

The Future of European Environmental Policy in Appreciation of German Federal Constitutional Jurisprudence

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Abstract

The European Green Deal introduced by the European Commission represents the kick-off of a new environmental and climate protection policy. Environmental safeguards and sustainability seem to be the leitmotif of European politics in the future. Ambitious goals are prompting a profound ecological transformation. Nevertheless, many of the challenges raised in recent years still persist. Above all, existing European environmental law is often insufficiently implemented by the Member State level. Environmental and climate protection is also not adequately integrated into other policy areas, such as agricultural and transport policy. The ecological turnaround seems to step up to the plate and further develop elements of the previous reform discussion. A CO₂ border compensation system for selected sectors is going to be proposed in order to reduce the risk of relocation of economic activities and emissions abroad (carbon leaks). The commitments made both worldwide and within the European Union (EU) to reduce greenhouse gas emissions make a structural change towards a climate-neutral economic situation in Germany inevitable. In recent years, numerous political initiatives have therefore been presented with the aim to accelerate this transformation. With the goal of climate neutrality in 2050, the close connection between climate policy and the competitive position of German industry has come into particular focus. With a view to the climate lawsuits pending before the BVerfG and based on the proposal for a European fundamental right to environmental protection, which the writer Ferdinand von Schirach has recently introduced into the debate, the article examines the legal opportunities, but also the limits, that German and European fundamental rights can play in the context of climate policy. As a result, the contribution pleads for a fundamental right to environmental protection, to be characterised as enforceable from a procedural point of view. Ultimately, with a view to planetary boundaries (in climate protection: 1.5-2 degree target), the contribution hints at the recognition of a fundamental right to the minimum ecological subsistence, and even a possible right on having a future.

I. Introduction

The increased importance of environment and climate protection at the European level can be examined by looking at the Communication of the European Commission on the European Green Deal, which was presented in December 2019.¹ The Plan exhibits the measures that the European Commission

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¹ European Commission Communication of 11 December 2019, *The European Green Deal*, [2019]

aims at taking in the forthcoming years and sets out a roadmap for their adoption.² At the heart of the Communication, the ambitious climate protection is listed as a priority. The European Commission wants to propose a climate law that sets a target for 2030 of a greenhouse gas reduction of at least 50% (if possible even 55%) and greenhouse gas neutrality by 2050.³ In order to facilitate the decision-making process, qualified majority could be considered instead of unanimity, within the ordinary legislative procedure. For this purpose, the so-called *passerelle clause* can make it possible to adopt decisions with a qualified majority if this procedure has previously been decided unanimously.

A CO₂ border compensation system is proposed for specific sectors in order to reduce the risk of relocation of economic activities and emissions in foreign countries (ie carbon leaks). The European Green Deal is seen as a growth strategy through which the EU is to become a fair and prosperous society with a modern, resource-efficient and competitive economy. The Deal underlines that such growth is necessary for the future of Europe. After setting the main focus on economic development in the long run, the 2030 Agenda for Sustainable Development, which entered into force in 2016, shifts the focus on an ambitious and global transformation program. In particular, the implementation of the 17 Sustainable Development Goals (SDGs) contained therein aims to anchor and implement these goals at European level. The European Commission has expressed that the EU intends to implement the 2030 Agenda and the SDGs together with the Member States in the respects of the subsidiarity principle.⁴

The Reflection Paper of the European Commission 'Towards a Sustainable Europe by 2030'⁵ stresses the need for a stronger commitment to greater sustainability and envisages good conditions for the EU to take on a pioneering role in the implementation of the SDGs.

Moreover, the German Federal Constitutional court partially supported a right on having a future, particularly considering next generations. There are several ways to safeguard and enforce such principle, economical, scientific, and still legislative. Strengthening CO₂ pricing is of enormous importance. Tax and subsidy policies urgently need to be ecologically oriented especially in the areas of electric energy, heating and transport should be consistently aligned with the CO₂ content of the energy sources. In addition, environmentally harmful subsidies, such as tax advantages for diesel or air transport, must be dismantled quickly.

COM/2019/640 final.

² European Commission Communication, COM/2019/640.

³ *ibid* 5.

⁴ Commission Staff Working Document of the 22 November 2016, 'Key European action supporting the 2030 Agenda and the Sustainable Development Goals Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions. Next Steps for a sustainable Europe future: European Union action for sustainability' [2016], SWD/2016/0390 final.

⁵ European Commission, *Towards a sustainable Europe by 2030. Reflection paper*, [2019], COM/2019/22, available at <https://ec.europa.eu/info/>.

Making financial systems sustainable should be a priority. A central concern of politics must be to align financial systems with ecological sustainability. This includes public and private investments: In order to lead sustainable investments out of their current niche, the instruments for a broad application should be designed and the overall market should always be addressed. German State should also use its direct influence and make public procurement as well as investments and plants environmentally friendly.

Another proposal in Germany concerns the possibility to establish the Council for Intergenerational Justice. In order to give young and future generations a voice in the political system, during the election periods, as well as party democracy, it is necessary to examine how the long-term responsibility of the state can be better institutionalized, via this Council. Ideally, this Council is a constitutionally anchored legitimized institution, thus, appearing as a 'heavyweight' of the political scene but politically neutral. Its members, who are expected to compound expertise in the areas of sustainable environmental, social and economic policies, shall be independent. Half of them could be elected by the Bundestag and half by the Federal Council (on the proposal of the state parliaments) for twelve years without the possibility of re-election.⁶

II. New Initiatives at Multiple Levels

1. European Initiatives

In December 2019, the European Commission presented the European Green Deal, which identifies the EU's climate neutrality by 2050 as fundamental goal. This measure is expected to be accompanied by a change in the EU's climate targets for 2030.⁷

In October 2020, the European Parliament (EP) voted in favour of extending the emission reduction targets. By 2030, emissions are expected to fall by 60% compared to 1990, and, previously, the target was 40%. The Green Deal⁸ includes proposals for measures to reduce emissions in various areas such as agriculture, mobility, building renovation, sustainable financing, energy systems or research and development.⁹

An action plan has laid out the e-work on corresponding strategies and legislative proposals by 2021.¹⁰ The key instruments included in the proposal

⁶ Sachverständigenrat für Umweltfragen (SRU), 'Demokratisch reagieren in ökologischen Grenzen- Zur Legitimation für Umweltpolitik', 14 (2019), available at: <https://www.umweltrat.de/>.

⁷ For a better understanding concerning the EU policy framework compare: A.F. Uricchio and F.L. Giambrone, *European finance at the Emergency Test* (Bari: Cacucci Editore, 2020).

⁸ Sachverständigenrat für Umweltfragen (SRU), 'Die Zukunft der Europäischen Umweltpolitik', 465 (2021), available at <https://www.umweltrat.de/>.

⁹ European Commission Communication COM/2019/640.

¹⁰ Sachverständigenrat – Wirtschaft, Klimaschutz als industriepolitische Chance' Corona-krise gemeinsam bewältigen, Resilienz und Wachstum stärken, Paderborn, 2020, 226.

encompass cross-sectoral CO₂ pricing, a CO₂ border compensation system for various sectors, research funding for climate-friendly technologies and a revision of CO₂ emission standards for passenger cars.

In addition, the EU presented two further climate policy-relevant strategies in the summer of 2020. Based on the EU's hydrogen strategy, the use of hydrogen-based technologies has to be strengthened.¹¹ The EU Commission considers relevant the development of the hydrogen technology industry. The strategy aims to set the necessary framework conditions, to initiate global energy partnerships and to create incentives for the production of hydrogen.

