https://doi.org/10.1017/ajil.2019.48>> accessed 12 March 2022; Charles Beauregard et al., ‘Climate justice and rights-based litigation in a post-Paris world’ (2021) 21 Climate Policy 652 <<https://doi.org/10.1080/14693062.2020.1867047>> accessed 12 March 2022; Gerhard Wagner, ‘Klimaschutz durch Gerichte’ (2021) NJW 2256; from the Austrian perspective Eva Schulev-Steindl, ‘Klimaklagen: Ein Trend erreicht Österreich’ (2021) 7(1) ecolex 17.

2 Focus on human rights

In recent years, fundamental and human rights have increasingly been used to underpin states' climate protection obligations.²² The climate crisis, after all, poses a serious threat to the life and health of individuals, and thus to their fundamental rights to life, health, and property or the right to water, food and a clean and healthy environment.²³ Accordingly, numerous 'rights-based'²⁴ climate lawsuits have been filed against states around the world in recent years²⁵ to push for more ambitious climate policies.

The commentary on the Oslo Principles also emphasises the fundamental rights basis of states' climate protection obligations and points out that the above-mentioned human rights, as well as the principle of human dignity that is central to the human rights debate, are enshrined in many international agreements and national constitutions.²⁶ For Europe, the European Convention on Human Rights (ECHR) is particularly relevant in this context: All EU Member States are party to the ECHR and – although the EU itself has not yet acceded to the Convention²⁷ – its fundamental rights form part of Union law as general principles²⁸ and in Austria even have constitutional status.²⁹

The ECHR's central lever for state obligations in the face of climate change are duties to protect, which can be derived from the fundamental right to life and the

22 UNEP, 'Climate change and human rights' (UNEP 2015) <<https://bit.ly/3817vU1>> accessed 28 March 2022; Margaretha Wewerinke-Singh, 'State responsibility for human rights violations associated with climate change' in Sébastien Jodoin, Sébastien Duyck and Alyssa Johl (eds), *Routledge handbook of human rights and climate governance* (Routledge 2018).

23 UNEP (n 22) 7.

24 See Peel and Osofsky (n 21) 37.

25 As of January 2022, the Climate Change Litigation Database by the Sabin Center for Climate Change Law lists a total of 1.847 cases (1.356 US cases and 491 cases in the rest of the world), see <<http://climatecasechart.com/climate-change-litigation/about/>> accessed 5 January 2022.

26 Expert Group on Global Climate Change Obligations (n 1) 22, 23 with reference to Ben Farakas et al., 'Human rights and climate obligations, draft memorandum for the experts' Group on Global Climate Change' (Yale Law School 2013) <<https://bit.ly/37WJGg4>> accessed 28 March 2022.

27 In 2009, the EU committed itself to accede to the ECHR pursuant to Article 6(2) TEU; however, the agreement reached on the basis of first negotiations was declared inconsistent with European law (see Opinion 2/13 of the ECJ of 18 December 2014, ECLI:EU:C:2014:2454); in 2020, accession negotiations were resumed, see <www.coe.int/en/web/portal/eu-accession-echr-questions-and-answers> accessed 24 January 2022.

28 TEU, Article 6(3).

29 *Bundesverfassungsgesetz vom 4. März 1964, mit den Bestimmungen des Bundes-Verfassungsgesetzes in der Fassung von 1929 über Staatsverträge abgeändert und ergänzt werden*, Federal Law Gazette 1964/59, a German version is available at <<https://bit.ly/3ILRM7Z>> accessed 28 March 2022.

protection of private and family life.³⁰ In the *Urgenda* case, the Dutch courts explicitly referred to these fundamental rights and the ‘positive obligations’³¹ of the state arising from them. At the European Court of Human Rights itself, the consequences of climate change have not yet been the subject of case law.

However, the Court has already acknowledged positive obligations in connection with environmental and natural disasters in many cases – even when the state itself has not caused or contributed to the environmental hazard.³² It can be assumed that the impacts of climate change can also trigger positive obligations of states, as they pose risks to the life, health and property of many people as well. The knowledge about these dangers is also sufficiently concrete to establish corresponding duties to act on part of the states.³³ Yet, the success of climate lawsuits based on fundamental

30 ECHR Article 2 and 8; also the fundamental right to property according to Article 1 Protocol 1 to the ECHR could be relevant.

31 Jean-Francois Akandji-Kombe, *Positive obligations under the European Convention on Human Rights. A guide to the implementation of the European Convention of Human Rights* (Council of Europe Human Rights Handbooks Series 7, Council of Europe 2007), available at <<https://rm.coe.int/168007ff4d>> accessed 25 January 2022; Katharina F Braig and Stoyan Panov, ‘The doctrine of positive obligations as a starting point for climate litigation in Strasbourg: The European Court of Human Rights as *Hilfssheriff* in combating climate change?’ (2020) 35 *Journal of Environmental Law and Litigation* 261; Lea Raible, ‘Expanding human rights obligations to facilitate climate justice? A note on shortcomings and risks’ (2021) EJLT <www.ejltalk.org/expanding-human-rights-obligations-to-facilitate-climate-justice-a-note-on-shortcomings-and-risks/> accessed 25 January 2022; Keina Yoshida and Joana Setzer, ‘The trends and challenges of climate litigation and human rights’ (2020) 2 *European Human Rights Law Review* 140.

32 See e.g., *Öneryildiz v Turkey* App. no. 48939/99 (ECtHR 30 November 2004); *Budayeva et al. v Russia* App. no. 15339/02 (ECtHR 20 March 2008); *Kolyadenko et al. v Russia* App. no. 17423/05 (ECtHR 28 February 2012); *Özel et al. v Turkey* App. no. 14350/05 (ECtHR 17 November 2015); for an overview see, Katharina F Braig, ‘Reichweite und Grenzen der umweltrechtlichen Schutzpflichten’ (2017) 39 *NuR* 100, 102ff, Anne-Carlijn Prickartz, ‘Man muss mit den Riemen rudern, die man hat: Umweltschutz als Menschenrecht vor dem Europäischen Gerichtshof für Menschenrechte’ (2015) 5 *NLMR* 386 and Gerhard Schnedl, ‘Grundrechtsschutz gegenüber Umweltbeeinträchtigungen in der Rechtsprechung des Europäischen Gerichtshofs für Menschenrechte. Altes und Neues zu Art. 8 EMRK’ in Werner Hauser and Andreas Thomasser (eds), *Bildung, Wissenschaft, Politik. Instrumente zur Gestaltung der Gesellschaft* (Böhlau Verlag 2014) 647; European Court of Human Rights Press Unit, ‘Environment and the European Convention on Human Rights’ (*ECtHR*, January 2021) <www.echr.coe.int/Documents/FS_Environment_ENG.pdf> accessed 25 January 2022; Ole W Pedersen, ‘The European Convention of Human Rights and climate change – finally!’ (2020) *EJIL* <www.ejltalk.org/the-european-convention-of-human-rights-and-climate-change-finally/> accessed 25 January 2022; Heta Heiskanen, ‘Climate change and the European Court of Human Rights’ in Sébastien Duyck et al. (eds), *Routledge handbook of human rights and climate governance* (Routledge 2018); Therese Karlsson Niska, ‘Climate change litigation and the European Court of Human Rights – A strategic next step?’ (2020) 13 *The Journal of World Energy Law & Business* 331.

33 See Stephan Meyer, ‘Grundrechtsschutz in Sachen Klimawandel?’ (2020) *NJW* 894, 898ff; Miriam Hofer, *Die Staatliche Verantwortung für den Umwelt- und Klimaschutz* (in preparation).

rights under the ECHR is not undisputed.³⁴ On the one hand, it is questioned whether there are already concrete violations of individuals' rights that would make lawsuits based on these violations admissible.³⁵ On the other hand, the ECtHR regularly affords states a great deal of discretion in fulfilling their duties to protect fundamental rights, especially in the environmental sphere,³⁶ and this discretion is likely to be particularly wide in the case of climate change. After all, there is a broad spectrum of measures available for combating the climate crisis and adapting to climate change, many of which entail drastic changes in the lifestyles of large parts of the population and, not least, raise questions of fairness and social equity.

In any case, it remains to be seen how the ECtHR will rule on climate lawsuits: There is already the opportunity since currently three such climate cases are pending before the court.³⁷ One of them comes from Austria and is based on a constitutional complaint against climate-harming tax benefits for air transport that put rail transport at a competitive disadvantage. Due to narrow admissibility requirements, which raise concerns regarding the effectiveness of the legal remedy required by the ECHR, the

34 Critically, e.g., Bernhard Wegener, 'Urgenda – Weltrettung per Gerichtsbeschluss?' (2019) ZUR 3, 10ff.

35 With regard to German jurisprudence see Meyer (n 33) 898ff; in the German *Neubauer* judgment, the German Constitutional Court held that certain provisions of the Federal Climate Protection Act 2019 had an 'advance interference-like effect' on future freedom and therefore it declared them unconstitutional; however, the decision was not based on the ECHR but on national fundamental rights and not positive obligations but freedom rights were at stake; for the decision see: Bundesverfassungsgericht 24 March 2021, 1 BvR 2656/18, 1 BvR 78/20, 1 BvR 96/20, 1 BvR 288/20 (*Neubauer et al. v Germany*), for an English translation see <<https://bit.ly/3JPNqy6>> accessed 29 March 2022; on the judgement see, e.g., Jelena Bäumler, 'Sustainable development made justiciable: The German Constitutional Court's climate ruling on intra- and inter-generational equity' (2021) EJIL <<https://bit.ly/3wKz1Q1>> accessed 29 March 2022; Andreas Buser, 'Die Freiheit der Zukunft' (2021) Verfassungsblog <<https://verfassungsblog.de/die-freiheit-der-zukunft/>> accessed 25 January 2022; Anna-Julia Saiger, 'The Constitution speaks in the future tense. On the constitutional complaints against the Federal Climate Change Act' (2021) Verfassungsblog <<https://verfassungsblog.de/the-constitution-speaks-in-the-future-tense/>> accessed 25 January 2022; Felix Ekardt, 'Climate revolution with weakness' (2021) Verfassungsblog <<https://verfassungsblog.de/climate-revolution-with-weaknesses/>> accessed 25 January 2022.

36 Critical on this matter: Hana Müllerova, 'Environment playing short-handed: Margin of appreciation in environmental jurisprudence of the European Court of Human Rights' (2014) 24 RECIEL 83.

37 *Klimaseniorinnen v Switzerland* App. no. 536000/20 (ECtHR, pending), see: <<https://bit.ly/3HF8DIY>> accessed 25 January 2022; the application is based on the decision of the Swiss Federal Supreme Court, Bundesgericht, 05.05.2020, 1C_37/2019; *Duarte Agostinho and Others v Portugal and Others* App. no. 39371/20 (ECtHR, pending), see: <<https://bit.ly/3sFvobS>> accessed 25 January 2022; the application is directed against 33 European states and was accepted by the ECtHR without prior exhaustion of domestic remedies; *Mex M. v Austria* (ECtHR, pending) at <<http://www.klimaklage.at/>> accessed 25 January 2022.

complaint had been dismissed.³⁸ A fate that so far has often been met by climate lawsuits, however.³⁹

3 The precautionary principle

The precautionary principle, a guiding principle of environmental law, is prominently featured in the Oslo Principles. Principle 1 states that ‘there is clear and convincing evidence’ of man-made climate change and its great risks for humanity, environment and the global economy and thus provides that

GHG emissions [must] be reduced to the extent, and at a pace, necessary to protect against the threats of climate change that can still be avoided; and [that] the level of reductions of GHG emissions required to achieve this, should be based on any credible and realistic worst-case scenario accepted by a substantial number of eminent climate change experts.⁴⁰

Further,

the measures required by the Precautionary Principle should be adopted without regard to the cost, unless the cost is completely disproportionate to the reduction in emissions that will be brought about by expending it.⁴¹

Reading this, it is clear that the Oslo Principles’ understanding of the precautionary principle slightly departs from the traditional understanding of this principle by emphasising well-established scientific knowledge about climate change. This is because the precautionary principle is generally understood to follow a ‘better safe than sorry’ approach⁴²: It enables policymakers to take preventive actions when scientific evidence relating to a risk to the environment or human health is not clear, but inaction could have serious consequences.⁴³ Hence, the Principle aims at striking a fair balance between conflicting interests in situations of scientific uncertainty.

38 VfGH 30 September 2020, G 144-145/2020-13, V 332/2020-13, the decision (in German) is available at <<https://bit.ly/3pzYabD>> accessed 25 January 2022; on this decision: Schulev-Steindl (n 21) 17 and the contribution by Julia Wallner in this book.

39 E.g., Case C-565/19 *P Armando Carvalho and Others v European Parliament and Council of the European Union* (2021) ECLI:EU:C:2021:252 (based on Case T-330/18, ECLI:EU:T:2019:324).

40 OP 1.

41 OP 1.

42 Gary E Marchant and Kenneth L Mossman, *Arbitrary and capricious: The precautionary principle in the European Union courts* (The AEI Press 2005) 1.

43 Didier Bourguignon, ‘The precautionary principle. Definitions, applications and governance’ (European Parliamentary Research Service 2015) <<https://bit.ly/36EtBLE>> accessed 28 March 2022.

Originally stemming from domestic legal orders⁴⁴, the precautionary principle has made its way into various international agreements and documents, a prominent example being the Rio Declaration.⁴⁵ Its Article 15 stipulates that

where there are threats of serious and irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.⁴⁶

Similarly, Article 3 (3) UNFCCC puts the Parties in charge of taking 'precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects'. Although the Paris Agreement does not specifically address the precautionary principle, it does emphasise the importance of comprehensive mitigation measures in order to reduce the need for additional adaptation measures and the resulting costs (see, e.g., Article 7 (4)); thus addressing a central aspect of precaution in the context of climate change.

With the Maastricht treaty, the precautionary principle also became part of EU law:⁴⁷ Article 191 TFEU⁴⁸ stipulates that the Union's environmental policy 'shall be based on the precautionary principle' without, however, defining its scope. A Commission Communication from 2000 clarifies that the principle is to be invoked

where scientific information is insufficient, inconclusive, or uncertain and where there are indications that the possible effects on the environment, or human, animal or plant health may be potentially dangerous and inconsistent with the chosen level of protection.⁴⁹

There is no universal definition of the precautionary principle; the conceptions differ, amongst other things, in the degree of scientific uncertainty leading to intervention by the authorities.⁵⁰

According to Article 4 (2) lit e TFEU, environmental protection is a shared competence of the EU and its Member States. As a cross-cutting issue, it must be considered not only in the areas mentioned in Articles 191-193 TFEU but in all policies and activities of the Union (Article 11 TFEU). The same is true for the precautionary principle, which is, according to the European Court of Justice (ECJ), a fundamental

44 Especially from German law (*Vorsorgeprinzip*), see Bourguignon (n 43) 4; Nicolas de Sadeleer, *Environmental law principles – from political slogans to legal rules* (2nd edn, Oxford University Press 2020) 137.

45 Philippe Sands and Jacqueline Peel, *Principles of international environmental law* (4th edn, Cambridge University Press 2018).

46 'Rio Declaration on Environment and Development' UN Conference on Environment and Development (Rio de Janeiro, 3-14 June 1992) Un Doc. A/CONF.151/26 (Vol 1).

47 Kenisha Garnett and David J Parsons, 'Multi-case review of the application of the precautionary principle in European Union law and case law' (2017) 37 Risk Analysis 502.

