

The Climate Chapter of China's Environmental Code – An assessment from the perspective of EU and German climate law

Study report for the project Sino-German Cooperation on Climate Change – NDC Implementation

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24 July 2026

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Suggested citation

Sina, Stephan (2026): The Climate Chapter of China's Environmental Code – an assessment from the perspective of EU and German climate law. Study report for the project Sino-German Cooperation on Climate Change – NDC Implementation, 24 July 2026.

Acknowledgements

This paper was made possible with support of the project Sino-German Cooperation on Climate Change – NDC Implementation. The project is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and is part of the International Climate Initiative (IKI), an initiative implemented by the Federal Ministry for Economic Affairs and Climate Action (BMWK).

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The views expressed are those of the author. They do not represent the institutions he works with, the German Federal Government, the Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety (BMUKN), or the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

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Glossary

Bundestag	German Federal Parliament
Länder	German federal states

Abbreviations

BVerfG	Bundesverfassungsgericht (Federal Constitutional Court)
CBAM	Carbon Border Adjustment Mechanism
CFP	Carbon Footprint of a Product
CO₂	Carbon dioxide
e.g.	Exempli gratia (for example)
ETS	European Emission Trading System
EU	European Union
GHG	Greenhouse gases
i.e.	Id est (that is)
KAnG	Bundes-Klimaanpassungsgesetz (Federal Climate Adaptation Act)
KSG	Bundes-Klimaschutzgesetz (Federal Climate Change Act)
LULUCF	Land Use, Land Use Change, and Forestry
NDC	Nationally Determined Contribution
para.	paragraph

Introduction

1 This study report is part of the Sino-German Cooperation on Climate Change – NDC Implementation. Through the climate legislation workstream, this cooperation supports the Chinese side by strengthening the exchange between experts and stakeholders from China and Germany and providing relevant information and experience from Germany and the EU.

In order to implement its NDC, the Chinese Government has been focusing on the further development of its climate legislation. On 12 March 2026, the National People's Congress (NPC) adopted the Ecological and Environmental Code (hereinafter "the Code"), which will become effective on 15 August 2026. Following the Code's adoption, "ecological and environmental law" was upgraded to an official "branch of [Chinese] law", thus giving it independent status within the Chinese law system.¹

The Code includes a book on green and low-carbon development (Book IV), a chapter of which is dedicated to responses to climate change (Chapter IV). Due to the general nature of this chapter, the elaboration of a dedicated climate act is still being considered.²

This study report assesses the Climate Chapter of China's new Environmental Code from the perspective of EU and German climate law. Chapter 2 gives an overview of the Climate Chapter of the Code and compares its main provisions with EU and German climate law. Based on EU and German experience, Chapter 3 develops recommendations for the further development of Chinese climate law with a view to a dedicated climate act.

The report closes with a summary (Chapter 4).

2 Comparison of the Code's Climate Chapter with EU and German climate law

2.1 Outline of the Code's Climate Chapter

Chapter IV of Book IV is entitled "Response to Climate Change". It consists of 27 articles (Articles 1025-1051) divided into four sections:

- ▶ Section 1: General rules
- ▶ Section 2: Climate Change Mitigation and Carbon Dioxide Peaking and Carbon Neutrality
- ▶ Section 3: Adaptation to Climate Change
- ▶ Section 4: International Cooperation

Important is also Article 1226 on sanctions for the violation of obligations related to the national market for trading carbon emission rights, which is included in Book V (Legal Liability and Supplemental Provisions), section 13 on violations of provisions of the administration of green and

¹ See Wei (2026a).

² See Wei (2026b), p. 8: Climate Chapter as foundation for a future dedicated climate law.

low-carbon development. Equally, the general provisions of Book IV and the provisions of Book I (General Part) are relevant for the understanding of Chapter IV of Book IV. In this study, however, they can only be considered exceptionally.

2.2 General rules

Articles 1025 to 1031 provide general rules regarding responses to climate change. Article 1025 emphasises the equal importance of mitigation and adaptation. Article 1026 determines competent authorities at national and regional level, while Article 1027 foresees the establishment of a decision-making coordination mechanism and other coordination and implementation arrangements. Articles 1028 and 1029 deal with GHG monitoring and information sharing mechanisms. According to Articles 1030 and 1031, the state strengthens the protection, restoration and sustainable management of ecosystems as well as research on scientific and technological support for addressing climate change, designating the latter as a priority field.