At the same time, the EU Commission presented a strategy for an integrated energy system, which is primarily aimed at sector coupling. Besides, the envisaged measures also call on Member States, on the one hand, to reduce the high taxation of electricity compared to other energy sources and, on the other hand, to keep subsidies for fossil fuels. In addition, the Commission announced a proposal, which will be adopted by 2021, to extend the European Emissions Trading System (EU ETS) to sectors not yet covered.¹² In March 2018, the EU Commission published an action plan for a sustained financial system. In its core, the EU Action Plan provides for the draft of a binding framework (EU taxonomy)¹³ that defines uniform criteria for sustainable investments.¹⁴ In addition, various disclosure obligations are provided for financial market participation in connection with sustainable investments and sustainability risks. In July 2020, the Taxonomy Regulation came into force.¹⁵

2. National Initiatives

The political process in Germany culminated in the Climate Protection Programme 2030 in autumn 2019. This catalogue of measures bundles the key points that are intended to ensure the achievement of the Climate Protection Plan 2050.¹⁶ This includes investment funds from the federal government up to 2023 in the amount of 54 billion euros.¹⁷ The implementation of the programme is to be carried out step by step, through laws and funding programmes.¹⁸ A

¹¹ European Commission Communication of 8 July 2020, 'A hydrogen strategy for a climate-neutral Europe', [2020], COM/2020/301 final.

¹² European Commission Communication of 8 July 2020, 'Powering a climate-neutral economy: An EU Strategy for Energy System Integration', [2020], COM/2020/299 final.

¹³ European Commission Communication of 8 March 2018, 'Action Plan: Financing sustainable Growth', [2018], COM/2018/097 final.

¹⁴ European Commission, 'Taxonomy: Final report of the Technical Expert Group on Sustainable Finance' [2020], available at <https://ec.europa.eu/info/>; European Commission, COM/2020/299 final.

¹⁵ Sachverständigenrat – Wirtschaft, n 10 above, 226.

¹⁶ Bundesministerium für Umwelt (BMU), 'Klimaschutzprogramm 2030 zur Umsetzung des Klimaschutzplans 2050', Oktober (2019), available at <https://www.bundesregierung.de>.

¹⁷ BMF (2019), *Finanzierung des Klimaschutzprogramms auf dem Weg*, Bundesministerium der Finanzen, Berlin, <https://tinyurl.com/5n8tx7rj> (last visited 30 June 2022).

¹⁸ E. Pöttker, *Klimahaftungsrecht. Die Haftung für die Emission von Treibhausgasen in*

cornerstone of this project is the Federal Climate Protection Act (KSG), which defines the emission reduction targets.

The KSG stipulates that Germany will reduce its greenhouse gas emissions by at least 55% by 2030 compared to 1990 (para 3.1). In the long term, the Federal Government is pursuing the goal of greenhouse gas neutrality at national level by 2050 (para 1 KSG).

The KSG also sets sector-specific targets for 2030 and focuses on a continuous review of the climate targets with clear responsibilities for the individual sectors, and mandatory adaptation measures, should the trajectory deviate from. The Fuel Emissions Trading Act (BEHG) is meant to establish a national emissions trading system in the non-EU ETS heating and transport sectors from 2021.

Within the framework of the National Emissions Trading System (NEHS), emission certificates are initially issued without a quantity limit at an annually increasing fixed price. In the Conciliation Committee, the Federal Government and the Länder agreed to set the CO₂ price at an initial level of 25 euros per ton of CO₂ from January 2021.

After that, the price will gradually rise to 55 euros in 2025. In 2026, the fixed-price system is to be converted into a market system within a ‘corridor’, a minimum and maximum price of 55 euros and 65 euros.

An *ad interim* assessment is planned for 2025. Then, it will be decided whether maximum and minimum prices for the period from 2027 will continue to be considered reasonable and necessary. From 2027, an annual quantitative limit on the available allowances is to be set.¹⁹

According to the Climate Protection Programme 2030, a gradual reduction of the EEG surcharge as social compensation will counter-finance parts of the revenues from the national emissions trading system. Depending on the actual revenues of the Fuel Emissions Trading Act (BEHG), this redistribution is likely to vary every year.²⁰ In 2020, the EEG surcharge was around 6.76 cents per kWh.

Despite the use of BEHG revenues to reduce the EEG surcharge, the economic slump caused by the global pandemic would have led to a sharp increase in the EEG surcharge in 2021: due to the economic situation, electricity demand in Germany fell, so did the price of electricity on the stock exchange. This leads, quite obviously, to increased payment obligations for feed-in tariffs and thus to a higher EEG surcharge next year.²¹ In order to limit the additional burden on households and companies and to create planning security for the coming years, the Economic Package of June 2020 set the amount of the EEG

Deutschland und den Vereinigten Staaten von Amerika (Tübingen: Mohr Siebeck, 2014); R. Ismer, *Klimaschutz als Rechtsproblem. Steuerung durch Preisinstrumente vor dem Hintergrund einer parallelen Evolution von Klimaschutzregimes verschiedener Staaten* (Tübingen: Mohr Siebeck, 2014).

¹⁹ Sachverständigenrat – Wirtschaft, n 15 above, 228.

²⁰ Bundesministerium für Umwelt (BMU), n 16 above.

²¹ European Parliament, *Climate Change and Migration, Legal and Policy Challenges and Responses to Environmentally Induced Migration*, 2020.

surcharge for 2021 at 6.5 cents per kWh and at 6.0 cents per kWh for 2022.²² The necessary federal subsidy is partly covered by the revenues from the BEHG, which should be used to reduce the EEG surcharge.

In addition to national emissions trading, the Climate Protection Programme provides for further sector-specific measures. Some of these have already been implemented (increase in air traffic tax, tax incentives for the renovation of buildings, reduction of VAT on train tickets in long-distance transport). A supplement to the housing allowance from 2021, which is intended to limit the burden of national emissions trading, and the Charging Infrastructure Master Plan, which aims at the faster electrification of the transport sector (Federal Government, 2020), have also been finalized. In addition to direct financial support for public and private charging stations for electric vehicles and filling stations for vehicles with fuel cells, the concept provides for various legislative initiatives to accelerate the expansion of the charging infrastructure.

By adopting the national hydrogen strategy, which was presented in the summer of 2020, the Federal Government is strengthening its ambitions to enforce the production, import, transport and application of climate-neutral hydrogen and synthetic energy carriers based on it in Germany. On the one hand, this measure should make it possible to fully de-fossilize the heavy industry, the transport and heating sectors. On the other hand, the Federal Ministry for Economic Affairs and Energy²³ open new market perspectives and 'horizons' for German companies.

This strategy considers various instruments to accelerate the establishment of a hydrogen market. The hydrogen strategy was integrated into the economic incentive to limit the consequences of the global pandemic, as an integral part of the Future Aid Package. The financial requirements there are estimated at around 9 billion euros (Coalition Committee, 2020). The economic incentive plan adopted in the summer 2020 provides for further measures relevant to climate policy. In addition, fleet exchange programs are to be launched and investments in the automotive industry are to be stimulated.²⁴

3. Constitutional Complaints Against the Climate Protection Act

The First Senate of the Constitutional Court found the incompatibility of the Climate Protection Act of 12 December 2019 to German Constitution due to the missing requirements for reducing emissions by 2031. On the one hand, the obligation imposed on the Federal State to reduce greenhouse gas emissions results from the Climate Protection Act (paras 3 sec. 1 and 4 sec. 1 sentence 3 of

²² Bundesministerium für Wirtschaft und Energie (BMWi), 'EEG-Umlage 2021: Fakten & Hintergründe', available at <https://www.bmwi.de>, Oktober 2020.

²³ Bundesministerium für Wirtschaft und Energie (BMWi), 'Die Nationale Wasserstoffstrategie', available at <https://www.bmwi.de/>, June 2020.

²⁴ EU Commission, A Hydrogen Strategy for a Climate-Neutral Europe, Brussels, 8.7.2020 COM(2020)301 final.

the Climate Protection Act in conjunction with Annex 2).

On the other hand, these restrictions come from Art 20a of the German Basic Law.²⁵ According to the latter, the average temperature shall be lowered to 1.5°. The reduction path of the relevant greenhouse gas emissions, which is not predetermined after 2031, is problematic. These efforts are the result of the Paris Agreement which aims to reduce the rise of the average temperature.