48 Consolidated Version of the Treaty on the Functioning of the European Union (2012) OJ C 326/47 (TFEU).

49 Commission, 'Communication from the Commission on the precautionary principle' COM (2000) 1 final, 7.

50 Bourguignon (n 43) 7.

principle of European (environmental) law⁵¹ and the most relevant of the principles enshrined in Article 191 TFEU⁵². Its application is part of risk management,

when scientific uncertainty precludes a full assessment of the risk and when decision makers consider that the chosen level of environmental protection or of human, animal and plant health may be in jeopardy.⁵³

This means that EU institutions might take environmental action despite little scientific evidence for risks and that the principle might justify national restrictions to economic freedom by the Member States in the absence of scientific certainty about particular risks.⁵⁴ On the other hand, the precautionary principle also imposes duties on the EU to prevent such risks to human health and the environment,⁵⁵ and the Member States arguably have the same duties within the scope of application of EU law.⁵⁶ In any case: When applying the precautionary principle, the principle of proportionality must be respected – the potential damage, the possibilities for its mitigation, and the chosen measure, as well as the severity of the intervention, are to be weighed against each other.⁵⁷ Ultimately, this also implies a, rather strict, cost limit: as also anchored in Oslo Principle 1.b, the costs of precautionary measures must not be completely disproportionate to the benefit they bring about.⁵⁸

The precautionary principle is reflected in many EU secondary legislative acts, for example, in the Environmental Impact Assessment (EIA) Directive⁵⁹ and the Industrial Emissions Directive⁶⁰; it further shapes various areas of law, such as nature conservation law or the regulations on hazardous substances and genetically modi-

51 Case C-2/00 *Cartagena Protocol* (2002) ECR I-09713, ECLI:EU:C:2001:664, para 29.

52 Caroline Récsey, 'Principles of European environmental law Article 191 (2) TFEU' in Erika Wagner and Maria Pree (eds), *European environmental law* (vol. 1, Trauner Verlag 2012) 77.

53 Communication from the Commission on the precautionary principle (n 49) 12.

54 Récsey (n 52) 77.

55 De Sadeleer (n 44) 143; Christoph Sobotta, 'Recent applications of the precautionary principle in the jurisprudence of the CJEU – a new yardstick in EU environmental decision making?' (2020) 21 ERA Forum 723-735 <<https://doi.org/10.1007/s12027-020-00628-4>> accessed 14 February 2022; see recently, e.g., Case C-437/19 *État du Grand-duché de Luxembourg v L* (2021) ECLI:EU:C:2021:953, marginal 60; Case C-629/19 *Sappi Austria Produktions-GmbH & Co. KG, Wasserverband 'Region Gratkorn-Gratwein' v Landeshauptmann von Steiermark* (2020) ECLI:EU:C:2020:824, marginal 43.

56 See, e.g., Nicolas De Sadeleer, 'The precautionary principle as a device for greater environmental protection: Lessons from EC courts' (2009) 18 RECIEL 3-10 <<https://doi.org/10.1111/j.1467-9388.2009.00616.x>> accessed 14 February 2022.

57 Astrid Epiney, *Umweltrecht der Europäischen Union* (4th edn, Nomos 2019) 162.

58 See Communication from the Commission on the precautionary principle (n 49) 6.3.4.

59 Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment OJ L 2012/26 (Environmental Impact Assessment Directive).

60 Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) OJ L 2010/334.

fied organisms.⁶¹ EU climate legislation too can be seen as an expression of the precautionary principle. Thus, the recitals of the ‘European Climate Law’⁶², adopted in 2021, state that the EU’s climate action and that of its Member States should be guided by the precautionary principle. The precautionary principle is also part of Austrian law and is a governing principle in numerous areas of environmental law,⁶³ such as chemicals law,⁶⁴ waste law⁶⁵ or air pollution control law regarding industrial installations⁶⁶. Although it is not anchored in the constitution itself, it is nevertheless binding for the legislator via higher-ranking EU law and thus, at least within the scope of application of Union law, also a yardstick for Austrian climate law. Consequently, the Austrian Strategy for Adaptation to Climate Change, for example, mentions the precautionary principle in its objectives, stating that it aims to provide a basis for decision-making regarding future climate impacts and to promote successful implementation.⁶⁷

Coming back to the Oslo Principles’ understanding of the precautionary principle and to fully grasp its meaning in EU law context, it seems essential to understand the difference between the precautionary principle and the preventive principle, also laid down in Article 191 TFEU, even though the ECJ usually mentions both principles in the same breath.⁶⁸ The precautionary principle aims to anticipate and prevent the emergence of environmental risk, whereas the preventive principle aims to eliminate existing hazards and impairments by taking appropriate measures before environmental damage occurs or becomes more serious.⁶⁹ With regard to climate change, both aspects are relevant. After all, climate change and the fact that it is man-made is now scientifically secured knowledge. Thus, the current 6th Assessment Report of the IPCC states: ‘It is unequivocal that human influence has warmed the atmosphere,

61 For more details see in selected areas: De Sadeleer (n 44) 184 (nature conservation), 192 (hazardous substances), 235 (GMOs).

62 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality (‘European Climate Law’) (2021) OJ L 243/1.

63 Gerhard Schnedl, *Umweltrecht* (facultas 2020) 64f.

64 § 1(1) Chemicals Act (*Chemikaliengesetz*), Federal Law Gazette I 1997/53, last change I 2020/140.

65 § 1(1) Waste Management Act (*Abfallwirtschaftsgesetz*), Federal Law Gazette I 2002/102, last change I 2021/200.

66 Pursuant to Section 77(3) of the Industrial Code (*Gewerbeordnung*), Federal Law Gazette 1994/194 (last change I 2020/65), the authority may only approve the operation of a plant if air pollutants are reduced ‘in accordance with the state of the art’, irrespective of any known hazards to life and health, in line with the precautionary principle.

67 Federal Ministry for Sustainability and Tourism, ‘The Austrian strategy for adaptation to climate change, Part 1 – context’ (Federal Ministry for Sustainability and Tourism 2017) 25, 65 <<https://bit.ly/3Ce4ASX>> accessed 25 January 2022.

68 Epiney (n 57) 159.

69 Christian Piska, ‘Article 191 AEUV’ in Thomas Jäger and Karl Stöger (eds), *EUV/AEUV* (Manz 2021) 31.

ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.⁷⁰ Nevertheless, there are still uncertainties, e.g., with regard to the extent and timing of the specific impacts. For example, the intensity and frequency of heavy precipitation and associated flooding, as well as of droughts, will depend on the actual extent of global warming reached in future.⁷¹ This is where the Oslo Principles set in when their authors state ‘that the precautionary principle does *not* come into play in relation to the question *whether* the climate is changing, nor whether this change is human induced.’⁷² Rather, as they note, the difficulty lies in the uncertainty about the remaining time frame and the actions needed to combat climate change. Only in this view the precautionary principle in the strict sense is relevant, while climate change itself is beyond dispute and thus subject to the preventive principle.

Anyway, when it comes to taking concrete measures, states are left with a certain margin of appreciation, according to the ECJ’s jurisprudence.⁷³ Nevertheless, the precautionary principle is a yardstick for assessing governments’ climate protection measures and has already been used in climate lawsuits to claim a lack of ambition in climate policy.⁷⁴ Such an approach can be particularly successful in combination with human rights arguments.⁷⁵ This is shown by the *Urgenda* case, where the Dutch Supreme Court, citing Article 2 and Article 8 ECHR in conjunction with the precautionary principle,⁷⁶ held that the government’s target to reduce GHG emissions by 20% by 2020 (compared to 1990 levels) did not comply with the precautionary principle. Rather, according to the scientific opinion expressed in the IPPC’s 4th Assessment Report and the consensus of the international community, a reduction of between 25 and 45% would be appropriate.⁷⁷ The court held that, in general, it would

70 IPCC, ‘Summary for policymakers (SPM)’ in Valérie Masson-Delmotte et al. (eds), *Climate change 2021: The physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, in Press) A.1., available at <www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf> accessed 25 January 2022.

71 See for the differences between 1.5 degrees and 2 degrees Celsius global warming: IPCC, SPM 2021 (n 70) C.2.

72 Expert Group on Global Climate Change Obligations (n 1) 48 (emphasis in the original).

73 De Sadeleer (n 44) 144; see also, e.g., Sabrina Röttger-Wirtz, ‘Case C-616/17 *Blaise and Others*: The precautionary principle and its role in judicial review – Glyphosate and the regulatory framework for pesticide’ (2020) 27 Maastricht Journal of European and Comparative Law 529–542 <<https://doi.org/10.1177/1023263X20949424>> accessed 10 February 2022.

74 See the cases *Carvalho* (n 39), *Klimaseniorinnen* (n 37) and *Urgenda* (n 20).

75 Felix Ekardt et al., ‘Paris Agreement, precautionary principle and human rights: Zero emissions in two decades?’ (2018) 10(8) Sustainability 7, <<https://doi.org/10.3390/su10082812>> accessed 10 February 2022.

76 *Urgenda* (n 20) para 5.3.2 with reference to *Tătar v Romania* App. no. 67021/01 (ECtHR 20 January 2001) para 120.

77 *Urgenda* (n 20) para 7.2.1., 7.2.7., 7.2.11.

be consistent with the precautionary principle if more far-reaching measures would be taken to reduce GHG emissions, rather than less far-reaching measures.⁷⁸

4 Reduction obligations for states and enterprises

4.1 Reduction obligations under the Oslo Principles

Based on the precautionary principle, the Oslo Principles set out the obligations that states and enterprises have to reduce greenhouse gases (GHG). Thereby, they distinguish between obligations that apply to both states and enterprises (Principles 6-12) and obligations that are binding only to states (Principles 13-26) or only to enterprises (Principles 27-30) – hereinafter, the focus is on state-related obligations. For individuals, the Oslo Principles do not set emission reduction commitments, especially as it is almost impossible to enforce such commitments against individuals.⁷⁹

Principle 6 requires states and enterprises to take measures to ensure that the global average surface temperature increase never exceeds pre-industrial temperature by more than 2 degrees Celsius. The 2-degree target has now also found expression in the Paris Agreement. Article 2 (1) lit a states that the increase in the global average temperature should be kept well below 2 degrees Celsius compared to the pre-industrial level (1880-1920), and efforts should even be made to limit global warming to 1.5 degrees Celsius. In the second half of the twenty-first century, CO₂ neutrality is targeted, meaning that the global net emission of GHG is to be reduced to zero.

The permissible quantum of GHG emissions that a state or enterprise may produce in a specific year must be determined in accordance with the 2-degree target (Principle 6 lit b OP).⁸⁰ In this context, the Oslo Principles do not determine a single state's or the global carbon budget; instead, they limit themselves to outline necessary emissions reductions in abstract terms and highlight means to accomplish them. Nevertheless, a calculation of the global and Austrian carbon budget already exists – it was carried out by Lukas Meyer and Karl Steininger⁸¹ within the Wegener Center for Climate and Global Change at the University of Graz: The scientists referred to the 2-degree target as a starting point and, on this basis, first calculated the global and then the Austrian carbon budget until 2050, when climate neutrality should be the reality. Based on a per capita approach, Austria's carbon budget for the period 2017-

78 Ibid para 7.2.10.

79 Expert Group on Global Climate Change Obligations (n 1) 65.

80 On the importance of the 2-degree limit see Will Frank, 'Anmerkungen zu den "Oslo Principles on Global Climate Change Obligations"' (2015) NVwZ 1499, 1500ff.

81 Lukas Meyer and Karl Steininger, *Das Treibhausgas-Budget für Österreich* (Wegener Center Verlag 2017) <<https://wegcwww.uni-graz.at/publ/wegcreports/2017/WCV-WissBer-Nr72-LMeyerKSteininger-Okt2017.pdf>> accessed 1 December 2021.

2050 amounts to about 1,000 million tons of CO₂ equivalent. In comparison, 1,924 million tons of CO₂ equivalent were emitted in Austria in the years 1990-2015, that is, in only 25 years – if this emission level is maintained – Austria's carbon budget will already be exhausted in 2030.⁸² This, once again, highlights the need for swift and decisive action as envisaged in the Oslo Principles.

Principles 7-12 specify how and by which measures emission reductions are to be achieved. The choice of specific emission reductions is left to the discretion of the states, provided the total permissible quantum is not exceeded. Principle 7 lists examples of relevant measures: Elimination of excessive power consumption, promotion of measures to reduce the need for consuming energy, elimination of broad fossil-fuel subsidies, including tax exemptions for certain industries.

According to the Oslo Principles, states and enterprises are not only required to reduce their emissions as much as possible without significant additional cost (Principle 7), they also have to refrain from starting any activities that entail excessive GHG emissions, such as the erection of coal-fired power plants (Principle 8). Further, the Principles clarify that all countries must implement reduction measures; however, there is an exemption for least developed countries – they only have to take such measures if financial and technical means are provided to them (Principle 9).

Remarkably, the Oslo Principles are conceptualised as the highest-ranking climate protection 'law' – according to Principle 12, compliance with the Principles is required even in case of contradictions with national or international law. However, this higher rank only applies if the respective national or international law is not suitable for achieving the 2-degree target. As mentioned at the beginning, an academic initiative, of course, cannot create binding law – the Oslo Principles themselves do not constitute a legal act and therefore do not take precedence over existing law.

4.2 Reduction obligations in EU Law

In line with the Oslo Principles, the European Union committed itself to the 2-degree target by becoming a party to the Paris Agreement. The fight against climate change is also explicitly one of the objectives of EU environmental policy, set out in Article 191(1) TFEU. The EU's climate policy essentially pursues three strategies: reducing GHG emissions, increasing energy efficiency and increasing the share of renewable energies.⁸³ On the basis of Article 192, Article 114 or Article 194 TFEU, the Europe-

82 Meyer and Steining (n 81) 5.

83 For detailed information on EU climate law and policy, see for example Florian Stangl and Romain Mauger, 'EU climate policy' in Edwin Woerdman, Martha Roggenkamp and Marijn Holwerda (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021) ch 2; Stuart Bell et al., *Environmental law* (9th edn, Oxford University Press 2017) 528, 548; Sanja Bogojevic, 'Climate change law and policy in the European Union' in Cinnamon P Carlarne et

an Parliament and the Council are also empowered to adopt concrete climate protection measures. The EU has made use of this option and adopted a wide range of secondary legislation on climate protection. Before presenting the EU's concrete climate protection measures, their climate targets, in particular their targets for reducing GHG emissions, should be outlined.

4.2.1 EU climate targets

The European Union's climate targets have a long tradition. In contrast to the Paris Agreement with its 2-degree target, the EU imposed concrete reduction targets on its own very early on. First, there was the target of reducing GHG emissions by 8% up to 2012 compared to 1990 levels by 2012, as set out in the 6th Environmental Action Programme of July 2002⁸⁴ and then in the Kyoto Protocol.⁸⁵ According to calculations by the European Environment Agency, total emissions in the former 15 EU Member States fell by an average of 11.7% compared with 1990 levels during the period from 2008 to 2012. The EU thus clearly exceeded its eight-percent target.⁸⁶

In March 2007, the European Council agreed to set legally binding targets for the reduction of GHG emissions for the period up to 2020.⁸⁷ It was decided to reduce GHG emissions by 20% compared to 1990 levels. Furthermore, it was determined to increase energy efficiency by 20% and to increase the share of renewable energies in the EU's total energy consumption to 20%. In early 2008, the Commission finally developed a blueprint for achieving these so-called 20-20-20 targets.⁸⁸ The EU has significantly exceeded its target of reducing GHG emissions by 20% up to 2020 compared to 1990 levels. In 2020, EU-27 GHG emissions, including international aviation, were 31% below 1990 levels.⁸⁹

al. (eds), *The Oxford handbook of international climate change law* (Oxford University Press 2016) 670; David Langlet and Said Mahmoudi, *EU environmental law and policy* (Oxford University Press 2016) 253.

84 Decision 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action Programme (2002) OJ L 242/1, Article 5.

85 Council Decision 2002/358/EC of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder (2002) OJ L 130/1.

86 Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, 'First Commitment Period (2008 to 2012)' <<https://bit.ly/3IRjeRM>> accessed 29 March 2022.