In Germany, both mitigation and adaptation are governed by framework laws establishing a governance structure for the respective German climate change policy: The Federal Climate Change Act (KSG)³ for mitigation and the Federal Climate Adaptation Act (KAnG)⁴ for adaptation. Being framework laws, they comprise general provisions which are binding only for state authorities, while individuals and companies are addressed by subsequent implementing measures.⁵

At state ("Länder") level, there are 13 state climate acts serving as framework laws and partly also including implementing regulations for the following federal states: Baden-Württemberg, Bavaria, Berlin, Bremen, Hamburg, Hessen, Lower-Saxony, Mecklenburg-Western Pomerania, North Rhine Westphalia, Rhineland-Palatinate, Saarland, Schleswig-Holstein, Thuringia.⁶ These state climate acts all regulate mitigation but most of them also contain some provisions on adaptation. Two states, however, have adopted a separate adaptation law: The Climate Adaption Act North Rhine-Westphalia⁷ and the Berlin Climate Adaption Act.⁸

Thus, in Germany as well, mitigation and adaptation are considered equally important. Within the Federal Government, the Federal Ministry of the Environment is currently responsible for coordination regarding the KSG and the KAnG. In addition, the KSG provides for detailed decision-making coordination mechanisms regarding the adoption of climate action programmes (section 9 KSG) and the gap-filling procedure (section 8 KSG). Likewise, the KAnG includes decision-making coordination mechanisms regarding the precautionary climate adaptation strategy (section 3) and corrective action for target achievement (section 5). Both laws also impose general cooperation duties on the federal level and the states (section 14 (2) KSG and

³ Federal Climate Change Act (Bundes-Klimaschutzgesetz, KSG) of 12 December 2019 (Federal Law Gazette I, p. 2513), last amended by the Act of 15 July 2024 (Federal Law Gazette I, no. 235). An English translation is available at https://www.gesetze-im-internet.de/englisch_ksg/englisch_ksg.html (all internet sources last visited on 24 July 2026).

⁴ Bundes-Klimaanpassungsgesetz (KAnG) of 22 December 2023 (Federal Law Gazette I, no. 393).

⁵ For more details regarding the KSG see the case study "Analysis of the German Federal Climate Change Act (KSG)" written for the preceding project on 13.1.2023, at 2.1. An English translation is available at https://www.bundesumweltministerium.de/fileadmin/Daten_BMU/Download_PDF/Gesetze/kang_en_bf.pdf.

⁶ For more details see Sina (2023a). Since then, the state climate act of Mecklenburg-Western Pomerania has been adopted, see Gesetz zur Gestaltung einer klimaverträglichen Gesellschaft, Umwelt und Wirtschaft in Mecklenburg-Vorpommern (Klimaverträglichkeitsgesetz – KIVG M-V) of 8 July 2026 (GVBl. no. 20, p. 659).

⁷ Klimaanpassungsgesetz Nordrhein-Westfalen (KIAnG) of 8 July 2021 (GV. NRW p. 910), amended by the Act of 11 March 2025 (GV. NRW p. 288).

⁸ Berliner Klimaanpassungsgesetz (KAnGBln) of 7 November 2025 (GVBl. p. 542).

section 9 (2) and (3) KAnG). Monitoring mechanisms are set up by sections 5 and 5a KSG and section 5 KAnG, and information sharing mechanisms included in several provisions of the laws, e.g. in the KSG regarding the publication of emission data (section 5 (1) or the forwarding of data, reports or assumptions on GHG reduction to Parliament or the Council of Experts on Climate Change (e.g. sections 10, 12 (2) and (3)) or in the KAnG regarding the climate risk analysis (section 4 (1)), the monitoring report (section 5 (1)) or reporting by the states to the competent federal ministry on specific issues (section 11).

At EU level, there are two framework laws: The European Climate Law (ECL)⁹ and the Governance Regulation.¹⁰ The former is a framework law similar to the KSG and KAnG and comprises mitigation targets and adaptation goals, the assessment of Union and national measures, the establishment of a European Scientific Advisory Board on Climate Change and measures on public participation. The Governance Regulation sets common rules for planning, reporting and monitoring.