The plaintiffs point out that: ‘the State had not made sufficient provisions for the imminent reduction of greenhouse gases, in particular carbon dioxide (CO₂), by paras 3.1 and 4.1 sentence 3 of the Climate Protection Act in conjunction with Annex 2, but which were necessary to halt the warming of the earth at 1.5° C or at least at well below 2° C. This is necessary because a temperature increase of more than 1.5° C would put millions of human lives at stake and the crossing of tipping points with unforeseeable consequences for the climate system. About the future burden of emission reduction obligations for periods after 2030, which the complainants describe as ‘emergency braking’, the complainants generally invoke civil liberties.²⁶ They state the fact that, based on Art 2.1 of the Basic Law in conjunction with Arts 19.3 and 20a, the State did not take any appropriate measures to limit climate change in the light of Art 37 of the European Charter of Fundamental Rights and consequently disregarded EU law requirements serving the protection of the environment. The German Constitutional Court dismissed this argument.

The protection of life and physical integrity under Art 2 sec. 2 sentence 1 GG provides and includes protection against impairments caused by environmental pollution, regardless of whom and by what circumstances could be emanated. The State’s duty to protect under Art 2 sec. 2 sentence 1 GG also includes the obligation to protect life and health from the dangers of climate change, such as climate-related extreme weather events such as heat, waves, forest and wildfires, hurricanes, heavy rain, floods, avalanches, or landslides. It may also establish an obligation to protect future generations.

However, the Court did not recognise that the state had not violated the fundamental rights of the plaintiff living in Bangladesh and Nepal. Still, the Constitutional Court partially upheld the case to the extent that:

‘fundamental rights are violated by the fact that the emission quantities permitted under paras 3 sec. 1 sentence 2 and 4 sec. 1 sentence 3 of the Climate Protection Act in conjunction with Annex 2 until 2030 significantly

²⁵ G. Wagner, ‘Klimaschutz durch Gerichte’, *Neue Juristische Wochenschrift*, 74, 2256-2263 (2021); S. Muckel, ‘Pflicht des Gesetzgebers zu effektivem Klimaschutz’ *JA Juristische Arbeitsblätter*, 610 (2021); K. Rath and M. Benner, ‘Ein Grundrecht auf Generationengerechtigkeit?: Die Relevanz des Klimaschutz-Beschlusses des Bundesverfassungsgerichts für andere Rechtsgebiete mit intergenerationaler Bedeutung’, available at <https://tinyurl.com/22wua4rm> (last visited 30 June 2022).

²⁶ Pressemitteilung Nr. 31/2021 vom 29. April 2021 - Beschluss vom 24. März 2021 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20.

reduce the emission possibilities still remaining after 2030 and thus virtually any freedom protected by fundamental rights is endangered. As an intertemporal guarantee of freedom, the fundamental rights protect the complainants from a comprehensive threat to freedom by unilaterally shifting the greenhouse gas reduction burden imposed by Art 20a of the Basic Law into the future. The legislator should have taken precautions to ensure a freedom-friendly transition to climate neutrality, which has so far been lacking’.

The BVerfG took the opportunity to make very detailed and fundamental statements on Art 20a GG. The Court of First Instance found a violation of fundamental rights looking at the principle of proportionality. The Court underlined:

‘It follows from the requirement of proportionality that not one generation may be allowed to consume large parts of the CO₂ budget under a comparatively mild reduction load, if at the same time a radical reduction burden – described by the complainants as ‘emergency braking’ – would be left to the following generations and their lives would be exposed to serious losses of freedom’.

In this case, it is not possible to recognise an examination based on usual criteria like constitutional objective, suitability, necessity, proportionality

The Court decided that paras 3 I 2 and 4 I of the Climate Protection Act in conjunction with Annex 2 are: ‘unconstitutional insofar as they justify the currently insufficiently contained risk of future violations of fundamental rights’.²⁷ Above all, the following postulates, based on Art 20 a GG, were decisive:

‘On the one hand, it is constitutionally indispensable that further reduction measures are determined in good time beyond the year 2030 and at the same time sufficiently far into the future...On the other hand, further annual emission quantities and reduction measures must be defined in a differentiated manner in such a way that a sufficiently concrete orientation is created’.²⁸

In substance, the BVerfG thus underlined the inadequate certainty of the statutory regulation, also observing that the para 4 VI climate protection law does not meet the requirements of Art 80 I 2 GG due to the interference with essential areas of fundamental rights. The BVerfG probably did not resort to requirements of intergenerational.

In this respect, it is worth mentioning some key considerations of the Senate

²⁷ Pressemitteilung Nr. 31/2021 vom 29. April 2021 - Beschluss vom 24. März 2021 1 BvR 2656/18, 1 BvR 96/20, 1 BvR 78/20, 1 BvR 288/20, 1 BvR 96/20, 1 BvR 78/20.

²⁸ *ibid*

since the constitutional complaints were partly successful.²⁹ At the same time, courts in Germany and the EU are increasingly dealing with so-called climate lawsuits, as the executive and legislative authorities in Germany and at the level of the EU have not progressed coherently and efficiently enough yet. At the same time, according to the findings of earth system sciences, time is pushing beyond the ‘planetary borders’.³⁰

In the context of climate lawsuits at the German and European level, well-known difficulties of individual lawsuits in environmental law are becoming apparent. Therefore, it is not surprising that well-known solutions are experiencing a renaissance towards a fundamental right to environmental protection.

a) Fundamental Right to Environmental Protection

The proposed fundamental right to environmental protection is going to be incorporated into the many Constitutions of EU State members and still into Charter of Fundamental Rights of the EU. Since Art 37 already contains a ‘right’ under the title ‘environmental protection’, Schirach’s proposal can only be about supplementing the standard or replacing its content. There is much to be said for an understanding of the proposal in the sense of replacement, since, on closer inspection, Art 37 of the GrCh turns out to be an EU objective corresponding to the provisions of Arts 11 and 191 TFEU, which cannot confer any rights on citizens of the Union.

The Convention on Fundamental Rights introduced in 1999 did not focus on a fundamental right to environmental protection, because the European Charter of Fundamental Rights to be drawn up should only contain enforceable fundamental rights that should not promise citizens more than they can also redeem in court. Against this background, it is worth taking a (‘retrospective’) look at the German debate on a fundamental right to environmental protection, which is then to be reflected in the context of international and European law.

b) State of the Debate in German Constitutional Law

The Basic Law does not expressly enshrine any fundamental right to environmental protection as the right to create or maintain a clean and healthy environment. In this regard, proposals and motions for a constitutional amendment were not implemented, especially considering its practicability, but also for political reasons.³¹ However, in practice, despite a lively discussion in the

²⁹ K. Gelinsky, ‘Der Klimaschutz führt ein verfassungsrechtliches Schattendasein’, (2019), available at <https://tinyurl.com/y7uxzjkr> (last visited 30 June 2022).

³⁰ Sachverständigenrats für Umweltfragen (SRU), n 6 above.

³¹ Vgl. etwa Sachs/Murswiek, Art. 20a Rn. 33; Vgl. Umweltprogramm der Bundesregierung von 1971, BT-Drs. 6/2710, S. 9 f.; ferner BT-Drs. 10/990, 11/604, 11/663; dazu der Überblick bei Bock, Umweltschutz im Spiegel von Verfassungsrecht und Verfassungspolitik, 1990, S. 54 ff.; Kloepfer, Zum Grundrecht auf Umweltschutz, 1978, S. 9 f.

literature,³² there were isolated attempts to derive a fundamental right to the environment from the fundamental rights enshrined in the Constitution.

In this context, a decision of the OVG Berlin from *Wall times* is often quoted. This decision is about a (forest) clearing permit for the Oberhavel power plant:³³

‘Where else in the Federal Republic of Germany the green environment begins, it ends in Berlin-West, the Berlin citizen encounters walls and barbed wire. For him, the preservation of nature and recreational areas has a high socio-physical and socio-psychological significance, which also gains a certain legal value from the point of view of burden compensation’.