87 This was based on the Commission Communication, 'Limiting global climate change to 2 degrees Celsius – the way ahead for 2020 and beyond' COM (2007) 2 final.

88 Commission Communication, '20 20 by 2020. Europe's climate change opportunity' COM (2008) 30 final.

89 Commission's report, 'Speeding up European climate action towards a green, fair and prosperous future. EU Climate Action Progress Report 2021' COM (2021) 950 final.

In October 2014, the European Council adopted the Framework for Climate and Energy Policy up to 2030.⁹⁰ In this process, the 20-20-20 targets were increased. Thus, GHG emissions are to be reduced by at least 40% (compared to 1990 levels) by 2030. Further targets by 2030 are to increase the share of renewable energies to at least 27% and to increase energy efficiency by at least 27%. The new climate targets were often considered too unambitious, and the European Parliament also repeatedly called for more ambitious targets.⁹¹ In 2018, the targets for renewable energies and energy efficiency were then raised to 32% and 32.5%, respectively, through the recast of the Renewable Energy Directive⁹² and an amendment to the Energy Efficiency Directive.⁹³ Finally, the Governance Regulation,⁹⁴ adopted at the end of 2018, aims to ensure that the Union's 2030 energy and climate targets and long-term commitments are met in line with the Paris Agreement. The central element of the regulation is the development of National Energy and Climate Plans (NECPs) by the Member States.

In 2019, several important milestones in EU climate policy were set. First, in November, the European Parliament declared a climate and environmental emergency, reaffirming the urgency of tackling climate change.⁹⁵ In December, the Commission presented the European Green Deal⁹⁶ aimed at launching the transition to a green

90 This was based on the Commission Communication, 'A policy framework for climate and energy in the period from 2020 to 2030' COM (2014) 15 final.

91 For example, Judith Fitz and Daniel Ennöckl, 'Klimaschutzrecht' in Daniel Ennöckl, Nicolas Raschauer and Wolfgang Wessely (eds), *Handbuch Umweltrecht* (3rd edn, facultas 2019) 757, 771.

92 Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast) (2018) OJ L 328/82 (RED II).

93 Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency (2018) OJ L 328/210.

94 Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action (2018) OJ L 328/1; for more details see for example Sabine Schlacke and Michele Knodt, 'Das Governance-System für die Europäische Energieunion und für den Klimaschutz' (2019) ZUR 404; Hans-Georg Dederer, 'Die Governance-Verordnung der Union. Klimapolitische Steuerung der EU-Mitgliedstaaten in Richtung Nachhaltigkeit' (2021) NR 25.

95 European Parliament Resolution of 28 November 2019 on the climate and environment emergency, 2019/2930(RSP).

96 Commission's communication, 'The European Green Deal' COM (2019) 640 final; for more details see for example Isabel Staudinger, 'The European Green Deal – what is in a name?' in Eva Schulev-Steindl, Oliver C Ruppel and Ferdinand Kerschner (eds), *Climate law – current opportunities and challenges. Essays from the official opening of ClimLaw: Graz* (Eleven International Publishing 2021) 115; Sarah Wolf et al., 'The European Green Deal – more than climate neutrality' (2021) 2 Intereconomics 99; Alicja Sikora, 'European Green Deal – legal and financial challenges of the climate change' (2021) 21 ERA Forum 681; Marco Siddi, 'The European Green Deal: Assessing its current state and future implementation' (2020) FIIA Working Paper 114; Ruven C Fleming and Romain Mauger, 'Green and just? An update on the "European Green Deal"' (2021) 18 Journal for European Environmental & Planning Law

economy. In addition, climate protection is to be strengthened at the European level and CO₂ neutrality to be achieved by 2050. Specifically, net emissions of GHG are to be reduced to zero by 2050. The Green Deal furthermore provides for a tightening of the EU's climate targets for 2030. In December 2020, the European Council finally agreed to reduce GHG emissions by at least 55% by 2030 compared to 1990 levels.⁹⁷

The new political climate targets outlined previously were made legally binding at the end of June 2021 with the 'European Climate Law'.⁹⁸ This European Climate Law – in legal terms it is a regulation within the meaning of Article 288 (2) TFEU – raises the EU's GHG reduction target from 40% to 55% by 2030 and commits the EU to climate neutrality by 2050. The Law also includes a process for setting a climate target for 2040. These binding climate targets – they are addressed to the institutions of the Union and the Member States – are intended to achieve the 2-degree target set out in the Oslo Principles and in the Paris Agreement. The Commission presented concrete proposals for implementing the EU's 2030 climate target in July 2021 with the climate legislative package 'Fit for 55'.⁹⁹

4.2.2 EU climate protection measures

Based on the EU climate strategy and the climate targets outlined above, the EU's climate protection measures can be divided into the already familiar three areas:

164-180. The Green Deal builds on the Commission's Communication, 'A clean planet for all. A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy' COM (2018) 773 final.

97 The Council based this on the Commission's communication, 'Stepping up Europe's 2030 climate ambition. Investing in a climate-neutral future for the benefit of our people' COM (2020) 562 final.

98 European climate law (n 62); for more details see for example Tobias Schuelken and Benedikt Sichla, 'Das Europäische Klimagesetz – Inhalt, Rechtsfragen und Ausblick' (2021) UPR 1; Florian Stangl, 'Zur Genese des Europäischen Klimagesetzes. Wegbereiter für die Klimaneutralität 2050' (2021) NR 14; Sabine Schlacke, Miriam Köster and Eva-Maria Thierjung, 'Das „Europäische Klimagesetz“ und seine Konsequenzen' (2021) EuZW 620; Sabine Schlacke et al., 'Implementing the EU climate law via the 'Fit for 55' package' (2022) 1 Oxford Open Energy 1; Giorgio Monti, 'The European climate law: Making the social market economy fit for 55?' (2021) 58(5) Common Market Law Review 1321; Beatriz Pérez de las Heras, 'European climate law(s): Assessing the legal path to climate neutrality' (2021) 21(2) Romanian Journal of European Affairs 19; Carlos Abreu Amorim and Ana Cardoso, 'European climate law – real changes or postponed future?' (2021) 7(1) UNIO – EU Law Journal 138.

99 Commission's communication, 'Fit for 55: Delivering the EU's 2030 climate target on the way to climate neutrality' COM (2021) 550 final; see for example Walter Frenz, 'EU-Klimapaket Fit for 55' (2021) UPR 338; Walter Frenz, 'Nachhaltige Wirtschaftswende nach dem EU-Klimapaket "Fit for 55"' (2021) EWS 241; Schlacke et al. (n 98); Monti (n 98).

Reducing GHG emissions, increasing the share of renewable energies and increasing energy efficiency.¹⁰⁰ They will be briefly described in the following.

4.2.2.1 Legal framework for reducing GHG emissions

The main instrument for reducing GHG emissions in the European Union is the EU Emissions Trading System (ETS), which became operational in 2005.¹⁰¹ The EU ETS, the flagship of European climate policy, created the world's first and largest carbon market. The system covers around 40% of GHG emissions in the EU.¹⁰² The Emissions Trading System works according to the principle of 'cap and trade'.¹⁰³ First, an upper limit is set for the emission of certain GHGs ('cap'). In order to be allowed to emit these GHGs, the installations obliged to participate in the Emissions Trading System must have the corresponding certificates, which they have previously received free of charge or for a fee (e.g., through auctioning). Emission certificates can be freely traded on the market ('trade'). The formation of the price is determined by the market. The higher the price, the greater the financial incentive to reduce GHG emissions. But it is precisely this circumstance that has been the major problem of the European Emissions Trading System in recent years. Due to a massive oversupply of certificates on the market, the price for one ton of CO₂ fell to below 3 euros. This, of course, created little or no incentive to reduce emissions, so that for a long time, the EU ETS was unable to achieve the desired economic effect. Thus, in order to increase the price, the EU removed emission certificates from the market (so-called backloading).¹⁰⁴ In 2018, the certificates withdrawn from the market were transferred to the Market Stability Reserve (MSR), which has been set up in the meantime¹⁰⁵ and allows the number of certificates available each year to be reduced or increased as required.¹⁰⁶ This measure was effective: The price for one ton of CO₂

100 See for example Alina Lengauer, 'Die Energiepolitik der Europäischen Union im Angesicht des Klimawandels. Ein Überblick über Kompetenzen, Maßnahmen und Problemfelder' (2020) ZfRV 196, 198; Fitz and Ennöckl (n 91) 771.

101 See for example Edwin Woerdman, 'EU emissions trading system' in Edwin Woerdman, Martha Roggenkamp and Marijn Holwerda (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021) ch 3.

102 European Commission, 'EU emissions trading system (EU ETS)' <https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en> accessed 1 December 2021.

103 See for example Schnedl (n 63) 136.

104 Commission Regulation (EU) No 176/2014 of 25 February 2014 amending Regulation (EU) No 1031/2010 in particular to determine the volumes of greenhouse gas emission allowances to be auctioned in 2013-20 (2014) OJ L 56/11.

105 Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme (2015) OJ L 264/1.

106 Poland's lawsuit against the Market Stability Reserve was dismissed by the ECJ; Case C-5/16 *Poland v Parliament and Council* (2018) ECLI:EU:C:2018:483.

has risen continuously in recent years and is currently (15 December 2021) over 80 euros.¹⁰⁷

The legal framework of the EU ETS is set by the Emissions Trading Directive 2003/87/EC.¹⁰⁸ The system applies to the energy and industry sectors (around 11,000 – mostly particularly energy-intensive – installations are currently subject to emissions trading throughout the EU¹⁰⁹) and, since 2012, also to aviation¹¹⁰ (only flights between airports in the European Union are covered). The EU ETS is now in its fourth trading period (2021 - 2030).¹¹¹ It supports the EU's 2030 emissions reduction target (-40% compared to 1990 levels). To reach this target, sectors covered by the EU ETS will have to reduce their emissions by 43% compared to 2005 levels. In order to increase the pace of emission reductions, the total number of emission certificates will be reduced by 2.2% per year from 2021. Auctioning remains the central allocation mechanism. However, sectors with a significant risk of migration to countries outside the EU ('carbon leakage') will continue to receive limited free allowances. In view of the legally binding reduction target of 55% for 2030 set out in the European Climate Law 2021, a further adjustment of the EU ETS is necessary. The EU has already made concrete proposals in this regard within the framework of the 'Fit for 55' legislative package.¹¹² For example, the EU ETS is to be expanded to include emissions from shipping. In addition, the Commission is striving for a separate new emissions trading system for road transport and the building sector, that is, for fuels and combustibles in these sectors.

For sectors not included in the present EU ETS, such as transport, buildings, agriculture, waste or small industrial installations (the so-called non-ETS sectors), the emission reduction targets of the EU are distributed among the Member States.¹¹³ As

107 <<https://www.wallstreet-online.de/rohstoffe/kohlendioxid-preis>> accessed 16 December 2021.

108 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community (2003) OJ L 275/32.

109 Daniel Ennöckl, 'Wie kann das Recht das Klima schützen?' (2020) ÖJZ 302, 304.

110 Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community (2009) OJ L 8/3.

111 The basis for this is the Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814 (2018) OJ L 76/3.

112 Commission, 'Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union, Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and Regulation (EU) 2015/757' COM(2021) 551 final.

113 See for example Lorenzo Squintani, 'Regulation of emissions from non-ETS sectors' in Edwin Woerdman, Martha Roggenkamp and Marijn Holwerda (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021) ch 4.

a first step, the Effort Sharing Decision of 2009¹¹⁴ set national emission reduction targets for 2020 compared to 2005. Austria had to reduce its GHG emissions in the non-ETS sectors by 16%.¹¹⁵ The Effort Sharing Regulation 2018¹¹⁶ (also called Climate Action Regulation), now in force, sets individually binding targets for the Member States up to 2030. In the EU as a whole, a 30% reduction of GHG emissions in the non-ETS sectors is to be achieved. The targets of the Member States range from 0% (Bulgaria) to 40% (Sweden). Austria's target for the reduction of GHG emissions in the non-ETS sectors lies at 36%.¹¹⁷ In view of the legally binding reduction target of 55% for 2030 set out in the European Climate Law 2021, an adjustment of the non-ETS sector will be necessary, too. Thus, there is already a concrete proposal for a 40% reduction within the framework of the 'Fit for 55' legislative package.¹¹⁸

In line with the Paris Agreement, the European Union has determined that all relevant economic sectors must contribute to the achievement of climate targets, including the sector 'Land Use, Land-Use Change and Forestry' (LULUCF). LULUCF exists as a separate sector alongside the two other major climate protection instruments of EU climate policy, namely the Emissions Trading Directive for industry and energy production and the Effort Sharing Regulation for the transport, buildings, agricultural and waste sectors. The legal framework for land use is found in the LULUCF Regulation (EU) 2018/841.¹¹⁹ The regulation provides a binding obligation for each Member State to ensure that GHG emissions from land use, land use change or forestry that occur between 2021 and 2030 are offset by at least an equivalent removal of CO₂ from the atmosphere (so-called GHG sinks) ('no debit' rule). As a result, this sector is therefore emission-free. Land use and forestry involve the use of soils, trees, plants, biomass, and wood, with forests and plant populations being the most

114 Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 (2009) OJ L 140/136.

115 Annex II to the EU Effort Sharing Decision No 406/2009/EC.

116 Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (2018) OJ L 156/26.

117 Annex I to the EU Effort Sharing Regulation (EU) 2018/842.

118 Commission, 'Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement' COM (2021) 555 final.

119 Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework (2018) OJ L 156/1.

important CO₂ sinks. In particular, forests in the EU absorb the equivalent of almost 10% of total EU greenhouse gas emissions each year.¹²⁰

4.2.2.2 Legal framework for the expansion of renewable energies and the increase of energy efficiency

Three quarters of GHG emissions in the EU are caused by production and consumption of energy.¹²¹ Saving energy through energy efficiency measures and the massive promotion of renewable energies is therefore central to achieving the climate targets for 2030 and climate neutrality by 2050 – objectives that are also those of the Union's energy policy under Article 194 (1) TFEU.

The legal framework for the expansion of renewable energies across all sectors of the EU economy (electricity, heating and cooling as well as transport) is the RED II¹²², which replaced the previous Directive 2009/28/EC (RED I) at the end of 2018. The directive is part of the winter package 'Clean Energy for all Europeans'¹²³, which came into force in 2018 and 2019.¹²⁴ Building on the 20% target for 2020, it set a new binding target for renewables in the EU for 2030 of at least 32%, with a clause for a possible upward revision by 2023. In contrast to the previous RED I, Member States are no longer assigned separate national reduction targets. Instead, Member States independently determine their national contributions to the overall binding Union target within the framework of their National Energy and Climate Plans, which they must prepare on the basis of the Governance Regulation (EU)

120 European Commission, 'Land use and forestry regulation for 2021-2030' <https://ec.europa.eu/clima/eu-action/forests-and-agriculture/land-use-and-forestry-regulation-2021-2030_en> accessed 1 December 2021.

121 European Council, Council of the European Union, 'Latest EU policy actions on climate change' <www.consilium.europa.eu/en/policies/climate-change/eu-climate-action/> accessed 1 December 2021.

122 Directive (EU) 2018/2001 (n 92).

123 Commission's communication, 'Energy for all Europeans' COM (2016) 860 final; for more details see for example Fabian Pause, "'Saubere Energie für alle Europäer" – Was bringt das Legislativpaket der EU?' (2019) ZUR 387; Alexander Proelß, 'Europäische Energieunion und internationaler Klimaschutz: Konkurrenz oder Konvergenz?' (2019) EurUP 72, 78ff; Lanka Horstink, Julia M Wittmayer and Kiat Ng, 'Pluralising the European energy landscape: Collective renewable energy prosumers and the EU's clean energy vision' (2021) 153 Energy Policy <<https://doi.org/10.1016/j.enpol.2021.112262>> accessed 14 February 2022; Joshua Roberts, 'Power to the people? Implications of the clean energy package for the role of community ownership in Europe's energy transition' (2020) 29 RECIEL 232.