2.3 Mitigation

Section 2 on Climate Change Mitigation and Carbon Dioxide Peaking and Carbon Neutrality contains nine provisions on climate change mitigation (Articles 1032-1040). Articles 1032-1034 deal with carbon dioxide peaking and carbon neutrality. Articles 1035-1036 and 1040 aim at accounting systems for carbon emissions, product carbon footprint and ecosystem carbon sinks. Articles 1037-1039 concern carbon emissions trading.

2.3.1 Carbon dioxide peaking and carbon neutrality

According to Article 1032, the state incorporates the requirements of carbon dioxide peaking and carbon neutrality into the national development plan, and promotes climate change mitigation through the goals of carbon dioxide peaking and carbon neutrality. The latter is in line with the general provision of Book IV, Article 942, according to which the state actively and prudently works toward peaking carbon dioxide emissions and achieving carbon neutrality. Moreover, the state implements the system of controlling the total amount and intensity of carbon emissions, and determines carbon emission indicators based on the goals of carbon dioxide peaking and carbon neutrality.

What is striking from a German and EU perspective is that the goals of carbon dioxide peaking and carbon neutrality are addressed in general terms and not specified in terms of time, in spite of President Xi Jinping's announcement of China's national strategy in September 2020 to strive to reach the peak of carbon dioxide emissions before 2030 and aim to achieve carbon neutrality by 2060 (the "Dual Carbon Strategy").¹¹

By contrast, section 3 KSG sets the overall mitigation target to achieve net GHG neutrality by 2045, and binding interim targets for 2030 and 2040 (reductions of at least 65 % and 88 % respectively, compared to 1990 levels). Equally, the ECL includes the climate-neutrality objective to balance GHG emissions and removals at the latest by 2050, thus reducing emissions to

⁹ 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'), OJ L 243 of 9 July 2021, p. 1, amended by Regulation (EU) 2026/667 of 11 March 2026, OJ L 667 of 18 March 2026, p. 1.

¹⁰ Regulation (EU) 2018/1999 of the European Parliament and the Council of 11 December 2018 on the Governance of the European Union and Climate Action, OJ L 328 of 21 December 2021, p. 1, as amended by Directive (EU) 2023/2413, OJ L 2413 of 31 October 2023, p. 1.

¹¹ See Wang/Yu/Wu (2022), p. 4.

net zero by that date (Article 2 (1)), and provides intermediate climate targets for 2030 (reduction of at least 55 % compared to 1990 levels) and 2040 (reduction of at least 90 % compared to 1990 levels, see Article 4 (1) and 4 (3)).

Regarding the system of controlling the total amount and intensity of carbon emissions, including the determination of carbon emission indicators, the KSG establishes a budget system that quantifies the amount of allowed GHG emissions for certain time periods. Thus, Annex 2 to section 4 (1) sentence 2 and 3 determines total annual emission budgets for the years from 2020 to 2030 in million tonnes of CO₂ equivalent. For the years 2031 to 2040, the determination of emission budgets should have taken place in 2024,¹² for the years 2041 to 2045 it should take place in 2034 (section 4 (4)). The multi-annual emission budgets for the periods 2020-2030 and 2031-2040 are the reference points for annual emission projection data establishing, after assessment by the independent Council of Experts on Climate Change, whether Germany is on track and must adopt measures to ensure compliance (section 8).

Carbon emissions intensity is not an overall approach in German or EU climate law. However, it is used in some areas such as the Carbon Border Adjustment Mechanism (CBAM), where default values are determined by the average emission intensity for the product type in the country of origin including an increasing mark-up as an incentive to report actual, verified installation-level data. Carbon emission indicators are not prescribed, either, but are used for monitoring progress in achieving the targets, e.g. in the Federal Government's Climate Action Report 2025.¹³

Article 1033 links the promotion of carbon dioxide peaking and carbon neutrality to certain principles including risk prevention. The latter correlates to the precautionary principle, the most important principle of German and EU environmental law which is also guiding climate change law.¹⁴

According to Article 1034, the development and reform department of the State Council shall, in conjunction with relevant departments, prepare and organize the implementation of the national action plan for carbon dioxide peaking and carbon neutrality. The governments of provinces, autonomous regions, and municipalities directly under the central government have corresponding duties within their respective administrative regions.