On this basis, the OVG Berlin justified that ‘any further serious interference’ in natural and recreational areas ‘adversely affects the individual citizen of Berlin-West in his legal interests protected by Art 2 sec. 1 GG in conjunction with para 1 BNatSchG’. In this broad interpretation, Art 2 sec. 1 GG conveys a right of defence of every citizen against such environmental interventions that have a negative effect on the sphere of human existence and thus impair the free development of personality. Similarly, the VG München also affirmed the right of citizens to bring an action with regard to a development plan for a landscape protection area.

This decision was significantly influenced by a provision of the Bavarian Constitution. Art 141.3.1 prohibits the ‘enjoyment of natural beauty and recreation in the great outdoors, in particular the entry into forests and mountain pastures ... permitted to everyone’. However, the BayVGH did not uphold this interpretation, even if it apparently considered a defensive claim against natural and landscape interventions under Art 2 sec. 1 GG to be possible under special circumstances.³⁴ For the BVerwG, however, an appeal to Art 2 sec. 1 GG is not possible in any of the cases. The court observed that the possibility of a broadly defined neighboring action based on Art 2.2 of the Basic Law would be subject to a variety of demarcation and application difficulties. In this context, the BVerwG expressly pointed out that ‘there is no fundamental environmental right’.

Following an extensive discussion in the seventies, the majority of opinion in the literature shared this view. On the one hand, interpretative attempts have tried to derive a general ‘fundamental environmental right’ from existing constitutional law – namely from Arts 1 and 2 sec. 1 and sec. 2 GG as well as the principle of the welfare state.³⁵ On the other hand, corresponding legal and political proposals for a constitutional amendment to such an end have not been

³² Vgl. auch Sachs/Murswiek, Art. 20a Rn. 32.

³³ OVG Berlin, Urt. v. 02.05.1977, II B 2/77, DVBl. 1977, 901 (902), die Entscheidung der Vorinstanz VG Berlin, Urt. v. 14.12.1976, XIH A 419/76 und XIII A 419/76, DVBl. 1977, 353 bestätigend; zurückhaltender BayVGH, Urt. v. 21.02.1986, Vf. 6, 7-VII/85, NVwZ 1986, 633, wonach nur der Wald als solcher, nicht die bestehenden Waldflächen als geschützt angesehen wird; BVerwG NVwZ 2006, 595 Rn. 20; MKS II/Epiney, Art. 20a Rn. 26; Dreier II/Schulze-Fielitz, Art. 20a Rn. 26.

³⁴ Vgl. BVerfGE 127, 293 (328)–Legehennen II; 118, 79 (110)–Emissionshandel.

³⁵ BT-Drs. 12/6000, S. 65f.; Sachs/Murswiek, Art. 20a Rn. 55, Fn. 96.

implemented.³⁶

Having said that, a substantively effective fundamental right to environmental protection can be constructed as an environmentally sound, partial guarantee of an individual fundamental right (for example to life, health, property) in conjunction with the function of fundamental rights as protection obligations recognized in German constitutional law.³⁷

In the foreground of environmentally-related basic legal protection is the right to life and physical integrity protected in Art 2 sec 2 1 GG.³⁸ In principle, impairments to the planet would trigger a state duty to protect the legal interests of life and physical integrity. Art 2 sec 2 s. GG does not only apply if a health disorder is acute or imminent. The right to physical integrity already covers the upstream area of abstract risk. A risk exists if it is not known yet whether an environmental impact will cause an adverse health impact, but if this cannot be ruled out with certainty. Furthermore, environmental changes can also threaten economic freedoms (Arts 12 and 14 GG). For example, privately owned environmental goods such as soils, forests, waters or agricultural land can be damaged by environmental changes affecting their functions.³⁹

The so-called climate lawsuits, which were recently filed before various courts, are also based on fundamental economic rights. Fundamental rights traditionally establish rights of defence against interference with freedom by the state (*status negativus*). However, environmental damages are usually not caused by the state, but by private perpetrators, such as companies or private individuals. The classical defence function of fundamental rights is not applicable to constellations of this kind. However, it is widely recognized that fundamental rights have a protection capacity in addition to defence (*status positivus*).⁴⁰

Environmentally harmful conducts of private individuals who interfere with legal interests protected by fundamental rights can therefore trigger state protection obligations. However, it is important to underline a distinction. On the one hand, not every minor risk can ‘unleash’ a duty to protect. on the other hand, the fundamental rights protection obligations are not, merely, about a matter of pure danger prevention. Depending on the significance of the legal interest to be created, the protection obligations arise based on a certain degree of probability. The greater is the potential risk potential and the ‘weight’ of the threatened legal interest (eg life or health), the lower are the requirements for the probability of

³⁶ Ein instruktiver Überblick der einzelnen Vorschläge findet sich bei *Bock* (Fn. 9), S. 54 ff.; vgl. ferner *Kloepfer* (Fn. 9), S. 31 f.; *Soell*, NuR 1985, 205 f.; ferner *Karpen*, *Zu einem Grundrecht auf Umweltschutz*, in: *Thieme* (Hrsg.), *Umweltschutz im Recht*, 1988, S. 9 (23); zuletzt *Brönneke*, ZUR 1993, 153 ff.

³⁷ MKS II/Epiney, Art. 20a Rn. 89.

³⁸ BVerwGE 54, 211 (220 f.); BVerwG, Urt. v. 29.07.1977, IV C 51/75, DVBl. 1977, 897; so schon zuvor BVerwG, Beschl. v. 25.06.1975, VII B 84/74, DÖV 1975, 605.

³⁹ *Kloepfer*, *Umweltrecht*, 4. Aufl. 2016, § 3 Rn. 72 f.

⁴⁰ *ibid*

harm.⁴¹ Unlike defensive rights, which are directed against a certain conduct of the state, protective obligations cannot, as a rule, be fulfilled by a single specific act. Instead, they focus on action by the state that opens up a variety of options.

Therefore, the duty to protect leaves the state and its political bodies, in particular the law-maker,⁴² a discretion as to how they materially fulfil the duty to protect. However, the aim of this discretionary power always lies on the effective fulfilment of the duty to protect, whereby in any case a constitutional minimum standard of protection of fundamental rights shall be guaranteed.⁴³

Nevertheless, even if widely interpreted, these environmentally protective partial warranties only cover that part of the environment that must be protected as a human livelihood. Species and animal welfare as well as large parts of nature and landscape protection are not covered. However, adverse effects on the environment cannot be reversed in an enforceable manner if they do not directly affect individual legal interests. As a result, according to constitutional law, environmental interventions that do not endanger health or property must be accepted by individuals. As a consequence, this also applies to existing enforcement deficits in environmental law.⁴⁴

c) Regulation of Environmental and Animal Welfare in the Basic Law

Even if environmental protection is omnipresent today, not just due to the global warming issues, it is surprising, at least at first glance, that this topic was only entered into the GG as a state goal in the context of the constitutional reform of 1994. According to the complex wording of Art 20a GG, the state protects the natural foundations of life within the framework of the constitutional order through legislation, the administration and the judiciary, and the law was subsequently expanded in 2002, as to include the protection of animals. This protection also applies to future generations.⁴⁵

This obligation to protect is initially aimed at ensuring that the state itself refrains from interfering with the environment and does not promote private intervention. An effective duty of protection exists to the extent that the state must oppose interference by third parties (for example private) and proactively take measures to preserve and restore the natural environment.⁴⁶ The environment and animals must also be protected in a responsible way considering future generations.

The obligation to protect is an expression of the principle of sustainability, which has a decisive influence on environmental law today. This could also

⁴¹ BVerfG, NVwZ 2010, 702 (703 f.).

⁴² BVerfG-K NVwZ 2007, 808 Rn. 27ff

⁴³ C. Calliess, *Rechtsstaat und Umweltstaat. Zugleich ein Beitrag zur Grundrechtsdogmatik im Rahmen mehrpoliger Verfassung* (Tübingen: Mohr Siebeck, 2001), 448-583.

⁴⁴ *ibid* 317.

⁴⁵ Vgl. GWC/von Coelln, Art. 20a Rn. 19; JP/Jarass, Art. 20a Rn. 12.