124 European Commission, 'Clean energy for all Europeans package' <<https://bit.ly/3IHIdHe>> accessed 29 March 2022.

2018/1999.¹²⁵ As part of the climate legislative package ‘Fit for 55’, the EU presented a proposal to amend the Renewable Energies Directive in July 2021.¹²⁶ The Commission wants to increase the expansion of renewable energies to 40% by 2030.

The European Union’s most important piece of legislation to increase energy efficiency is the Energy Efficiency Directive 2012/27/EU.¹²⁷ While the EU originally committed to reducing energy efficiency in energy consumption by 20% up to 2020, the amending Directive (EU) 2018/2002¹²⁸, which is also part of the winter package ‘Clean Energy for all Europeans’, aims to reduce primary energy consumption in the Union by 32.5% up to 2030. There is a possibility to revise this target upwards for 2023. Similar to renewable energies, the Member States have to determine their national contributions to achieving the overall European target for energy efficiency. This is done through their NECPs, which are integrated into the monitoring process of the Governance Regulation (EU) 2018/1999¹²⁹. In July 2021, the EU proposed a recast of the Energy Efficiency Directive with the climate legislation package ‘Fit for 55’.¹³⁰ The energy efficiency target is to be increased to 36% to 37%.

The Energy Efficiency Directive is flanked by a number of other energy efficiency measures, for example, in the areas of buildings¹³¹, products¹³² and road transport¹³³. In July 2020, the Commission presented an EU Strategy for Energy System Integra-

125 For further information, see for example Olivia Woolley, ‘Renewable energy consumption’ in Edwin Woerdman, Martha Roggenkamp and Marijn Holwerda (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021) ch 5.

126 Commission, ‘Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652’ COM (2021) 557 final <https://ec.europa.eu/info/news/commission-presents-renewable-energy-directive-revision-2021-jul-14_en> accessed 1 December 2021.

127 Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency (2012) OJ L 315/1.

128 Directive (EU) 2018/2002 (n 93).

129 For further information, see for example Hans Vedder, ‘Energy efficiency’ in Edwin Woerdman, Martha Roggenkamp and Marijn Holwerda (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021) ch 6.

130 Commission, ‘Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast)’ COM (2021) 558 final.

131 Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (2010) OJ L 153/13. Under the second part of the ‘Fit for 55’ package, the Commission has recently presented a proposal for a new buildings directive, see ‘Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings (recast)’ COM (2021) 802 final.

132 Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (2009) OJ L 285/10.

133 Directive 2009/33/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of clean and energy-efficient road transport vehicles (2009) OJ L 120/5.

tion as a framework for a European energy transition.¹³⁴ Energy system integration, i.e., the coordinated planning and operation of the energy system ‘as a whole’, across multiple energy carriers, infrastructures, and consumption sectors, is considered necessary to achieve the European Green Deal target of climate neutrality by 2050. In September 2021, the Commission published (non-binding) guidelines on energy efficiency,¹³⁵ the focus being on the principle of ‘Energy Efficiency First (EE1st)’.

4.2.3 EU climate financing

The Oslo Principles specify in Principle 9 that developed and developing countries must provide financial and technical resources to enable least developed countries for taking action on greenhouse gas emissions reductions. The European Union meets this commitment to financial support, also enshrined in Article 9 of the Paris Agreement. For example, the EU has pledged at least 14 billion euros (or an average of 2 billion euros per year) to support climate protection measures in developing countries over the period 2014–2020. Thus, in 2019, the European Commission supported developing countries with 2.5 billion euros. In addition, the European Investment Bank, being the largest contributor to public climate finance, has earmarked 3.1 billion euros for climate protection measures in developing countries in 2019. Among other things, the bank finances energy efficiency and renewable energy projects in Africa and other regions. Overall, the European Union, its Member States and the European Investment Bank are the largest donor contributor of public climate finance in the world. The support for developing countries amounted to 23.2 billion euros in 2019.¹³⁶ Nevertheless, the EU should increase its funding for climate protection measures abroad in the near future. At the UN Climate Change Conference in Copenhagen in 2009, the industrialised countries promised to mobilise a total of 100 billion US dollars per year in climate financing (climate protection investments in developing countries) by 2020. However, according to recent reports, this financial promise has not been kept.¹³⁷

In addition to providing financial assistance to developing countries in the area of climate protection, the EU goes one step further in climate financing: it strives for

134 Commission’s communication ‘Powering a climate-neutral economy: An EU Strategy for Energy System Integration’ COM (2020) 299 final.

135 Commission Recommendation (EU) 2021/1749 of 28 September 2021 on Energy Efficiency First: From principles to practice – Guidelines and examples for its implementation in decision-making in the energy sector and beyond (2021) OJ L 350/9.

136 European Commission, ‘International climate finance’ <https://ec.europa.eu/clima/eu-action/international-action-climate-change/international-climate-finance_en> accessed 1 December 2021.

137 Klimareporter, ‘Reiche Länder haben 100-Milliarden-Versprechen gebrochen’ <<https://bit.ly/3IOaR9B>> accessed 29 March 2022.

sustainable financing.¹³⁸ In this context, the EU has launched an ambitious Action Plan on Financing Sustainable Growth,¹³⁹ comprising measures such as: standards and labels for environmentally friendly financial products, promotion of investments in sustainable projects, development of sustainability benchmarks. The EU also supports developing countries in improving their conditions for mobilising low-carbon finance.¹⁴⁰ In October 2019, the EU, together with the competent authorities of Argentina, Canada, Chile, China, India, Kenya and Morocco, launched the International Platform on Sustainable Finance,¹⁴¹ aimed at improving the mobilisation of private capital for environmentally sustainable investments.¹⁴²

4.3 Reduction obligations in Austrian law

As a Member State of the European Union and a signatory to the Paris Agreement, Austria has incorporated various measures to reduce GHG emissions into its legal system. The aim of Austria's climate protection measures is to limit global warming compared to pre-industrial levels to well below 2 degrees Celsius, if possible to below 1.5 degrees Celsius. Austria's climate policy is thus in line with Principle 6 of the Oslo Principles. With the Climate and Energy Strategy '#mission2030'¹⁴³ adopted by the Austrian Federal Government in 2018, Austria has also explicitly committed itself at the political level to the international climate targets and to an active climate protection and energy policy. At the legal level, the Republic of Austria is committed to the principles of sustainability and comprehensive environmental protection in a special Federal Constitutional Act.¹⁴⁴ Climate protection measures are not explicitly mentioned in this Act. Nevertheless, the commitment to comprehensive

138 European Commission, 'Overview of sustainable finance' <https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance_en> accessed 1 December 2021.

139 Commission's communication, 'Action Plan: Financing Sustainable Growth' COM (2018) 97 final.

140 European Commission, 'International climate finance' <https://ec.europa.eu/clima/eu-action/international-action-climate-change/international-climate-finance_en> accessed 1 December 2021.

141 European Commission, 'International Platform on Sustainable Finance' <<https://bit.ly/3JQU1sa>> accessed 29 March 2021.

142 European Commission, 'International climate finance' <https://ec.europa.eu/clima/eu-action/international-action-climate-change/international-climate-finance_en> accessed 1 December 2021.

143 Available at <<https://bit.ly/36Uua3J>> accessed 28 March 2022.

144 Federal Constitutional Act on Sustainability, Animal Protection, Comprehensive Environmental Protection, on Water and Food Security as well as Research (*Bundesverfassungsgesetz über die Nachhaltigkeit, den Tierschutz, den umfassenden Umweltschutz, die Sicherstellung der Wasser- und Lebensmittelvesorgung und die Forschung*), Federal Law Gazette I 2013/111, last change I 2019/82.

environmental protection also includes climate protection measures, especially since specific environmental protection measures are only mentioned by way of example in the wording of the law. Explicit commitments to climate protection are, however, provided for in the constitutions of some Austrian Federal States.¹⁴⁵

4.3.1 Austrian climate targets and their legal basis

The Kyoto Protocol, which came into force in 2005, set binding climate targets for Austria for the first time. The European Commission's burden-sharing decision¹⁴⁶ obliged Austria to reduce its GHG emissions by 13% up to 2012 compared to the reference year 1990. However, there was no binding national legal basis for Austria's 2012 Kyoto climate target. Ultimately, Austria was able to meet the Kyoto targets only by purchasing credits from emission-reducing measures abroad; GHG emissions themselves were even higher than the 1990 level.¹⁴⁷

From 2013 onwards, Austria's climate targets must be viewed differently: Until 2012, there was a national target for all GHG emissions, but since then, a distinction has been made at the European level between emissions under the Emissions Trading System (ETS) and emissions in the non-ETS sector, which is also reflected in Austrian law. For GHG emissions subject to the EU ETS, there is only an EU-wide reduction target of -21% by 2020 and -43% by 2030.¹⁴⁸ These reduction obligations result from the EU Emissions Trading Directive¹⁴⁹, which was implemented in Austria by the Emission Certificate Act¹⁵⁰ with the fourth trading period running from 2021 until 2030.

For GHGs not covered by the EU ETS, there are individual binding targets for each EU Member State. According to the EU Effort Sharing Decision 2009¹⁵¹, Austria had to reduce its GHG emissions in the non-ETS sectors by 16% up to 2020

145 For more details see for example Schnedl (n 63) 104ff.

146 Commission Decision 2006/944/EC of 14 December 2006 determining the respective emission levels allocated to the Community and each of its Member States under the Kyoto Protocol pursuant to Council Decision 2002/358/EC (2006) OJ L 358/87.

147 Schnedl (n 63) 63, 79.

148 Compared to 2005; European Commission, 'Climate action' <https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/revision-phase-4-2021-2030_en> accessed 1 December 2021.

149 Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community (2003) OJ L 275/ 32.

150 *Emissionszertifikatesgesetz* 2011 (EZG 2011), Federal Law Gazette I 2011/118, last change I 2020/142.

151 Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020 (2009) OJ L 140/136.

compared to 2005 levels. These targets have been transferred to national law through the Austrian Climate Protection Act¹⁵², which came into force in 2011. The Act sets emission ceilings for a total of six sectors (energy and industry outside the EU ETS, transport, buildings, agriculture, waste management and fluorinated gases) and defines rules for the development and implementation of effective climate protection measures outside the EU ETS. This makes the Climate Protection Act one of the most important pillars of Austria's climate protection policy until 2020. According to the current Climate Protection Report¹⁵³, it is very likely that the 2020 targets in the non-ETS sectors could be achieved. This is not the least due to the collapse in the economy and transport caused by the Corona pandemic. By 2030, the present EU Effort Sharing Regulation¹⁵⁴ stipulates a 36% reduction of GHG emissions in the non-ETS sectors for Austria. However, this target is not compatible with the updated 2030 target of an EU-wide GHG reduction of at least 55% and is, therefore, to be increased to -48%.¹⁵⁵

To achieve the 2030 climate targets in the non-ETS sector, the Austrian Federal Government prepared a NECP¹⁵⁶ at the end of 2019, based on the Climate and Energy Strategy 2018 ‘#mission2030’¹⁵⁷ and in line with the EU Governance Regulation.¹⁵⁸ However, the 2030 targets have not yet been incorporated into the Austrian Climate Protection Act. An amendment aiming at implementing them as well as remediating existing deficiencies of the Act is in the final vote between the two governing parties.¹⁵⁹

In addition, the amendment to the Climate Protection Act aims to make Austria's climate neutrality by 2040, which is set out in the current government program,¹⁶⁰ legally binding. This Austrian target is very ambitious compared to the European

152 *Klimaschutzgesetz (KSG)*, Federal Law Gazette I 2011/106, last change I 2017/58.

153 Federal Environment Agency, *Climate protection report 2021* (Umweltbundesamt 2021) 15 <www.umweltbundesamt.at/fileadmin/site/publikationen/rep0776.pdf> accessed 1 December 2021.

154 Regulation (EU) 2018/842 (n 116).

155 Commission, ‘Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement’ COM (2021) 555 final; Federal Environment Agency (n 153) 17.

156 Federal Ministry for Sustainability and Tourism, ‘Integrated National Energy and Climate Plan for Austria’ (2019) <<https://bit.ly/3wDpXMS>> accessed 28 March 2022.

157 See <<https://bit.ly/36Uua3J>> accessed 28 March 2022.

158 Regulation (EU) 2018/1999 (n 94). For the Commission's criticism on the Austrian NECP, see below.

159 For further details on shortcomings of the current Climate Protection Act see Eva Schulev-Steindl, Miriam Hofer and Lena Franke, ‘Evaluierung des Klimaschutzgesetzes’ (2020), available at <<https://bit.ly/3utZmzf>> accessed 10 February 2022.

160 Republic of Austria, ‘Out of a sense of responsibility for Austria. Government Programme 2020-2024’ (2020) 72ff <www.bundeskanzleramt.gv.at/en/federal-chancellery/the-austrian-federal-government/government-documents.html> accessed 25 January 2022.

Climate Act's EU target (climate neutrality by 2050). However, to achieve it, more effective climate protection measures are needed than before, because in the current Climate Change Performance Index (CCPI) 2022,¹⁶¹ Austria ranks only 36th and the index classifies its climate action as 'low'. By comparison, the European Union is ranked 22nd – and thus shows a medium climate performance.

To achieve the climate goals, the energy sector and the corresponding targets are of particular importance: In the field of renewables, Austria was obliged by the RED I to increase the share of renewable energies in gross final energy consumption to 34% by 2020. In 2019, a 33.6% increase was reached, and due to the corona-induced economic downturn in 2020, the target was expected to be met.¹⁶² The RED II only provides an overall target for the EU, but no separate national reduction targets are assigned to the Member States. Instead, they must submit concrete national targets as part of their Integrated National Energy and Climate Plans. Austria has set a target of 46-50% for 2030 in its NECP¹⁶³. Another target is to cover 100% of total domestic electricity consumption from renewable energy sources by 2030 (2019: 75.1%).¹⁶⁴ Finally, the share of renewable energies in the transport sector should be at least 14% in 2030 (2019: 9.8%). This is to be achieved through an increasing share of e-mobility as well as through the increased use of biofuels in the petrol and diesel sector.

The legal basis for the expansion of renewable energies in Austria is primarily the Green Electricity Act¹⁶⁵ and the recently adopted Renewable Energy Expansion Act¹⁶⁶. The object of the Green Electricity Act – it transposes the RED I into national law – is to promote the generation of electrical energy from renewable energy sources. It aims to foster the production of green electricity by plants in Austria, to increase the share of green electricity generation, to ensure the energy-efficient production of green electricity and to end the dependence on nuclear power imports. Thereby, quantitative expansion targets are set for the individual energy sources (hydropower, wind power, biomass and biogas as well as photovoltaics) until 2020. Funding is provided through a feed-in tariff model and investment subsidies.¹⁶⁷ The Renewable Energy Expansion Act implements RED II and will replace the Green

161 Jan Bruck et al., 'Results. Monitoring climate mitigation efforts of 60 countries plus the EU – covering 92% of the global greenhouse gas emissions' (Climate Change Performance Index 2022) <https://ccpi.org/wp-content/uploads/CCPI-2022-Results_2021-11-10_A4.pdf> accessed 1 December 2021.

162 Federal Environment Agency (n 153) 38.

163 Integrated National Energy and Climate Plan for Austria (n 156).

164 Bundesministerium für Klimaschutz, Umwelt, Energie Mobilität, Innovation und Technologie (BMK), 'Energie in Österreich 2021. Zahlen, Daten, Fakten' (BMK 2021) 26 <<https://bit.ly/3iDKRTX>> accessed 28 March 2022; for more information see Renate Pirstner-Ebner, *Energierecht* (facultas 2020) 128 f.