⁴⁶ Vgl. etwa Sachs/Murswiek, Art. 20a Rn. 33.

encourage to adopt special protective measures for endangered species, and to consider the effects on flora and fauna, which only develop their harmful effect in the long term.⁴⁷

III. Legal Effects of Art 20a GG

1. Regulatory Mandate to the Legislature

Similar to the principle of the welfare state, Art 20a GG, as a state objective, is also legally binding, but in the sense of an objective legal principle. This principle is primarily addressed as an optimization requirement⁴⁸ mandating the legislature to issue appropriate environmental and animal welfare regulations.⁴⁹

The fact that the legislature has a wide margin of discretion in fulfilling this mandate,⁵⁰ is also evident, inter alia, from the constitutional clause of Art 20a GG, which refers to the foundations of life and animals as protected ‘within the framework of the constitutional order’. The legislature must weigh up the achievement of these objectives with other legal positions and interests of constitutional rank, such as individual freedoms, for example, economic freedoms under Art 12 I GG. This balancing also concerns constitutional values, such as the overall balance pursuant to Art 109 II GG, from which competing goals such as economic growth and the creation and preservation of jobs can be derived.

Since the legislature had already enacted an increasingly dense network of environmental laws since the 1970s, Art 20a GG did not initially provide any special impetus for further legislation when it was introduced into the GG in 1994. However, the legislature – especially in the light of new threats and new scientific findings – must continuously review the existing law and, if necessary, expand and sharpen it.⁵¹

It is also important that important basic principles and core contents of environmental law already established in environmental legislation have been constitutionally sound since the coming into force of Art 20a GG, and can therefore no longer be abolished without further ado.⁵²

2. Interpretation Maxim⁵³

⁴⁷ Vgl. auch Sachs/Murswiek, Art. 20a Rn. 32.

⁴⁸ BVerwG NVwZ 2006, 595 Rn. 20; MKS II/Epiney, Art. 20a Rn. 26; Dreier II/Schulze-Fielitz, Art. 20a Rn. 26

⁴⁹ Vgl. BVerfGE 128, 1 (37)–Gentechnikgesetz; 118, 79 (110)–Emissionshandel; vgl. auch BVerwGNVwZ 2006, 595 Rn. 20.

⁵⁰ Vgl. BVerfGE 127, 293 (328)–Legehennen II; 118, 79 (110)–Emissionshandel.

⁵¹ C. Smekal, ‘Steuerpolitik in Deutschland und Österreich. 2 Nachbarn- verschiedene Wege?’, in V. Ulrich et al, *Effizienz, Qualität und Nachhaltigkeit im Gesundheitswesen* (Baden-Baden: Nomos eLibrary, 2007), 93–113.

⁵² Näher zum gesamtwirtschaftlichen Gleichgewicht unten § 22 Rn. 52.

⁵³ BT-Drs. 12/6000, S. 65f.; Sachs/Murswiek, Art. 20a Rn. 55, Fn. 96

Since the protection mandate under Art 20a GG is primarily addressed to the legislature, the executive and the judiciary cannot implement it 'on their own'.⁵⁴ This also emphasizes the reservation of Art 20a GG, according to which protection by executive and judicial dishes is carried out 'in accordance with the law and the law'. This clarifies that the principles of primacy and reservation of the act under Art 20 III GG also apply to the pursuit of the environmental and animal welfare mandate pursuant to Art 20a GG.

3. Justification of Interference with Fundamental Rights⁵⁵

Art 20a GG, insofar as it is concretized in a simple law that does justice to the reservation of the law, may also serve as a basis for interference with fundamental rights.⁵⁶ In the case of fundamental rights that are subject to an express reservation of the law, it may form the constitutional legal purpose of an interference.

In the case of unconditionally granted fundamental rights such as freedom of religion and conscience pursuant to Art 4 I, IIGG,⁵⁷ freedom of art and freedom of science pursuant to Art 5 III 1 GG⁵⁸, Art. 20a GG also considers itself as a constitutionally immanent barrier to fundamental rights. Once again, it should be observed that Art 20a GG, as a constitutional value among others, does not have per se priority over affected fundamental rights or other constitutional values. Just as Art 20a of the Basic Law may restrict fundamental rights and other constitutional values in a constitutional manner, fundamental rights and other constitutional values may, conversely, affect environmental and animal welfare in accordance with Art 20a of the Basic Law.⁵⁹

In such cases, the decisive factor is to weigh up the different constitutional values as differentiated as possible, which is best carried out in the case examination in the context of the adequacy test (proportionality in the narrower sense). In addition, the importance of the affected constitutional values, for example, also plays a role in how strongly constitutional values are affected in each case.

4. No Subjective Rights

Art 20a GG generally does not give rise to any subjective rights of the individual vis-à-vis the state.⁶⁰ This basically follows from the fact that the legislature amending the constitution has integrated environmental and animal welfare into the GG – as seen – not as a fundamental right, but as an objective state objective. In contrast to the principle of the welfare state, case law has not yet derived any

⁵⁴ MKS II/Epiney, Art. 20a Rn. 89.

⁵⁵ Zu Vorrang und Vorbehalt des Gesetzes oben §16 Rn. 38ff.

⁵⁶ MKS II/Epiney, Art. 20a Rn. 91f.; GWC/von Coelln, Art. 20a Rn. 10.

⁵⁷ BVerfG-KNVwZ 2007, 808 Rn. 27ff.

⁵⁸ BVerfGE 128, 1 (41f.) – Gentechnikgesetz.

⁵⁹ Dazu etwa GWC/von Coelln, Art. 20a Rn. 11; JP/Jarass, Art. 20a Rn. 17.

⁶⁰ BVerwG NVwZ 2007, 833 Rn. 60; BVerwG NVwZ 1998, 398 (399).

subjective, enforceable rights from Art 20a GG, even in conjunction with fundamental rights and other constitutional values.⁶¹

IV. Strengthening the Market-Oriented Mechanisms

The core part of this chapter can be summarized as follows: the ambitious European climate goals involve considerable investments, which have to be evaluated and kept in mind. A leading instrument in the field of climate and energy policy can be narrowed down and encompasses the cross-sectorial pricing of CO₂, which embodies the tool to provide a satisfactory coordination of the transformation and the mobilization of private sector capitals with regard to a lower emission economy.

As a matter of fact this comprises additionally to the pricing of CO₂, the diminution of existing distorting levies and levies on energy prices. As mentioned from the Council if the German Experts: ‘Strengthening market-oriented instruments and abolishing direct and indirect subsidies for fossil fuels ensures reliable policy guidelines and reduces risks for investors. This reduces the need for small-scale climate policy support measures. Finally, suitable framework conditions can provide incentives for domestic companies to engage proactively in standardization processes and thus secure and expand their international competitiveness. A corresponding restructuring of the framework conditions is accompanied by reduced and additional revenues as well as reduced expenditure by the state. If all possibilities are consistently used to compensate for the loss of revenue from lost taxes, important reform steps are possible without negative effects on the state budget. In the medium term, German climate policy must increasingly be embedded in the European context in order to further strengthen the coordination function of markets. In addition, the Europe-wide uniform labelling of economic activities with regard to their sustainability can reduce asymmetric information on the capital markets, which can stand in the way of green investments. In addition, measures can be discussed that would be suitable to secure the competitiveness of European companies in the future in the event of rising CO₂ prices.

In the future, the product-specific CO₂ footprint will play a central role in the attractiveness of new technologies. If the climate-relevant properties of goods and services are recorded in a transparent, traceable and legally secure manner, companies could make the climate-relevant advantages of their production processes known’.⁶²

⁶¹ Vgl. etwa BVerfGE 128, 1 (38, 61f.)–Gentechnikgesetz; Dreier II/Schulze-Fielitz, Art. 20a Rn. 87; MKS II/Epiney, Art. 20a Rn. 91; kritisch jedenfalls bzgl. eines Mehrwertes von Art. 20a GG insoweit entgegen Sachs/Murswiek, Art. 20a Rn. 72a; zum Erfordernis eines verfassungslegitimen Zwecks oben §16 Rn. 79ff.

⁶² Deutscher Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung,

1. Effect of the Targeted CO₂ Price Paths

The price path laid down in the national emissions trading scheme sends a credible and binding signal and provides investors and households with certainty of planning. The predictable increase in the CO₂ price enables households and companies to adapt to rising costs. With the transfer to a market system with a price corridor, the risk of a sharp price increase and burden on companies and households by a maximum price is limited. A minimum price, in turn, ensures that households with long investment cycles can already plan their investments in lower-emission technologies.⁶³

The planning security resulting from a fixed price path or a narrow price corridor does not exist in the EU ETS. However, companies subject to certificates can use futures market contracts to hedge their presumably required energy quantities at an early stage in terms of price. This enables stakeholders to reduce uncertainty about the price path and plan their investments accordingly. The extent to which the demand for energy sources and the associated CO₂ emissions react to the price changes induced by the national emissions trading system depends on the price elasticities in the heating and transport sectors.

On this basis, based on Bach et al,⁶⁴ it is possible to calculate how the price path in the national emissions trading system could affect emissions in the transport and heating sector. The assumption is made, that companies can re-allocate the costs of the CO₂ price completely to households. However, substitution and evasive reactions between different energy sources cannot be ignored.

The quantitative statements are also fraught with uncertainty. Various studies distinguish between short- and long-term own price elasticities for households as well as for trade, commerce and service providers (GHD). However, the boundaries are not clear-cut. While short-term price elasticities relate to directly implementable demand responses, long-term price elasticities may reflect investments in durable goods, such as the purchase of vehicles, heating systems or, in the case of companies, production processes. In the short term, lower demand reactions are to be expected than in the long term. This results in a range of possible emission savings.

While in the household sector large parts of the savings could already be possible without a change in equipment, in the transport sector only the long-term elasticities associated with a change in equipment lead to significant emission savings.⁶⁵ Without appropriate accompanying measures for redistribution,

Klimaschutz als Industriepolitische Chance.

⁶³ O. Edenhofer et al, 'Assessment of the German climate package and next steps: carbon pricing, social balance, Europe, monitoring' *Mercator Research Institute on Global Commons and Climate Change (MCC)*, October 2019, available at: <https://www.mcc-berlin.net/> Scientific Advisory Board at the BMWi, 2019a; SG 2019 paras 141 et seq.

⁶⁴ S. Bach et al, 'Für eine sozialverträgliche CO₂-Bepreisung', Deutsches Institut für Wirtschaftsforschung of Berlin (DIW) Politikberatung kompakt, Berlin, 2019.

⁶⁵ Sachverständigenrat – Wirtschaft, n 19 above, 232.

a CO₂ price has a regressive effect.⁶⁶ A CO₂ price that would ensure the achievement of targets in 2030 is therefore relevant for distribution policy.⁶⁷ Even if this were addressed by appropriate redistribution, risk and loss aversion, for example, could lead to consumers being skeptical about CO₂ pricing.⁶⁸ Companies may be concerned about maintaining international competitiveness. These difficulties have to be faced.

2. Green Finance

The transformation towards a lower-emission economy will require significant private and public investment. The financial sector will play an important role in financing global investment needs in the context of international climate policy and in directing capital flows towards sustainable investments. The decisive incentive for private investment is based on the return prospects. These are influenced in different ways by the effects of climate change and climate policy decisions such as the introduction of CO₂ pricing. In addition, there may be information asymmetries that act as a hurdle for the sufficient mobilization of capital in sustainable projects, as they can stand in the way of the correct pricing of risks.⁶⁹

The supply and demand for sustainable financial assets have increased significantly in recent years. Green bonds are financial instruments, whose proceeds are earmarked for the implementation of environmental and climate protection projects. They can be placed by states or by companies. In the case of states in particular, however, it is unclear how the purpose can be ensured.⁷⁰ Although they do not necessarily generate an excess return compared to conventional forms of investment,⁷¹ the new issues are often oversubscribed several times. Nevertheless, green bonds have so far been a niche product in the global bond market. The largest share of new issues in 2019 came from Europe. Germany's largest issuer of green bonds is KfW Group. In September 2020,

⁶⁶ M. Preuss et al, 'Verteilungswirkung einer CO₂-Bepreisung in Deutschland', 2019, available at: <https://www.sachverstaendigenrat-wirtschaft.de/>.

⁶⁷ SG 2019 Ziffern 220 ff.

⁶⁸ J. Stiglitz, 'Addressing climate change through price and non-price interventions' *European Economic Review*, 594–612 (2019).

⁶⁹ C. Smekal and E. Theurl, 'Finanzkraft und Finanzbedarf von Gebietskörperschaften', *Analysen und Vorschläge zum Gemeindefinanzausgleich in Österreich* (Wien - Cologne: Böhlau Verlag, 1990), 34; C. Smekal, 'Operationalisierung eines intragovernmentalen Transferbegriffs für den Finanzausgleich und Quantifizierung alternativer Nettotransfersalden', in E. Matzner ed, *Öffentliche Aufgaben und Finanzausgleich* (Wien: Wirtschaftsverlag Orac, 1977), 410- 438; S. Batten et al, 'Let's talk about the weather: The impact of climate change on central banks' *Bank of England Working Paper*, no 603, available at: <https://www.bankofengland.co.uk/>.

⁷⁰ L. Liebich et al, 'Current developments in green finance' *Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung Working Paper*, no 5, available at <https://www.sachverstaendigenrat-wirtschaft.de/>.

⁷¹ G. Ibikunle and T. Steffen, 'European green mutual fund performance: A comparative analysis with their conventional and black peers' 145 *Journal of Business Ethics*, 2, 337–355 (2017).

Germany placed a green federal bond with a total volume of EUR 6.5 billion for the first time (German Finance Agency, 2020). When it comes to the use of funds from green bonds, the energy sector dominates in Germany with a share of 62%.⁷² About 28% of the funds go to the building sector. Only a small part of the funds in Germany is invested in the transport sector (6.6%).

In July 2020, the EU taxonomy⁷³ entered into force as a classification system for sustainable investments. The European Commission's Action Plan for a Sustainable Financial System envisages that in future standard and labels for green financial products will be based on the taxonomy. The aim is to protect the integrity of the sustainable financial market and to reduce information asymmetries, which should make it easier for investors to access these products.

The EU Taxonomy Regulation divides economic activities into three categories and in future will define in a single way throughout Europe which economic activities meet sustainability requirements. In principle, issuers should disclose the extent to which all financial products meet the requirements of the taxonomy. As a result, issuers will in future also have to indicate whether products that they have not declared as sustainable are sustainable or not in the sense of the taxonomy.

Economic activity defined as sustainable in the sense of the taxonomy should contribute significantly to at least one of the six environmental objectives defined in the taxonomy and at the same time not significantly affect any of the objectives. For the clear certification of economic activities that are directly conducive to achieving the central climate policy goal of the EU and its member states, the reduction of CO₂ emissions, taxonomic in its design is therefore only conditionally suitable.

On the basis of the taxonomy, the refinancing costs for companies could potentially increase if, for example, the demand for green investments is higher due to an expectation of stricter climate protection requirements. This, in turn, could strengthen incentives for companies to make their processes or business model more sustainable.

According to García et al,⁷⁴ German companies are not yet sufficiently prepared for the response. Detailed decisions on the implementation of the EU taxonomy will only be adopted successively, so that the framework is not expected to be fully operational until 2022.⁷⁵ In addition, the Action Plan for a Sustainable Financial System provides for various disclosure requirements for financial market participants in connection with sustainable investments and sustainability risks. The relevant information is to be considered essential for the correct pricing of climate risks, in particular by rating agencies.⁷⁶

⁷² L. Liebich et al, n 70 above.

⁷³ European Commission, COM/2020/299 final.

⁷⁴ B. García et al, *European Sustainable Finance Survey 2020* (Berlin: Adelphi, 2020).

⁷⁵ European Commission, n 14 above.

⁷⁶ Liebich et al, n 70 above.