165 *Ökostromgesetz 2012* (ÖSG 2012), Federal Law Gazette I 2011/75, last change I 2021/150.

166 *Erneuerbaren-Ausbau-Gesetz* (EAG), Federal Law Gazette I 2021/150, last change I 2022/13.

167 See for example Schnedl (n 63) 258; Pirstner-Ebner (n 164) 40.

Electricity Act over time. The new Act aims to achieve Austria's energy targets for 2030, namely to cover 100% of national electricity consumption from renewable energy sources. Two types of subsidies are envisaged, on the one hand investment subsidies for construction and expansion of generation plants (photovoltaic, hydro-power and wind power plants, electricity storages) and on the other hand market premiums for operating generation plants, i.e., for producing green electricity, the latter representing a new support model in Austria.¹⁶⁸

In this context, it should be noted that Austria does not use nuclear energy to generate electricity, unlike other Member States of the European Union, which are increasingly relying on nuclear energy in the fight against climate change. Together with Germany, Luxembourg, Portugal and Denmark, Austria has vehemently opposed the recognition of nuclear energy as 'sustainable' at the UN Climate Conference in Glasgow in November 2021 (COP26). Although Austria had built a nuclear power plant in the 1970s (Zwentendorf), it never went into operation. In a referendum held in 1978, a narrow majority of Austrians (50.5%) voted against generating energy through nuclear fission. In the meantime, the ban on energy production through nuclear fission has been elevated to constitutional status by the Federal Constitutional Act for a Nonnuclear Austria¹⁶⁹.

In the field of energy efficiency, the EU Member States have to set autonomous national energy efficiency targets in order to achieve the EU-wide targets specified in the Energy Efficiency Directive (reduction of energy consumption by 20% by 2020 and by 32.5% by 2030). In Austria, these are laid down in the Federal Energy Efficiency Act¹⁷⁰ of 2014. According to this law, energy efficiency in Austria is to be increased so that final energy consumption in 2020 should not exceed the level of 1050 petajoules (energy efficiency benchmark); this corresponds to a savings objective of around 21%.¹⁷¹ This target value could not be achieved.¹⁷² To reach the climate and energy goals by 2030 and 2040 (climate neutrality), a new energy efficiency law is currently being drafted.

168 See for example Benedikt Ennser, 'Das Erneuerbaren-Ausbau-Gesetz. Ein neuer Rechtsrahmen für die Energiewende' (2021) RdU-U&T 82 ff; Benjamin Schlatter, 'Alles neu bei den Erneuerbaren' (2021) ecolex 8 ff.

169 *Bundesverfassungsgesetz für ein atomfreies Österreich*, Federal Law Gazette I 1999/149.

170 *Bundes-Energieeffizienzgesetz (EEffG)*, Federal Law Gazette I 2014/72, last change I 2020/68.

171 See for example Schnedl (n 63) 260ff; Nicolas Raschauer and Thomas Riesz, 'Grundsätzliches und Spezielles zum neuen Energieeffizienzgesetz des Bundes' (2014) ZÖR 365 ff.

172 BMK (n 164) 29.

4.3.2 Climate protection measures according to Oslo Principles 7 and 8 in Austrian law – selected topics

As can be seen, measures to reduce GHG emissions as required by Oslo Principle 7 and 8 have been implemented, at least in part, mainly due to the requirements of European law. Frequently, however, the reduction targets have not been achieved. Reforms are therefore still necessary, as will be shown below using selected examples.

4.3.2.1 Elimination of fossil-fuel subsidies, including tax exemptions for certain industries

Reforms are necessary in Austria, for example, with regard to the elimination of broad subsidies for fossil fuels, including tax exemptions for certain industries such as aviation, as called for in Principle 7. While direct subsidies practically no longer play a role in Austria, there are various tax concessions and tax exemptions.¹⁷³ The government bill for an eco-social Tax Reform Act 2022¹⁷⁴, introduced by the Austrian Federal Government in December 2021, only constitutes a minor progress. From 2022 on, drastic greening measures are planned for the Austrian tax system, combined with various compensation and relief measures. The centrepiece of the reform is the introduction of carbon pricing starting with 1 July 2022. The introductory price will initially be only 30 euros per ton (the low carbon price has been heavily criticised in expert communities) and is to rise to 55 euros per ton by 2025.¹⁷⁵ Secondly, not least to cushion social inequalities, there will be a regionally differentiated climate bonus for the population based on a separate Climate Bonus Act.¹⁷⁶

In addition to the new carbon pricing, further ecological tax changes are planned with the 2022 tax reform. For example, the costs for replacing fossil heating systems and comprehensive thermal renovation will be tax deductible from 1 July 2022. However, there was no agreement on the abolition of the existing ‘diesel privilege’,

173 See in more detail Daniela Kletzan-Slamanig and Angela Köppl, ‘Umweltschädliche Subventionen in den Bereichen Energie und Verkehr’ (2016) WIFO-Monatsberichte 605, 610 <<https://bit.ly/37WMQAs>> accessed 28 March 2021.

174 1293 BlgNR XXVII. GP, Ökosoziales Steuerreformgesetz 2022 Teil I; the government bill has meanwhile become law, see Federal Law Gazette I 2022/10.

175 In the run-up there were numerous discussions concerning the introduction of CO₂ pricing in Austria; see for example Robin Damberger, ‘Österreich auf dem Weg zur CO₂-Bepreisung?’ (2021) RdU 149; Hedwig Unger, ‘Verfassungsrechtliche Vorgaben für CO₂- und Umweltsteuern in Österreich’ in Gottfried Kirchengast et al. (eds), *CO₂- und Umweltsteuern. Wege zu einer umwelt-, sozial- und wirtschaftsgerechten Steuerreform* (Böhlau Verlag 2020) 172.

176 Bundesgesetz über den regionalen Klimabonus (Klimabonusgesetz – KliBG), Federal Law Gazette I 2022/11.

which will thus remain in place: According to the Austrian Mineral Oil Tax Act¹⁷⁷, the mineral oil tax on diesel is 8.5 cents per litre lower than on petrol¹⁷⁸, which, in view of the global climate crisis, constitutes a tax advantage that can no longer be justified today and violates the Oslo Principles. The diesel privilege still dates back to a time when the aim was to promote economic recovery with cheap fuel for commercial vehicles.

The same applies to tax exemptions in favour of aviation, which still exist despite the sector's large environmental footprint. For example, the Austrian Mineral Oil Tax Act provides a tax exemption for kerosene,¹⁷⁹ and there is a VAT exemption for international flights.¹⁸⁰ To compensate for the latter, however, a tax is levied on airline tickets in Austria, which is regulated by the Federal Aviation Tax Act¹⁸¹. This levy was halved in 2018 to strengthen Austria's competitiveness but increased again in 2020 for reasons of climate protection.

The outlined preferential tax treatment of aviation (compared to rail transport) was recently subject of Austria's first climate lawsuit before the Constitutional Court.¹⁸² However, the Court dismissed the action for the plaintiffs' lack of direct concern and thus for formal reasons. The case therefore did not fail on substantive arguments and has meanwhile been referred to the European Court of Human Rights.¹⁸³

Finally, the Oil Boiler Installation Prohibition Act¹⁸⁴ passed in 2019 should be mentioned as a positive step towards decarbonisation of the building sector in Austria. The Act prohibits the installation of central heating boilers for liquid or solid fossil fuels and thus for coal, oil and natural gas in new buildings nationwide.¹⁸⁵ Because the Act affects the building law competence of the Federal States (some of them already established similar bans before), the aforementioned ban was established in the rank of a constitutional provision. The general phase-out of oil and coal heating systems is envisaged until 2035.¹⁸⁶ With regard to this, the Austrian Climate Protection Ministry is currently promoting the voluntary replacement of old coal, oil

177 *Mineralölsteuergesetz 2022* (MinStG 2022), Federal Law Gazette 1994/630, last change I 2021/227.

178 § 3 Mineral Oil Tax Act 2022.

179 § 4(1) no 1 Mineral Oil Tax Act 2022.

180 § 6(1) no 3 lit d Value Added Tax Act 1994 (*Umsatzsteuergesetz 1994*), Federal Law Gazette 1994/663, last change I 2022/10.

181 *Flugabgabegesetz*, Federal Law Gazette I 2010/111, last change I 2020/96.

182 VfGH 30. 9. 2020, G-144-145/2020-13, V 332/2020-13; Eva Schulev-Steindl, 'Klimaklage: VfGH weist Individualantrag gegen steuerliche Begünstigung der Luftfahrt zurück' (2020) 142 RdU 251; Dominik Geringer, 'Zur (fehlenden) Antragslegitimation einer "Klimaklage"' (2021) 16 JAP 160; Franz A M Koppensteiner and Stephanie Zolles, "'Über den Wolken muss die Freiheit wohl grenzenlos sein (...)"' (2021) 295 ÖStZ 231.

183 See above, section 2, and below, section 5.

184 *Ölkesselbauverbotsgesetz* (ÖKEVG), Federal Law Gazette I 2020/6.

185 For more information see Peter Bußjäger and Friederike Bundschuh-Rieseneder, 'Praxisfragen des Verbots der Errichtung von Ölheizungen' (2020) ÖZW 79.

186 Out of a sense of responsibility for Austria. Government Programme 2020-2024 (n 160) 77f.

and gas heating systems.¹⁸⁷ The switch to local or district heating, heat pumps or biomass heating is subsidised by the ministry with up to 7,500 euros. Coal also no longer plays a role in energy generation in Austria. The last Austrian coal-fired power plant (Mellach in Styria) was closed in 2020.¹⁸⁸ This is a decisive step towards a complete phase-out of fossil fuels and in line with the Oslo Principles: Principle 8 obliges states to refrain from erecting or expanding coal-fired power plants. At the EU level, however, the situation is different. According to Article 192(2) TFEU, a unanimous decision is required for a coal phase-out, which makes such a step unlikely in the short term, as some Member States are still heavily dependent on coal.

4.3.2.2 Promotion of measures to reduce energy consumption

In Austria, there are numerous laws at both the federal and federal state levels that promote measures for reducing energy consumption. At the federal level, the Environmental Promotion Act¹⁸⁹ and the Climate and Energy Fund Act¹⁹⁰ are the most important acts for fostering energy-saving measures. At the Federal States level, energy efficiency measures are promoted based on various environmental or eco-energy funds. In the building sector, the Housing Construction Subsidy Acts, the Building Acts and the Heating and Firing Systems Acts provide measures to improve the thermal quality of buildings. These Acts were issued to implement Directive 2010/31/EU on the energy performance of buildings.¹⁹¹ Hence, in Austria, there are not only strict legal measures to increase energy efficiency based on the Federal Energy Efficiency Act¹⁹², but also financial incentives to reduce energy consumption, as required by OP 7.

5 Procedural obligations and enforcement

One of the crucial points of climate action and climate law is the lack of sanctions for non-compliance with climate targets. This also applies to the Paris Agreement, where

187 <<https://kesseltausch.at/>> accessed 1 December 2021.

188 Die Presse, 'Letztes Kohlekraftwerk in Österreich geschlossen' (*Die Presse*, 14 April 2020) <www.diepresse.com/5801455/letztes-kohlekraftwerk-in-osterreich-geschlossen> accessed 1 December 2021.

189 *Umweltförderungsgesetz* (UFG), Federal Law Gazette 1993/185, last change I 2022/26.

190 *Klima- und Energiefondsgesetz* (KLI.EN-FondsG), Federal Law Gazette I 2007/40, last change I 2018/37.

191 Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (2010) OJ L 153/13.

192 See section 4.3.1 above.

the Parties could only agree on a rather soft compliance mechanism.¹⁹³ The Oslo Principles already adopted in the run-up to the agreement postulate no strict legal sanctions in case climate targets are missed – instead, they rely on economic consequences. Thus Principle 20 holds: ‘States must make their best efforts to bring about lawful and appropriate trade consequences for States that fail to comply with the obligations set out in [the] Principles.’

This may certainly be an efficient and reasonably practicable form of sanctioning ‘climate sinners’, but, as the authors of the Oslo Principles themselves point out, it entails problems with WTO law.¹⁹⁴ With respect to the EU, imposing economic sanctions would be a matter for the Union itself, since it has the foreign trade competence according to Article 3(1) lit e TEU. Even if this is not an issue at present, the EU is aware of the topic’s sensitivity and the tensions between international trade and environmental and climate protection. For example, in connection with the CETA trade agreement concluded between the EU and Canada, a ‘climate clause’ was adopted, according to which the two contracting parties intend to make joint and increasingly intensive efforts to meet the Paris climate targets.¹⁹⁵

Within the EU, i.e., in the relationship between Member States, imposing economic sanctions for reasons of climate protection would certainly be ruled out. This is because such national sanctions would constitute a violation of fundamental freedoms, particularly the freedom of goods and services,¹⁹⁶ and could hardly be justified in view of the very narrow rules on exceptions and the strict case law of the ECJ.¹⁹⁷

However, Member States’ climate obligations within the Union are subject to a monitoring and compliance system. As already mentioned, a ‘governance system for the Energy Union’ was implemented by a regulation.¹⁹⁸ This ‘governance mechanism’¹⁹⁹ is intended to encourage compliance with the climate targets by means of close-meshed, structured, transparent and repetitive notification, reporting and con-

193 See Paris Agreement, Article 15; on this issue see the contribution by Birgit Hollaus in this book.

194 Expert Group on Global Climate Change Obligations (n 1) 77; see in this context also Harro van Asselt, ‘Trade and climate disputes before the WTO: Blocking or driving climate action?’ in Ivano Alogna et al. (eds), *Climate change litigation: Global perspectives* (Brill 2021) 433–461, available at <https://doi.org/10.1163/9789004447615_020> accessed 10 February 2022.

195 Recommendation 001/2018 of 26 September 2018 of the CETA joint Committee <https://trade.ec.europa.eu/doclib/docs/2018/september/tradoc_157415.pdf> accessed 25 January 2022.

196 TFEU, Article 28 ff.

197 See TFEU, Article 36; Janja Hojnik, ‘Article 36’ in Hermann-Josef Blanke and Stelio Mangiameli (eds), *Treaty on the functioning of the European Union – a commentary* (Vol 1, Springer 2021) 787–812.

198 Governance Regulation (EU) 2018/1999 (n 94).

199 For the Austrian perspective see: Eva Schulev-Steindl, Miriam Hofer and Lena Franke, ‘Gutachten: Evaluierung des Klimaschutzgesetzes’ (ClimLaw: Graz 2020) <<https://bit.ly/3NroTl0>> accessed 28 March 2022.

sultation processes as well as monitoring measures between the Member States and the Commission.

The central instrument in this complex system are the ‘Integrated National Energy and Climate Plans’²⁰⁰, which Member States are to prepare every 10 years.²⁰¹ Member States must set national goals, guidelines and contributions, as well as include detailed descriptions of implementation strategies and measures, together with forecasts and impact assessments.²⁰² This is to be done with public participation and involvement of neighbouring countries.²⁰³ Drafts of the NECPs²⁰⁴ must be submitted to the Commission, which subjects them to a review process that examines, among other things, their suitability for achieving the objectives at the EU level, the ambition of the Member State, but also the appropriateness of the measures.²⁰⁵ Finally, the Commission makes recommendations to the Member States, which may only be deviated from with good reason.²⁰⁶ The NECPs must also be updated regularly during their period of validity and progress in implementation must be reported to the Commission.²⁰⁷ With regard to Austria, it can be noted that the first draft of such a plan in 2019 was criticised by the Commission as deficient²⁰⁸ and a more ambitious ‘reference NECP’ was presented as a model by the scientific community.²⁰⁹ Yet the Commission still saw room for improvement in Austria’s final NECP, especially with regard to the level of ambition.²¹⁰

The second important steering instrument of the Governance Regulation are long-term strategies at the national and EU level.²¹¹ These are also required by the Paris

200 See Governance Regulation (n 94), Article 3ff.

201 Ibid Article 3(1) and 9(1).

202 Ibid Article 3(2).

203 Ibid Article 10ff.

204 For all Member States available at <<https://bit.ly/35oNKFa>> accessed 29 March 2022.

205 Governance Regulation (n 94), Article 9, 13.

206 Article 9(3) of the Governance Regulation reads as follows: ‘Each Member State shall take due account of any recommendations from the Commission in its integrated national energy and climate plan. If the Member State concerned does not address a recommendation or a substantial part thereof, that Member State shall provide and make public its reasons.’

207 Governance Regulation (n 94), Article 14, 17ff.

208 EU Umweltbüro, ‘EU-Kommission: Österreichs Klimapläne höchst unzureichend’ (*EU Umweltbüro* 21 June 2019) at <www.eu-umweltbuero.at/inhalt/eu-kommission-oesterreichs-klima-plaene-hoechst-unzureichend> accessed 25 January 2022.

209 Gottfried Kirchengast et al., *Referenzplan als Grundlage für einen wissenschaftlich fundierten und mit den Pariser Klimazielen in Einklang stehenden Nationalen Energie- und Klimaplan für Österreich* (Ref-NEKP) (Verlag der Österreichischen Akademie der Wissenschaften 2019), available at <https://epub.oeaw.ac.at/0xc1aa5576_0x003b2d00.pdf> accessed 25 January 2022.

210 Europäische Kommission, ‘Arbeitsunterlage der Kommissionsdienststellen: Bewertung des endgültigen nationalen Energie- und Klimaplans Österreichs’ SWD (2020) 919 final, available at <<https://bit.ly/3MrBm84>> accessed 5 March 2022.

211 Governance Regulation (n 94), Article 15.

Agreement²¹² and are intended to show the development of GHG reductions in the respective Member State and across the EU for at least 30 years, i.e., initially in the time horizon up to 2050.²¹³ Other instruments of the Governance Regulation include rules for GHG inventory systems,²¹⁴ assessment of progress towards targets,²¹⁵ and annual reports by the Commission on the state of the Energy Union.²¹⁶ In addition, gap-filling mechanisms by the Commission are foreseen to address missing ambition levels in NECPs (so-called ‘ambition gaps’)²¹⁷ or insufficient progress of implementation measures (‘delivery gaps’).²¹⁸

The Effort Sharing Regulation, which provides for linear emission reduction targets²¹⁹ with annual emission allocations and certain flexibilities for Member States, also contains a compliance mechanism for the event of failure to meet emission levels by a member state.²²⁰ Finally, the new European Climate Law contains governance requirements for both the Union and the Member States: Starting with the goal of EU climate neutrality by 2050 and 55% GHG reduction by 2030 (compared to 1990), the European Commission is required to propose an interim target for 2040, to be accompanied by indicative GHG budgets as well as indicative and voluntary sectoral reduction pathways.²²¹ The Commission is to use five-yearly reviews to monitor progress at EU and Member State level towards the shared target.²²²

The final word on compliance will, of course, come from the European Court of Justice. If the governance mechanisms outlined are not effective and the Member States fail to meet their climate targets, which are to be understood as minimum targets,²²³ they would have to expect infringement proceedings.²²⁴ The climate policy

212 Paris Agreement, Article 4(19).

213 See Governance Regulation (n 94), Article 15(2).

214 Ibid Article 37.

215 Ibid Article 29.

216 Ibid Article 35.

217 Ibid Article 31.

218 Ibid Article 32.

219 See Regulation (EU) 2018/842 (n 116); Article 4(2) mentions a ‘linear trajectory’.

220 Effort Sharing Regulation (n 116), Article 8; on the possible resulting costs for Austria see Karl W Steininger et al., ‘Klimapolitik in Österreich: Innovationschance Coronakrise und die Kosten des Nicht-Handelns’ (2020) Wegener Center Research Briefs 32, available at <https://wegcwww.uni-graz.at/publ/wegerb/2020/WEGC-RB1-2020_Steininger-et-al_Klima-politik-InnochanceCorona-KostenNichthandeln.pdf> accessed 25 January 2022.

221 European Climate Law (n 62), Article 4(3)-(6).

222 European Climate Law (n 62), Article 6; Alison McDonnell et al., ‘Editorial comments. The European climate law: Making the social market economy fit for 55?’ (2021) 58 Common Market Law Review 1321 <<https://bit.ly/3wJu61H>> accessed 28 March 2022.

223 See Effort Sharing Regulation, Article 1 (n 116), that speaks of ‘minimum contributions’ – accordingly, it is possible and desirable for the Member States to aim for more ambitious reduction targets; cf. recital 26 to the Effort Sharing Regulation according to which (within the framework of the implementation of a safety reserve) ‘incentives for Member States’ actions beyond the minimum contributions under this Regulation’ should be maintained.

224 TFEU, Article 258.

of the EU itself can also be put to test before the ECJ. This is because the Court can examine secondary legislation on climate protection for compliance with primary law. In the so-called *People's Climate Case*²²⁵, several people already strongly affected by climate change, such as farmers, foresters, or hotel operators from various European countries, but also from Kenya and Fiji, tried to fight the so-called 'Climate Package' 2018²²⁶ for being too unambitious by filing an action for annulment.²²⁷ They claimed a violation of fundamental rights of the CFR (right to life, health, and property) and the TFEU (Article 191 – high level of protection in EU environmental policy, precautionary principle), but also of the Paris Agreement and argued that the target to reduce GHG emissions by 40% (compared to 1990) until 2030 was insufficient and had to be increased to at least 50-60%. The claim was dismissed in 2019 at first instance due to lack of legal standing: The 'fact that the effects of climate change may be different for one person than they are for another', the General Court²²⁸ stated, 'does not mean that, for that reason, there exists standing to bring an action against a measure of general application'. In 2021 the decision was upheld by the ECJ ruling that the mere allegation of an EU legal act violating fundamental rights would not lead to the admissibility of an individual action.²²⁹

As can be seen, both the Member States and the EU itself have thus subjected themselves to an independent jurisdiction before which – as required by the Oslo Principles (OP 25) – compliance with their climate protection commitments can be reviewed. At least in principle. As just outlined, the narrow admissibility requirements have already caused the first climate lawsuit against the EU to fail even before a substantive review of the EU's compliance could take place. Therefore, it can be doubted whether the underlying action for annulment is an effective legal remedy, as required by Article 47 CFR. A similar situation applies partly to the review of government climate action or its omission before the national courts of the Member States. It is true that in 2021 the German Federal Constitutional Court – widely granting *locus standi* and even extending it to citizens of other countries – declared parts of Germany's Climate Protection Act unconstitutional because it did not set GHG reduction targets beyond 2030. The Act thus had an 'encroachment-like pre-effect' on the plaintiffs' constitutional liberties and endangered the freedom of future gener-

225 <<https://peoplesclimatecase.caneurope.org/>> accessed 12 March 2022.

226 Emissions Trading Amendment Directive (EU) 2018/410, Effort Sharing Regulation (EU) 2018/842 and LULUCF Regulation (EU) 2018/841; see chapter 4.2.2.1.

227 TFEU, Article 263.

228 Case T-330/18 *Carvalho and Others v Parliament and Council* (2019) ECLI:EU:T:2019:324, para 50; see for example Gerd Winter, 'Armando Carvalho et al. versus Europäische Union: Rechtsdogmatische und staatsrechtliche Probleme einer Klimaklage vor dem Europäischen Gericht' (2019) ZUR 259.

229 Case *Carvalho* (n 39) para 48.

ations.²³⁰ The first Austrian climate lawsuit, on the other hand, was rejected in 2020, with the somewhat cynical argument that the plaintiffs, as rail passengers, and thus not directly affected, were not entitled to challenge tax privileges for aviation before the Constitutional Court.²³¹ It remains to be seen whether the ECtHR in Strasbourg, where this case is now pending,²³² will see the strict requirements of Austrian law on standing as a violation of the right to an effective remedy under Article 13 ECHR. These and similar climate lawsuits do, however, have one effect: In the sense of strategic litigation, they attract public attention and thus generate political momentum. For example, the more ambitious climate target of a 55% GHG reduction by 2030 (compared to 1990), which was sought in vain before the ECJ, is now set out in Article 4 of the new European Climate Law.

As outlined, active citizens and environmental organisations have helped to raise public awareness for the importance of climate policy in recent years through climate lawsuits, and, in many cases, governments have tightened up their measures. An essential prerequisite is, of course, the availability and accessibility of relevant information. This is what Principle 26 addresses when it requires states to make available all relevant information to enable people within their jurisdiction to assess the risk that climate change poses to their lives and health. The provision reminds of the first pillar of the Aarhus Convention,²³³ which obliges the contracting states to grant the public effective access to environmental information. This, in turn, is necessary for effective public participation and access to justice, as provided for in the second and third pillars of the Convention. Both Austria and the EU are parties to the Aarhus Convention and have adopted regulations to this effect: On the one hand, the Environmental Information Directive²³⁴ obliges EU institutions and Member States to give their citizens access to environmental information; on the other hand, in Austria, there are federal and federal state environmental information laws.²³⁵ In contrast, the implementation of the second and third pillars of the Convention is fragmented at the

230 *Neubauer et al. v Germany* (n 35) para 96ff, 184, 186, 266. The Court declared the German Climate Protection Act partially unconstitutional because it violates the fundamental rights of future generations; see for example Felix Ekardt and Franziska Heß, 'Bundesverfassungsgericht, neues EU-Klimaschutzrecht und das Klima-Ziel des Paris-Abkommens' (2021) NVwZ 1421; Kurt Faßbender, 'Der Klima-Beschluss des BVerfG – Inhalte, Folgen und offene Fragen' (2021) NJW 2085; for further reference see above (n 35).

231 VfGH 30 September 2020, G 144-145/2020-13, V 332/2020-13 (n 38).

232 *Mex M v Austria* (n 37).

233 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (adopted 25 June 1988, entered into force 30 October 2001) 2161 UNTS 447.

234 Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC OJ L 2003/41.

235 For federal law see the Environmental Information Act (*UIG*), Federal Law Gazette 1993/495, last change I 2018/74.

national level, as the legislator has decided against a uniform law.²³⁶ It should be noted that the right to (environmental) information also plays a central role in the jurisprudence of the ECtHR – this has been repeatedly underlined by the court, especially in context with the right to private and family life.²³⁷

6 Obligations for enterprises

In seeking to combat climate change quickly and comprehensively, the Oslo Principles do not only address states but also commit enterprises to reduce their GHG emissions. Thus Principle 27 obliges enterprises to

assess their facilities and property to evaluate their vulnerability to future climate change; the financial effect that future climate change will have on the enterprises; and the enterprises' efforts to increase their resilience to future climate change.

According to Principle 28, enterprises from the fossil-fuel industry must furthermore assess the impact that any limitations imposed on future extraction or use of fossil fuels will have on their financial situation. Relevant information should then be reported to the public, especially to investors, clients and securities regulators.

In short, company-specific climate risks should be assessed and disclosed, and carbon footprints should be relevant for investments. In recent years, the EU has increasingly taken legal steps in this direction.²³⁸ For example, with the NFR-Directive,²³⁹ issued in 2014, larger capital market-oriented companies have been obliged to 'non-financial reporting' and must now give information on environmental factors in addition to social issues and 'aspects of good corporate governance'. To specify these requirements, the Commission *inter alia* issued (non-binding) guidelines on reporting climate-related information²⁴⁰ in 2019. This 'green reporting',

236 Dieter Altenburger, 'Die Aarhus Konvention' in Daniel Ennöckl, Nicolas Raschauer and Wolfgang Wessely (eds), *Handbuch Umweltrecht* (3rd edn, facultas 2019) 390.

237 For example: *Tătar v Romania* App. no. 67021/01 (ECtHR 20 January 2001), *McGinley and Egan v the United Kingdom* App. no. 21825/93 and 23414/94 (ECtHR 9 June 1998).

238 Panagiotis Dimitropoulos and Konstantinos Koronios, 'Corporate environmental responsibility in the EU' in Panagiotis Dimitropoulos and Konstantinos Koronios (eds), *Corporate environmental responsibility, accounting and corporate finance in the EU. A quantitative analyses approach* (Springer 2021) 17-49; available at <<https://link.springer.com/book/10.1007/978-3-030-72773-4>> accessed 10 February 2022; see also recently Rolf H Weber and Andreas Hösl, 'Corporate climate responsibility – the rise of a new governance issue' (2021) *sui generis* 83, available at <<https://doi.org/10.21257/sg.171>> accessed 10 February 2022.

239 Directive 2014/95/EU of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups OJ L 330/1.

240 Commission Communication C/2019/4490 of 20 June 2019 Guidelines on non-financial reporting: Supplement on reporting climate-related information OJ C 209/1, 1-30.

which has been implemented in Austria in the Corporate Code,²⁴¹ is to be further expanded and intensified with the Draft Corporate Sustainability Reporting Directive²⁴² presented by the Commission in 2021. Specifically for financial market participants and financial advisors, the Sustainable Finance Disclosure Regulation from 2019²⁴³ sets out transparency obligations as to the consideration of sustainability risks and adverse sustainability impacts in their business processes as well as information obligations regarding the sustainability of financial products.

To promote the financing of sustainable investments – which is important for implementing the ‘Green Deal’ – the so-called Taxonomy Regulation²⁴⁴ was issued in 2020. In addition to disclosure requirements for companies, it contains criteria to assess the sustainability of economic activities, particularly regarding climate protection and adaptation to climate change. The Climate Benchmark Regulation²⁴⁵ also serves to avoid ‘greenwashing’ and to promote sustainable investments. It defines criteria for reference values to assess low-carbon investments and investment portfolios in relation to climate change in general and the Paris climate targets in particular.

Finally, the Oslo Principles (OP 29) provide that enterprises must conduct environmental impact assessments before building major new facilities. Such assessments have to include an analysis of the carbon footprint and ways to reduce it as well as possible impacts of future climate change on the planned facility. The instrument of environmental impact assessment thus addressed is well established in law. Under international law, the Espoo Convention²⁴⁶ lays down rules on environmental impact assessment for projects with significant transboundary effects. And at the European level, the EIA Directive,²⁴⁷ implemented in Austria through the Federal EIA Act,²⁴⁸ ensures that the environmental impacts of certain, larger projects are

241 § 243b *Unternehmensgesetzbuch* – UGB (Federal Corporate Code), dRGBI 1897/219, last change Federal Law Gazette I 2021/86.

242 Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting, COM/2021/189 final.

243 Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector OJ L 317/1.

244 Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 OJ L 198/13.

245 Regulation (EU) 2019/2089 of the European Parliament and of the Council of 27 November 2019 amending Regulation (EU) 2016/1011 as regards EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks OJ L 317/17.

246 Convention on Environmental Impact Assessment in a Transboundary Context (adopted 25 February 1991, entered into force 10 September 1997) 1989 UNTS 309 (Espoo Convention).