3. Border Adjustment

The EU ETS prices CO₂ emissions from production in European industrial sites. For example, power plant operators and chemical companies must purchase certificates for the CO₂ emissions that are required in their plants.⁷⁷ This production-side approach to CO₂ pricing increases the costs of European industrial companies relative to foreign companies not affected by the EU ETS. Especially in emission-intensive industries whose products are traded globally, this loss of competitiveness could lead to a shift in production and thus of emissions outside the EU ETS coverage (carbon leakage).

At an aggregated level, carbon leakage can be estimated by the different development of territorial CO₂ emissions and footprint. The CO₂ footprint of the EU ETS contributes to the emissions that occur in the production of goods consumed within the scope of the EU ETS along the entire value chain. The territorial emissions include the CO₂ emitted by production processes on the territory of the EU ETS countries. The difference between the two measures is called net CO₂ import.

Overall, the states of the EU ETS have always had positive net CO₂ imports.⁷⁸ While emissions within the scope of the EU ETS have steadily decreased since its introduction in 2005, net CO₂ imports have not fallen. This could be used as an indication of carbon leakage. However, during the same period, the CO₂ intensity of imports has fallen in line with the CO₂ intensity of industry in the EU ETS. The constant NET CO₂ imports are therefore mainly due to increased trade volumes. Regardless of the introduction of the EU ETS, the increase in trade volumes is likely to be linked to trade policy changes such as China's accession to the WTO in 2002.⁷⁹

Based on an econometric analysis at the industrial level, the German Council of Economic Experts shows that CO₂ imports from countries without an emissions trading system to countries with an emissions trading system are 3% higher than between countries with the same systems. The analogous analysis for value added imports shows that they are falling by 6%. The lower value-added imports could be an indication that the carbon leakage protection currently implemented in the EU ETS through the free allocation of allowances to emission-intensive and international- In the first place, it has been possible to function in the first place.

In order to prevent carbon leakage, the political process for the elaboration of a CO₂ border compensation was initiated in the summer of 2020 on the initiative of the German and French governments.⁸⁰ It is also listed in the European Council agreement of July 2020 as a possible future source of revenue

⁷⁷ World Bank, 'State and trends of carbon pricing 2020' *World Bank*, Washington, DC, (2020).

⁷⁸ Sachverständigenrat – Wirtschaft, n 65 above, 251.

⁷⁹ *ibid* 251.

⁸⁰ European Commission, *Reflection paper of 31 may 2017 on the deepening of the economic and monetary union*, 2017, COM/2017/291 final, available at <https://ec.europa.eu/>.

for the EU budget. In the case of a border adjustment, importers would have to purchase a number of certificates corresponding to the CO₂ footprint of the imported goods. Exporters would receive a quantity corresponding to the CO₂ footprint of the exported goods.⁸¹ If the CO₂ footprint of all goods could be accurately measured, this mechanism would represent a transition from production-side pricing to consumption-based pricing of the carbon footprint of goods consumed within the scope of the EU ETS.

Similar to VAT, such a mechanism would avoid distortions of competition between producers in the EU ETS and those outside the EU ETS. A transition to consumption-based pricing could also be achieved by taxing the CO₂ footprint of all goods while expanding the free allocation of allowances. If tax rates and allocation quantities are chosen correctly, this represents a theoretically equivalent alternative to CO₂ limit compensation.⁸²

Yet, the transition to consumption-side pricing is fraught with problems in the case of CO₂ border compensation and, in the case of taxation of the CO₂ footprint, with subsidizing domestic producers. For both measures, measuring the CO₂ footprint of individual goods is a major challenge, as the entire CO₂ emissions generated in the value chain of the good must be taken into account. The use of benchmarks is also problematic according to the European Commission.⁸³ For example, the benchmarks used for the current production-side compensation mechanism of free allocation cannot be used for most of the products. These only measure the direct CO₂ emissions generated during production, which can differ greatly from the CO₂ footprint of the products. In addition, a full border adjustment is associated with an extensive bureaucratic effort.

Against this background, in the event that border adjustment were considered in the future, the restriction to emission-and-trade-intensive industries would be preferable.

In addition, there are further action-specific challenges. The taxation of the CO₂ footprint would require the introduction of an EU-wide or a European harmonized tax. In addition, the tax would have to be adjusted regularly in order to be consistent with the reduction in the amount of allowances.⁸⁴

The introduction and any adjustment of such a tax would require a unanimous decision by all Member States.⁸⁵ According to media, as the introduction of a general border adjustment in correlation with the Destination Based Cash Flow

⁸¹ European Environmental Bureau (EEB), 'Re- action to the European Commission's report on the Circular Economy', 2019, available at <https://eeb.org/>.

⁸² C. Böhringer et al, 'Robust policies to mitigate carbon leakage' 149 *Journal of Public Economics*, 35-46 (2017).

⁸³ European Commission, n 5 above.

⁸⁴ With regard of specific aspects concerning the developments in italian tax law was a challenge to the new european development process: A.F. Uricchio and F.L. Giambrone, *Entwicklungen im italienischen Steuerrecht als Herausforderung des neuen europäischen Entwicklungsprozesses* (Bari: Cacucci Editore, 2020).

⁸⁵ Sachverständigenrat – wirtschaft, n 79 above, 251.

Tax was discussed in the USA in 2017, the EU and other trading partners had already prepared a lawsuit before the WTO,⁸⁶ according to media reports.⁸⁷ For Germany as an export-oriented country, a trade conflict, especially with the USA as an important export country, can lead to an important loss of added value.

As the German Council of Economic Experts suggests:

‘the risk of loss of value added due to trade barriers must be weighed against the risk of loss of added value due to carbon leakage. The risk of trade conflicts can be traced back on the design of the mechanisms and on global political developments. While the risk of trade policy countermeasures is likely to be high in the event of unilateral action on the part of the EU, this could be decreased by a coordinated multilateral approach in cooperation with important trading partners. Many countries worldwide, including China, Japan, Canada, Mexico and the Republic of Korea, as well as some US states, have already established or initiated the implementation of a CO₂ price, albeit at a lower level than the EU ETS.⁸⁸ Provided that the most important trading partners agree to a common approach and that emission prices already paid to each other in the country of origin are credited, the idea of a climate club could be realized with the help of coordinated border compensation systems,⁸⁹ which enables progress towards global issue pricing. The revenues generated by the CO₂ border compensation could be employed as transfer payments for emerging countries to join the climate club on the one hand and to facilitate their transformation to climate neutrality on the other’.⁹⁰

V. Conclusions

In order to enable climate-neutral business to operate in the long term in both Europe and the whole planet, the use of technologies that allow the use of renewable energy in all sectors is a necessary requirement.

This scenario certainly results in opportunities. The demand for climate-friendly products, production processes and infrastructures is likely to increase.⁹¹

This offers German companies a wide range of opportunities to reach out to

⁸⁶ A. Guterres, ‘Remarks to the opening of the Ministerial Segment of the High-Level Political Forum on Sustainable Development’, 2021, available at <https://tinyurl.com/477zzmvr> (last visited 30 June 2022).

⁸⁷ S. Donnan et al, ‘EU and others gear up for WTO challenge to US border tax’ *Financial Times*, available at <https://tinyurl.com/ynahx535> (last visited 30 June 2022).

⁸⁸ World Bank, n 77 above.

⁸⁹ W. Nordhaus, ‘Climate clubs: Overcoming free-riding in international climate policy’ 105 *American Economic Review*, 4, 1339-1370 (2015).

⁹⁰ Sachverständigenrat – wirtschaft, n 85 above, 251.

⁹¹ A. Papantoniou, ‘Intergenerational Equity in Times of Climate Change Legal Action. Moving towards a Greater Protection of Human Health?’ in S. Negri ed, *Environmental Health in International and EU Law. Current Challenges and Legal Responses* (London: Routledge, 2019), 398.

new markets and strengthen their future competitiveness.

The German government should use targeted measures to pave the way for companies to seize the opportunities. The measures should focus on the consistent pricing of CO₂ while at the same time abolishing state-induced distorting levies and levies in energy pricing.