247 Environmental Impact Assessment Directive (n 59).

248 *Umweltverträglichkeitsprüfungsgesetz 2000 (UVP-G)*, Federal Law Gazette 1993/697, last change I 2018/80. See in more detail: Daniel Ennöckl and Nicolas Raschauer, ‘Umweltverträglichkeitsprüfung (UVP)’ in Daniel Ennöckl, Nicolas Raschauer and Wolfgang Wessely (eds), *Handbuch Umweltrecht* (3rd edn, facultas 2019) 297.

identified and reviewed prior to their implementation. Yet, aspects of climate protection only play a limited role in this context. While information on the project's GHG emissions must be provided by the applicant in the environmental impact statement, the amount of emissions is not a criterion for approval; the project's impact on the climate is only to be considered as part of the overall weighing of interests. This in turn can only result in a reason for rejecting the project in very exceptional cases.²⁴⁹

Austrian judges, however, took a courageous step in a 2017 decision: Following an EIA review, they denied approval for the expansion of Vienna Airport.²⁵⁰ The construction of a 3rd runway, they argued, would increase Austria's GHG emissions by about 2%, calling into question compliance with national and international GHG emission reduction commitments. This ruling of the Federal Administrative Court caused quite a stir in the media but was ultimately overturned by the Constitutional Court.²⁵¹ In any case, it was one of the first decisions worldwide to deny approval to a project on climate protection grounds – meanwhile there are numerous such cases.²⁵²

7 Conclusion

The Oslo Principles have made career: Over recent years, a more or less visionary initiative by a group of experts has become a legal reality in many areas. Based on international climate treaties, above all, the Paris Agreement, legislators and courts have created an increasingly dense network of climate protection-related obligations for states (or communities of states such as the EU) and enterprises. This has been shown above for the European Union and – on behalf of its Member States – for Austria.

249 Peter Sander, 'Die Rolle des Klimaschutzes im Genehmigungsverfahren – Eine Untersuchung aus Anlass des Genehmigungsverfahrens zur "3. Piste" des Flughafen Wien/Schwechat' (2019) ZTR 8.

250 BVwG 02.02.2017, W109 2000179-1; see on the judgment: Gottfried Kirchengast et al., 'Flughafen Wien: Untersagung der dritten Piste durch das BVwG' (2017) 3 RdU 121.

251 VfGH 29.06.2017, E 875/2017, E 886/2017; see e.g., Birgit Hollaus, 'Austrian Constitutional Court: Considering climate change as a public interest is arbitrary – refusal of third runway permit annulled' (2017) ICL Journal 467; Verena Madner and Eva Schulev-Steindl, 'Dritte Piste – Klimaschutz als Willkür? Anmerkungen zu VfGH 29.06.2017, E 875/2017, E 886/2017' (2017) ZÖR 589.

252 See *R (on the application of Friends of the Earth Ltd and Others) v Heathrow Airport Ltd* UKSC 2020/0042 at <www.supremecourt.uk/cases/docs/uksc-2020-0042-judgment.pdf> accessed 25 January 2022; similarly concerning the airport of Prague: Prague Regional Court 24 June 2020, 54 A 68/2019; for further comments on the airport judgments see Eva Balounová, 'BLOG: Climate change and the expansion of airports in court: Are there any arguments at all?' (GNHRE, 29 April 2021) <<https://bit.ly/3tTiQy9>> accessed 30 March 2022.

As the Principles already envisaged in 2015, this legal framework is strongly ‘fundamental rights-based’, i.e., finds its legitimacy and constitutional justification in fundamental and human rights. Positive obligations, as enshrined in the ECHR and in many national constitutions, thereby play a central part. These duties of states, but also of the EU itself, to protect citizens from the effects of climate change on life, health and property are, as also indicated by the Oslo Principles, based on the so-called precautionary principle. Climate policy must, therefore, also take into account scenarios that are less likely to occur, but whose impacts would be all the more serious. Consequently, as required by the Principles, the climate policy of the EU and its Member States should be geared to the 1.5 or 2°C target, which was also anchored in the Paris Agreement shortly after the Principles were issued. Member States for themselves can set more ambitious targets that go beyond the EU requirements: Austria, for example, is aiming for climate neutrality by 2040, 10 years earlier than the EU. This, at least in theory – in practice, there are still deficits, especially in the non-ETS sector, where Austria regularly has failed to meet its climate targets.

In recent years, civil society has proven to be a driving force for climate policy and law – Fridays for Future is just one example. Courts have also set milestones when called upon to join the fight for a more ambitious climate policy through climate lawsuits. Just as the Oslo Principles predicted, it will take the courage of individuals and the commitment of all if we are to achieve the climate goals – the Principles certainly point the way!

Bibliography

- Abreu Amorim C and Cardoso A, ‘European climate law – real changes or postponed future?’ (2021) 7(1) UNIO – EU Law Journal 138.
- Akandji-Kombe JF, *Positive obligations under the European Convention on Human Rights. A guide to the implementation of the European Convention of Human Rights* (Council of Europe Human Rights Handbooks Series 7, Council of Europe 2007) <<https://rm.coe.int/168007ff4d>> accessed 25 January 2022.
- Altenburger D, ‘Die Aarhus Konvention’ in Ennöckl D, Raschauer N and Wessely W (eds), *Handbuch Umweltrecht* (3rd edn, facultas 2019) 390.
- Bäumler J, ‘Sustainable development made justiciable: The German Constitutional Court’s climate ruling on intra- and inter-generational equity’ (2021) EJIL <www.ejiltalk.org/sustainable-development-made-justiciable-the-german-constitutional-courts-climate-ruling-on-intra-and-inter-generational-equity/> accessed 25 January 2022.
- Beauregard C et al., ‘Climate justice and rights-based litigation in a post-Paris world’ (2021) 21 Climate Policy 652 <<https://doi.org/10.1080/14693062.2020.1867047>> accessed 3 March 2022.
- Bell S et al., *Environmental law* (9th edn, Oxford University Press 2017).
- Bogojevic S, ‘Climate change law and policy in the European Union’ in Carlarne CP et al. (eds), *The Oxford handbook of international climate change law* (Oxford University Press 2016) 670.

- Bourguignon D, 'The precautionary principle. Definitions, applications and governance' (European Parliamentary Research Service 2015) <<https://bit.ly/36EtBLE>> accessed 28 March 2022.
- Braig KF, 'Reichweite und Grenzen der umweltrechtlichen Schutzpflichten' (2017) 39 NuR 100.
- and Panov S, 'The doctrine of positive obligations as a starting point for climate litigation in strasbourg: The European Court of Human Rights as *Hilfssheriff* in combating climate change?' (2020) 35 Journal of Environmental Law and Litigation 261.
- Bruck J et al., 'Results. Monitoring climate mitigation efforts of 60 countries plus the EU – covering 92% of the global greenhouse gas emissions' (Climate Change Performance Index 2022) <https://ccpi.org/wp-content/uploads/CCPI-2022-Results_2021-11-10_A4.pdf> accessed 1 December 2021.
- Bundesministerium für Klimaschutz, Umwelt, Energie Mobilität, Innovation und Technologie, 'Energie in Österreich 2021. Zahlen, Daten, Fakten' (BMK 2021) <<https://bit.ly/3iDKRTX>> accessed 28 March 2022.
- Buser A, 'Die Freiheit der Zukunft' (2021) Verfassungsblog <<https://verfassungsblog.de/die-freiheit-der-zukunft/>> accessed 25 January 2022.
- Bußjäger P and Bundschuh-Rieseneder F, 'Praxisfragen des Verbots der Errichtung von Ölheizungen' (2020) ÖZW 79.
- Damberger R, 'Österreich auf dem Weg zur CO₂-Bepreisung?' (2021) RdU 149.
- De Sadeleer N, 'The precautionary principle as a device for greater environmental protection: Lessons from EC courts' (2009) 18 RECIEL 3-10 <<https://doi.org/10.1111/j.1467-9388.2009.00616.x>> accessed 14 February 2022.
- , *Environmental law principles – from political slogans to legal rules* (2nd edn, Oxford University Press 2020).
- Dederer HG, 'Die Governance-Verordnung der Union. Klimapolitische Steuerung der EU-Mitgliedstaaten in Richtung Nachhaltigkeit' (2021) NR 25.
- Die Presse, 'Letztes Kohlekraftwerk in Österreich geschlossen' (*Die Presse*, 14 April 2020) <www.diepresse.com/5801455/letztes-kohlekraftwerk-in-osterreich-geschlossen> accessed 1 December 2021.
- Dimitropoulos P and Koronios K, 'Corporate environmental responsibility in the EU' in Dimitropoulos P and Koronios K (eds), *Corporate environmental responsibility, accounting and corporate finance in the EU. A quantitative analyses approach* (Springer 2021) 17-49 <<https://link.springer.com/book/10.1007/978-3-030-72773-4>> accessed 10 February 2022.
- Ekdardt F, 'Climate revolution with weakness' (2021) Verfassungsblog <<https://verfassungsblog.de/climate-revolution-with-weaknesses/>> accessed 25 January 2022.
- and Heß F, 'Bundesverfassungsgericht, neues EU-Klimaschutzrecht und das Klima-Ziel des Paris-Abkommens' (2021) NVwZ 1421.
- et al., 'Paris Agreement, precautionary principle and human rights: Zero emissions in two decades?' (2018) 10(8) Sustainability <<https://doi.org/10.3390/su10082812>> accessed 15 March 2022.
- Ennöckl D, 'Wie kann das Recht das Klima schützen?' (2020) ÖJZ 302.
- and Raschauer N, 'Umweltverträglichkeitsprüfung "UVP"' in Ennöckl D, Raschauer N and Wessely W (eds), *Handbuch Umweltrecht* (3rd edn, facultas 2019) 297.
- Ennsner B, 'Das Erneuerbaren-Ausbau-Gesetz. Ein neuer Rechtsrahmen für die Energiewende' (2021) RdU-U&T 82.
- Epiney A, *Umweltrecht der Europäischen Union* (4th edn, Nomos 2019).

- Epstein C, 'Common but differentiated responsibilities' (*Britannica*, 29 December 2015) <www.britannica.com/topic/common-but-differentiated-responsibilities> accessed 26 February 2022.
- EU Umweltbüro, 'EU-Kommission: Österreichs Klimapläne höchst unzureichend' (EU Umweltbüro 21 June 2019) <www.eu-umweltbuero.at/inhalt/eu-kommission-oesterreichs-klimaplaene-hoehchst-unzureichend> accessed 25 January 2022.
- Europäische Kommission, 'Arbeitsunterlage der Kommissionsdienststellen: Bewertung des endgültigen nationalen Energie- und Klimapläns Österreichs' SWD (2020) 919 final <https://ec.europa.eu/energy/sites/default/files/documents/staff_working_document_assessment_necp_austria_de.pdf> accessed 25 January 2022.
- European Commission, 'Climate action' <https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/revision-phase-4-2021-2030_en> accessed 1 December 2021.
- , 'EU Emissions Trading System (EU ETS)' <https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets_en> accessed 1 December 2021.
- , 'International climate finance' <https://ec.europa.eu/clima/eu-action/international-action-climate-change/international-climate-finance_en> accessed 1 December 2021.
- , 'International platform on sustainable finance' <https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en> accessed 1 December 2021.
- , 'Land use and forestry regulation for 2021-2030' <https://ec.europa.eu/clima/eu-action/forests-and-agriculture/land-use-and-forestry-regulation-2021-2030_en> accessed 1 December 2021.
- , 'Overview of sustainable finance' <https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance_en> accessed 1 December 2021.
- European Council, Council of the European Union, 'Latest EU policy actions on climate change' <www.consilium.europa.eu/en/policies/climate-change/eu-climate-action/> accessed 1 December 2021.
- European Court of Human Rights Press Unit, 'Environment and the European Convention on Human Rights' (ECtHR, January 2021) <<https://bit.ly/3LlwK1P>> accessed 28 March 2022.
- Expert Group on Global Climate Obligations (ed), *Oslo Principles on Global Climate Change* (Eleven International Publishing 2015) <<https://bit.ly/3Mo7hX0>> accessed 28 March 2022.
- Expert Group on Climate Obligations of Enterprises, *Principles on Climate Obligations of Enterprises* (Eleven International Publishing 2018) <<https://bit.ly/3NqbABn>> accessed 28 March 2022.
- (ed), *Principles on Climate Obligations of Enterprises* (2nd edn, Eleven 2020) <<https://climateprinciplesforenterprises.org/>> accessed 10 February 2022.
- Farkas B et al., 'Human rights and climate obligations, draft memorandum for the Experts' Group on Global Climate Change' (Yale Law School, April 2013) <<https://bit.ly/37WJGg4>> accessed 24 January 2022.
- Faßbender K, 'Der Klima-Beschluss des BVerfG – Inhalte, Folgen und offene Fragen' (2021) NJW 2085.
- Federal Environment Agency, *Climate protection report 2021* (Umweltbundesamt 2021) <www.umweltbundesamt.at/fileadmin/site/publikationen/rep0776.pdf> accessed 1 December 2021.
- Federal Ministry for Sustainability and Tourism, 'The Austrian strategy for adaptation to climate change, Part 1 – context' (Federal Ministry for Sustainability and Tourism 2017) 25, 65 <<https://bit.ly/3Ce4ASX>> accessed 25 January 2022.

- , ‘Integrated national energy and climate plan for Austria’ (2019) <<https://bit.ly/3wDpXMS>> accessed 28 March 2022.
- Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, ‘First Commitment Period (2008 to 2012)’ <www.bmu.de/en/topics/climate-adaptation/climate-protection/international-climate-policy/kyoto-protocol/commitment-periods> accessed 1 December 2021.
- Fitz J and Ennöckl D, ‘Klimaschutzrecht’ in Ennöckl D, Raschauer N and Wessely W (eds), *Handbuch Umweltrecht* (3rd edn, facultas 2019) 757.
- Fleming R and Mauger R, ‘Green and just? An update on the “European Green Deal”’ (2021) 18 Journal for European Environmental & Planning Law 164–180.
- Frank W, ‘Anmerkungen zu den “Oslo Principles on Global Climate Change Obligations”’ (2015) NVwZ 1499.
- Frenz W, ‘EU-Klimapaket Fit for 55’ (2021) UPR 338.
- , ‘Nachhaltige Wirtschaftswende nach dem EU-Klimapaket “Fit for 55”’ (2021) EWS 241.
- Garnett K and Parsons DJ, ‘Multi-case review of the application of the precautionary principle in European Union law and case law’ (2017) 37 Risk Analysis 502.
- Geringer D, ‘Zur (fehlenden) Antragslegitimation einer “Klimaklage”’ (2021) 16 JAP 160.
- Heiskanen H, ‘Climate change and the European Court of Human Rights’ in Duyck S et al. (eds), *Routledge handbook of human rights and climate governance* (Routledge 2018).
- Hofer M, *Die Staatliche Verantwortung für den Umwelt- und Klimaschutz* (in preparation).
- Hojnik J, ‘Art 36’ in Blanke H-J and Mangiameli S (eds), *Treaty on the Functioning of the European Union – A commentary* (Vol 1, Springer 2021) 787–812.
- Hollaus B, ‘Austrian Constitutional Court: Considering climate change as a public interest is arbitrary – refusal of third runway permit annulled’ (2017) ICL Journal 467.
- Horstink L, Wittmayer J and Ng K, ‘Pluralising the European energy landscape: Collective renewable energy prosumers and the EU’s clean energy vision’ (2021) 153 Energy Policy <<https://doi.org/10.1016/j.enpol.2021.112262>> accessed 14 February 2022.
- 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* (IPCC 2014).
- , *Climate change 2021: The physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press in Press).
- , ‘Summary for policymakers (SPM)’ in Masson-Delmotte V et al. (eds), *Climate change 2021: The physical science basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press in Press) <www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf> accessed 25 January 2022.
- Karlsson Niska T, ‘Climate change litigation and the European Court of Human Rights – a strategic next step?’ (2020) 13 The Journal of World Energy Law & Business 331.
- Kirchengast G et al., ‘Flughafen Wien: Untersagung der dritten Piste durch das BVwG’ (2017) 3 RdU 121.
- , *Referenzplan als Grundlage für einen wissenschaftlich fundierten und mit den Pariser Klimazielen in Einklang stehenden Nationalen Energie- und Klimaplan für Österreich (Ref-NEKP)* (Verlag der Österreichischen Akademie der Wissenschaften 2019) <https://epub.oeaw.ac.at/0xc1aa5576_0x003b2d00.pdf> accessed 25 January 2022.