The integration of national emissions trading in all sectors into the EU ETS and the establishment of cross-sectoral emissions trading in Europe should continue to be the guiding objective of the policy.⁹² Until this is fully achieved, an energy price reform can strengthen the incentives for sector coupling in Germany.

The EEG surcharge for companies and households could be completely abolished and the electricity tax reduced to the European minimum tax rate. In essence, this would reduce the financial burden on households through national emissions trading. Ultimately, new technologies would become more attractive and markets would thrive.

It is also true that, by beefing up climate-friendly technologies and products, a more attractive market of the environment can make small-scale, discretionary interventions superfluous in many areas and thus save costs.

To manage the transformation, large-scale private sector investment is required instead. Today's expectations about the future development of climate-neutral⁹³ products and applications can mobilize private capital and real economic investments, provided that the climate-relevant characteristics of economic activity are transparent and traceable.

Clearly, the certification of sustainable investments as well as of products and processes is an important step towards dissolving obstacles that hinder investment in new companies, innovations or technologies. The growing climate policy ambitions could lead to high CO₂ prices in the future. This brings considerations for a CO₂ limit compensation into focus. A CO₂ border adjustment, which burdens (relieves) imports (exports) according to their respective CO₂ footprint, theoretically seems to be a promising instrument.

However, there are numerous practical and commercial hurdles that should be considered before an introduction. Added to this are the considerable trade policy risks arising from the unilateral introduction of CO₂ border compensation. Border compensation should therefore be carefully weighed up and – if trade policy considerations do not conflict with this – at most considered for products of energy – and export-intensive industries.

Market-oriented mechanisms can have a limited incentive effect due to the interaction of different market imperfections. Therefore, selected complementary measures make sense. In particular, public research funding can make an important contribution to the innovation landscape.

The forward-looking development of skilled workers as well as targeted

⁹² Sachverständigenrat – Wirtschaft, n 90 above, 251.

⁹³ A. Guterres, n 86 above.

further training measures can significantly facilitate the transformation. In order to have the right specialists available in Germany in good time, the right course of action must be set now. In the transport sector, network effects can make it more difficult for households to save emissions.⁹⁴ Switching to an electric vehicle is only attractive for households if there is sufficient re-fueling and charging infrastructure.

Public support for expansion may therefore be appropriate, but it should be used to promote private investment in the first place. Hydrogen technologies are an important building block for achieving climate neutrality in 2050 and at the same time provide opportunities for German industry. In order to mobilize private investment, cross-sectoral CO₂ pricing, energy price reform and progress in certification are necessary. Public funding should also be moderate and address market imperfections such as knowledge externalities, network effects or information asymmetries. A public coordination process should be initiated in order to reach an agreement between politics and business.

A roadmap can help to set goals, identify the need for adaptation to the framework conditions and strengthen investment security for companies. The taxation of the CO₂ footprint would require the application of an EU-wide or a European harmonized tax.⁹⁵ Moreover, the tax should be adjusted regularly in order to be consistent with the reduction in the amount of allowances.

Additionally, environmental protection interests should be taken into account in all environmentally relevant policy areas. Although the principle of environmental integration is already applicable law in the EU as well as in the Federal Republic of Germany, political practice continues to be shaped by departmental thinking. The principle of integration should therefore be based on the Basic Law and more strongly linked to the sustainability strategy.

As already stated in the introduction, the competence related to the environmental law should be ultimately transferred at EU level, through an amendment of the Lisbon Treaty, according to the subsidiarity principle in order to provide a right on having a future with regard of the next generations. If Ferdinand von Schirach's proposal for a fundamental right to environmental protection is to be more than programmatic symbolism in the climate crisis, then the lack of determinability of the content of fundamental rights and thus its judicial enforceability remains an unresolved problem.

For these reasons, a substantively effective fundamental right to environmental protection can therefore only be constructed as an environmentally protective partial guarantee of an individual fundamental right (for example to life, health, property) in conjunction with the recognized function of fundamental rights as

⁹⁴ European Commission, n 83 above.

⁹⁵ For a better understanding of the world's economy: M. Draghi et al, *Transparency, Risk Management and International Financial Fragility* (Geneva: CEPR, 2004).

protective obligations.⁹⁶ However, this right does not cover species and animal welfare as well as large parts of nature and landscape protection. Therefore, this issue also applies to existing enforcement deficits in environmental law.⁹⁷

As Calliess suggests: ‘a fundamental right to the ecological subsistence minimum can be derived from the Basic law’, specifically Art 1 sec. 1 in conjunction with Art 2 sec 2 and Art 20a GG. The BVerfG⁹⁸ has already defined initial approaches to a link between fundamental rights and Art 20a GG by ‘the constitutional evaluations of Art 20 a GG’ must be considered in the context of constitutional complaints’.⁹⁹

In order to summarize the most important key elements of the Federal Constitutional Court and to provide suggestions for a European solution the Federal Constitutional Court says that the Climate Protection Act is too short and that the significantly less than 2-degree and, if possible, 1.5-degree limit of the Paris Climate Agreement is constitutionally binding. Instead of a forward-looking plan, however, the current Climate Protection Act stipulates that a large part of the remaining budget of emissions may be consumed by 2030. There is also a lack of concrete measures on how to get emissions to zero in a timely manner. Much more ambitious targets and instruments are now needed that fit in with the Paris goal. The legislator is obliged to deal more carefully with the remaining emissions that are still possible.

‘The proposed fundamental right to environmental protection with regard of the right on having a future for the next generations is to be embedded into the Charter of Fundamental Rights of the EU. Since AT 37 already contains a ‘right’ under the title ‘environmental protection’, Schirachs’ proposal can only be about supplementing the standard or replacing its content. There is much to be said for an understanding of the proposal in the sense of replacement, since, on closer inspection, Art 37 of the GrCh turns out to be an EU objective corresponding to the provisions of Arts 11 and 191 TFEU, which cannot confer any rights on citizens of the Union. In the Convention on Fundamental Rights set up in 1999 to draw up the Charter, it was not possible to agree on a fundamental right to environmental protection,

⁹⁶ V. Jacometti, ‘Climate Change Liability. Some general Remarks in a Comparative Law Perspective’, in B. Pozzo e V. Jacometti eds, *Environmental Loss and Damage in a Comparative Law Perspective* (Cambridge: Intersentia, 2021), 387.

⁹⁷ Sachverständigenrat – Wirtschaft, n 92 above, 251.

⁹⁸ Siehe etwa: BVerfGE 134, 242, Rn. 298 und BVerfG, Urt. v. 24.11.2010, Az. 1 BvF 2/05; offengelassen in BVerfG, NVwZ 2010, 114 (Rn. 31).

⁹⁹ Compare C. Callies, ‘Möglichkeiten und Grenzen eines Klimaschutz durch Grundrechte (Klimaklagen) Zugleich ein Beitrag zum Vorschlag von Ferdinand von Schirach für ein Grundrecht auf Umweltschutz’ *Berliner Online-Beiträge zum Europarecht*, 22 (2021). Dazu ausführlich das Sondergutachten des die Bundesregierung beratenden Sachverständigenrats für Umweltfragen (SRU), *Demokratisch regieren in ökologischen Grenzen – Zur Legitimation von Umweltpolitik*, Juni 2019, S. 175-18; (available at <https://tinyurl.com/2mw9csff> (last visited 30 June 2022)).

because the European Charter of Fundamental Rights to be drawn up should only contain enforceable fundamental rights that should not promise citizens more than what they can then redeem in court'.¹⁰⁰

The European Union relies on overarching target formulations, EU-wide measures and binding national climate protection targets for a climate-friendly economy. In December 2019, EU leaders committed themselves to the goal of climate neutrality by 2050. By that time, therefore, all greenhouse gas emissions in the European Union should be avoided as far as possible. The remaining residual emissions must be offset by processes that remove greenhouse gases from the atmosphere, sustainably managed forests and soils. With the European Green Deal, the European Union is showing to play an international pioneering role in climate protection. Germany is playing an active role in shaping European climate policy, this endeavor should be executed from each Member State within the European Union.

¹⁰⁰ Compare C. Callies, n 99 above, 22.