- Kletzan-Slamanig D and Köppl A, 'Umweltschädliche Subventionen in den Bereichen Energie und Verkehr' (2016) WIFO-Monatsberichte 605, 610 <<https://bit.ly/3s2ckUp>> accessed 29 April 2021.
- Klimareporter, 'Reiche Länder haben 100-Milliarden-Versprechen gebrochen' <<https://bit.ly/3yigvzt>> accessed 29 April 2022.
- Koppensteiner FAM and Zolles S, "'Über den Wolken muss die Freiheit wohl grenzenlos sein [...]" (2021) 295 ÖStZ 231.
- Langlet D and Mahmoudi S, *EU environmental law and policy* (Oxford University Press 2016).
- Lengauer A, 'Die Energiepolitik der Europäischen Union im Angesicht des Klimawandels. Ein Überblick über Kompetenzen, Maßnahmen und Problemfelder' (2020) ZfRV 196.
- Madner V and Schulev-Steindl E, 'Dritte Piste – Klimaschutz als Willkür? Anmerkungen zu VfGH 29.06.2017, E 875/2017, E 886/2017' (2017) ZÖR 589.
- Maquire R, 'The role of common but differentiated responsibility in the 2020 climate regime: Evolving a new understanding of differential commitments' (2013) 7 CCLR 260.
- Marchant GE and Mossman KL, *Arbitrary and capricious: The precautionary principle in the European Union courts* (The AEI Press 2005).
- Matthews HD, 'Quantifying historical carbon and climate debts among nations' (2016) 6 Nature Climate Change 60.
- McDonnell A et al., 'Editorial comments. The European Climate Law: Making the social market economy fit for 55?' (2021) 58 Common Market Law Review 1321 <<https://kluwerlawonline.com/journalarticle/Common+Market+Law+Review/58.3/COLA2021084>> accessed 25 January 2022.
- Meyer LH and Roser D, 'Climate justice and historical emissions' (2010) 13 Critical Review of International Social and Political Philosophy 229.
- Meyer L and Steininger K, *Das Treibhausgas-Budget für Österreich* (Wegener Center Verlag 2017) <<https://wegcwww.uni-graz.at/publ/wegcreports/2017/WCV-WissBer-Nr72-LMeyerKSteininger-Okt2017.pdf>> accessed 1 December 2021.
- Meyer S, 'Grundrechtsschutz in Sachen Klimawandel' (2020) NJW 894.
- Monti G, 'The European Climate Law: Making the social market economy fit for 55?' (2021) 58(5) Common Market Law Review 1321.
- Müllerova H, 'Environment playing short-handed: Margin of appreciation in environmental jurisprudence of the European Court of Human Rights' (2014) 24 RECIEL 83.
- Nagra S, 'The Oslo Principles and climate change displacement: Missed opportunity or misplaced expectations?' (2017) 11 Carbon & Climate Law Review 120.
- Pause F, "'Saubere Energie für alle Europäer" – Was bringt das Legislativpaket der EU?' (2019) ZUR 387.
- Pedersen OW, 'The European Convention of Human Rights and Climate Change – finally!' (2020) EJIL <www.ejiltalk.org/the-european-convention-of-human-rights-and-climate-change-finally/> accessed 25 January 2022.
- Peel J and Lin J, 'Transnational climate litigation: The contribution of the global South' (2019) 113 The American Journal of International Law <<https://doi.org/10.1017/ajil.2019.48>> accessed 12 March 2022.
- and Osofsky HM, 'A rights turn in climate litigation' (2018) 7 Transnational Environmental Law 47 <<https://doi.org/10.1017/S2047102517000292>> accessed 15 March 2022.
- Pérez de las Heras B, 'European climate law(s): Assessing the legal path to climate neutrality' (2021) 21(2) Romanian Journal of European Affairs 19.

- Pirstner-Ebner R, *Energierrecht* (facultas 2020).
- Piska C, 'Art 191 AEUV' in Jäger T and Stöger K (eds), *EUV/AEUV* (Manz 2021) 31.
- Prickartz AC, 'Man muss mit den Riemen rudern, die man hat: Umweltschutz als Menschenrecht vor dem Europäischen Gerichtshof für Menschenrechte' (2015) 5 NLMR 386.
- Proelß A, 'Europäische Energieunion und internationaler Klimaschutz: Konkurrenz oder Konvergenz?' (2019) EurUP 72.
- Raible L, 'Expanding human rights obligations to facilitate climate justice? A note on shortcomings and risks' (2021) EJLT <www.ejiltalk.org/expanding-human-rights-obligations-to-facilitate-climate-justice-a-note-on-shortcomings-and-risks/> accessed 25 January 2022.
- Rajamani L, 'The principle of common but differentiated responsibility and the balance of commitments under the climate regime' (2000) 9 RECIEL 120.
- Raschauer N and Riesz T, 'Grundsätzliches und Spezielles zum neuen Energieeffizienzgesetz des Bundes' (2014) ZÖR 365.
- Récsey C, 'Principles of European environmental law Art 191 (2) TFEU' in Wagner E and Pree M (eds), *European environmental law* (vol. 1, Trauner Verlag 2012) 77.
- Republic of Austria, 'Out of a sense of responsibility for Austria. Government programme 2020-2024' (2020) <<https://bit.ly/3INmUUK>> accessed 29 March 2022.
- Röttger-Wirtz S, 'Case C-616/17 *Blaise and Others*: The precautionary principle and its role in judicial review – Glyphosate and the regulatory framework for pesticide' (2020) 27 Maastricht Journal of European and Comparative Law 529-542 <<https://doi.org/10.1177/1023263X20949424>> accessed 10 February 2022.
- Saiger AJ, 'The Constitution speaks in the future tense. On the constitutional complaints against the Federal Climate Change Act' (2021) Verfassungsblog <<https://verfassungsblog.de/the-constitution-speaks-in-the-future-tense/>> accessed 25 January 2022.
- Sander P, 'Die Rolle des Klimaschutzes im Genehmigungsverfahren - Eine Untersuchung aus Anlass des Genehmigungsverfahrens zur "3. Piste" des Flughafen Wien/Schwechat' (2019) ZTR 8.
- Sands P and Peel J, *Principles of international environmental law* (4th edn, Cambridge University Press 2018).
- Schlacke S and Knodt M, 'Das Governance-System für die Europäische Energieunion und für den Klimaschutz' (2019) ZUR 404.
- , Köster M and Thierjung EM, 'Das „Europäische Klimagesetz“ und seine Konsequenzen' (2021) EuZW 620.
- et al., 'Implementing the EU climate law via the 'fit for 55' package' (2022) 1 Oxford Open Energy 1.
- Schlatter B, 'Alles neu bei den Erneuerbaren' (2021) ecolex 8.
- Schnedl G, 'Grundrechtsschutz gegenüber Umweltbeeinträchtigungen in der Rechtsprechung des Europäischen Gerichtshofs für Menschenrechte. Altes und Neues zu Art. 8 EMRK' in Hauser W and Thomasser A (eds), *Bildung, Wissenschaft, Politik. Instrumente zur Gestaltung der Gesellschaft* (Böhlau Verlag 2014) 647.
- , *Umweltrecht* (facultas 2020).
- Schuelken T and Siehla B, 'Das Europäische Klimagesetz – Inhalt, Rechtsfragen und Ausblick' (2021) UPR 1.
- Schulev-Steindl E, 'Klimaklage: VfGH weist Individualantrag gegen steuerliche Begünstigung der Luftfahrt zurück' (2020) 142 RdU 251.
- , 'Klimaklagen: Ein Trend erreicht Österreich' (2021) ecolex 17.

- , Hofer M and Franke L, ‘Gutachten: Evaluierung des Klimaschutzgesetzes’ (ClimLaw: Graz 2020) <<https://bit.ly/3NroTI0>> accessed 28 March 2022.
- Siddi M, ‘The European Green Deal: Assessing its current state and future implementation’ (2020) FIIA Working Paper 114.
- Sikora A, ‘European Green Deal – legal and financial challenges of the climate change’ (2021) 21 ERA Forum 681.
- Sobotta C, ‘Recent applications of the precautionary principle in the jurisprudence of the CJEU – a new yardstick in EU environmental decision making?’ (2020) 21 ERA Forum 723-735.
- Spier J, ‘The “strongest” climate ruling yet: The Dutch Supreme Court’s *Urgenda* judgment’ (2020) 67 Netherlands International Law Review 320.
- Squintani L, ‘Regulation of emissions from non-ETS sectors’ in Woerdman E, Roggenkamp M and Holwerda M (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021).
- Stangl F, ‘Zur Genese des Europäischen Klimagesetzes. Wegbereiter für die Klimaneutralität 2050’ (2021) NR 14.
- and Mauger R, ‘EU climate policy’ in Woerdman E, Roggenkamp M and Holwerda M (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021).
- Staudinger I, ‘The European Green Deal – what is in a name?’ in Schulev-Steindl E, Ruppel OC and Kerschner F (eds), *Climate law – current opportunities and challenges. Essays from the official opening of ClimLaw: Graz* (Eleven International Publishing 2021) 115.
- Steininger KW et al., ‘Klimapolitik in Österreich: Innovationschance Coronakrise und die Kosten des Nicht-Handelns’ (2020) Wegener Center Research Briefs 32 <https://wegcwww.uni-graz.at/publ/wegcwb/2020/WEGC-RB1-2020_Steininger-et-al_Klimapolitik-InnochanceCorona-KostenNichthandeln.pdf> accessed 25 January 2022.
- UNEP, ‘Climate change and human rights’ (UNEP 2015) <<https://bit.ly/3817vU1>> accessed 28 March 2022.
- Unger H, ‘Verfassungsrechtliche Vorgaben für CO₂- und Umweltsteuern in Österreich’ in Kirchengast G et al. (eds), *CO₂- und Umweltsteuern. Wege zu einer umwelt-, sozial- und wirtschaftsgerechten Steuerreform* (Böhlau Verlag 2020) 172.
- Van Asselt H, ‘Trade and climate disputes before the WTO: Blocking or driving climate action?’ in Alogna I et al. (eds), *Climate change litigation: Global perspectives* (Brill 2021) 433-461 <https://doi.org/10.1163/9789004447615_020> accessed 10 February 2022.
- Vedder H, ‘Energy efficiency’ in Woerdman E, Roggenkamp M and Holwerda M (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021).
- Wagner G, ‘Klimaschutz durch Gerichte’ (2021) NJW 2256.
- Weber R and Hösli A, ‘Corporate climate responsibility – the rise of a new governance issue’ (2021) *sui generis* 83 <<https://doi.org/10.21257/sg.171>> accessed 10 February 2022.
- Wegener B, ‘*Urgenda* – Weltrettung per Gerichtsbeschluss?’ (2019) ZUR 3, 10ff.
- Wewerinke-Singh M, ‘State responsibility for human rights violations associated with climate change’ in Jodoin S, Duyck S and Johl A (eds), *Routledge handbook of human rights and climate governance* (Routledge 2018).
- Winter G, ‘Armando Carvalho et alii versus Europäische Union: Rechtsdogmatische und staatsrechtliche Probleme einer Klimaklage vor dem Europäischen Gericht’ (2019) ZUR 259.
- Woerdman E, ‘EU emissions trading system’ in Woerdman E, Roggenkamp M and Holwerda M (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021).
- Wolf S et al., ‘The European Green Deal – more than climate neutrality’ (2021) 2 *Intereconomics* 99.

Woolley O, 'Renewable energy consumption' in Woerdman E, Roggenkamp M and Holwerda M (eds), *Essential EU climate law* (2nd edn, Edward Elgar Publishing Ltd 2021).

Yoshida K and Setzer J, 'The trends and challenges of climate litigation and human rights' (2020) 2 *European Human Rights Law Review* 140.

Cases

Austria

Greenpeace et al. v Austria, VfGH 30.09.2020, G 144-145/2020-13, V 332/2020-13, the decision (in German) is available at <<http://climatecasechart.com/climate-change-litigation/non-us-case/greenpeace-v-austria/>> accessed 25 January 2022.

Vienna-Schwechat Airport Expansion, BVwG 02.02.2017, W109 2000179-1, the decision (in German) is available at <<http://climatecasechart.com/climate-change-litigation/non-us-case/in-re-vienna-schwachat-airport-expansion/>> accessed 25 January 2022; VfGH 29.06.2017, E 875/2017, E 886/2017, the decision (unofficial English translation) is available at <<http://climatecasechart.com/climate-change-litigation/non-us-case/in-re-vienna-schwachat-airport-expansion/>> accessed 25 January 2022.

Germany

Neubauer et al. v Germany, Bundesverfassungsgericht 24.03.2021, 1 BvR 2656/18, 1 BvR 78/20, 1 BvR 96/20, 1 BvR 288/20, for an English translation see <<http://climatecasechart.com/climate-change-litigation/non-us-case/neubauer-et-al-v-germany/>> accessed 25 January 2022.

Switzerland

Union of Swiss Senior Women for Climate Protection v Swiss Federal Council and Others, Bundesgericht 05.05.2020, 1C_37/2019 (*Klimasenioren in Switzerland*), the decision (unofficial English translation) is available at <<http://climatecasechart.com/climate-change-litigation/non-us-case/union-of-swiss-senior-women-for-climate-protection-v-swiss-federal-parliament/>> accessed 25 January 2022.

The Netherlands

Urgenda Foundations v State of the Netherlands, Hoge Raad 20.12.2019, 19/00135, ECLI:NL:HR:2019:2007, an English translation is available at <<https://bit.ly/3KcQ9RT>> accessed 28 March 2022.

United Kingdom

Friends of the Earth Ltd and Others v Heathrow Airport, R (on the application of Friends of the Earth Ltd and Others) v Heathrow Airport Ltd UKSC 2020/0042, available at <www.supremecourt.uk/cases/docs/uksc-2020-0042-judgment.pdf> accessed 25 January 2022.

European Court of Human Rights

Baduyeva et al. v Russia App. no. 15339/02 (ECtHR 20 March 2008).

Duarte Agosthino and Others v Portugal and Others App. no. 39371/20 (ECtHR, pending), see: <<https://youth4climatejustice.org/wp-content/uploads/2020/11/GLAN-ECtHR-Application.pdf>> accessed 25 January 2022.

Klimaseniorinnen v Switzerland App. no. 536000/20 (ECtHR, pending) <<https://bit.ly/3LsH1cN>> accessed 25 January 2022.

Kolyadenko et al. v Russia App. no. 17423/05 (ECtHR 28 February 2012).

McGinley and Egan v the United Kingdom App. no. 21825/93 and 23414/94 (ECtHR 9 June 1998).

Mex M. v Austria (pending), the application is available at <<http://climatecasechart.com/climate-change-litigation/non-us-case/mex-m-v-austria/>> accessed 29 April 2022.

Öneryildiz v Turkey App. no. 48939/99 (ECtHR 30 November 2004).

Özel et al. v Turkey App. no. 14350/05 (ECtHR 17 November 2015).

Tătar v Romania App. no. 67021/01 (ECtHR 20 January 2001).

European Court of Justice

Armando Carvalho and Others v European Parliament and Council of the European Union, Case T-330/18 *Carvalho and Others v Parliament and Council* (2019) ECLI:EU:T:2019:324; Case C-565/19 *P Armando Carvalho and Others v European Parliament and Council of the European Union* (2021) ECLI:EU:C:2021:252.

Case C-2/00 *Cartagena Protocol* (2002) ECR I-09713, ECLI:EU:C:2001:664, Rn 29.

Case C-5/16 *Poland v Parliament and Council* (2018) ECLI:EU:C:2018:483.

Opinion 2/13 of the ECJ of 18 December 2014, ECLI:EU:C:2014:2454.