Likewise, in Germany, section 9 KSG obliges the Federal Government to adopt a climate action programme at central level. To this end, all the relevant federal ministries must propose suitable measures. In addition, at subnational (state) level, most state climate acts require the state government to adopt a climate action programme or plan.¹⁵ These obligations are, however, specified in terms of time, content and procedure. For example, climate action programmes at federal level must be adopted within twelve months after the commencement of each legislative term following a public consultation procedure, and inter alia include scientific estimates of the probable GHG reduction effects and potential economic, social and other environmental impacts of the proposed measures. In addition, the Council of Experts on Climate Change is involved in the adoption of climate action programmes (section 12 (3) no. 3 KSG).

¹² On 11 June 2026 the German Bundestag, the national parliament, approved the Federal Government's determination of annual reduction targets in terms of total annual emissions for the years 2031 to 2040 by statutory instrument.

¹³ See Deutscher Bundestag, BT-Drucksache 21/1250 of 7 August 2025, Klimaschutzbericht 2025, p. 2 et seq., <https://dserv.bundestag.de/btd/21/012/2101250.pdf>.

¹⁴ Kloepfer/Durner (2020), § 10 para. 5; Meßerschmidt (2011), § 3 para. 95.

¹⁵ See Sina (2023a).

At EU level, Article 3 (1) of the Governance Regulation requires the Member States to adopt, every ten years, integrated national energy and climate plans (NECPs). Articles 3 (2) and Article 4 determine the content of these plans which are central to achieving the targets of the ECL but go beyond decarbonisation.

2.3.2 Accounting systems

Article 1035 provides for the establishment of a statistical accounting system for carbon emissions and designates responsibilities. The statistical department of the State Council is responsible for organizing the statistical accounting nationwide, whilst the ecology and environment and market regulation departments shall organize, together with relevant departments, the development of carbon emission accounting standards and technical specifications for enterprises in priority industries. The ecology and environment department and the statistical department shall establish and regularly update a national GHG emission factor¹⁶ database.

In Germany, the Federal Environmental Agency (UBA) compiles the GHG emission data for the preceding calendar year, both overall and for the sectors listed in Annex 1 to section 5 KSG. This compilation, which started with the reference year of 2020, is based on the methodological requirements of the EU Governance Regulation and implementing regulations, especially Commission Implementation Regulation (EU) 2020/1208,¹⁷ which are themselves based on the requirement of the UNFCCC¹⁸ to submit national GHG inventories (see Article 26 (4) Governance Regulation). Annual reporting to the European Commission under Article 26 Governance Regulation enables, through the national inventories of the Member States, a comprehensive monitoring of EU requirements on mitigation including the Emission Trading Scheme (EU ETS), Effort Sharing (Non-ETS) and LULUCF.¹⁹ Germany's national GHG inventory system is not regulated by law, and data are provided through statistical offices at the federal or regional state level, from other public sources or from non-state actors based on cooperation agreements.²⁰

The compilation of GHG emission data is part of the monitoring under section 5 KSG which includes additional information such as whether emission data of the preceding year are higher or lower than the total annual emission budget under Annex 2 and the annual emission budget for the sectors under Annex 2a (see section 5 (2) KSG). The Council of Experts on Climate Change is involved in this monitoring according to section 12 (1) KSG.

Moreover, these emission data are the basis for the annual compilation of projection data according to section 5a KSG. As mentioned above, these annual emission projection data establish, after assessment by the Council of Experts on Climate Change, whether Germany is on track and whether it must adopt measures to ensure compliance according to section 8 KSG.

¹⁶ According to Article 1035, „greenhouse gas emission factor“ means the coefficient that represents the GHG emission per unit of production or consumption activity.

¹⁷ Regulation (EU) 2020/1208 of 7 August 2020 on structure, format, submission processes and review of information reported by Member States pursuant to Regulation (EU) 2018/1999 of the European Parliament and of the Council and repealing Commission Implementing Regulation (EU) No 749/2014, OJ L 278 of 26 August 2020, p. 1, as amended by Commission Implementing Directive (EU) 2024/1281, OJ L 1281 of 17 May 2024, p. 1.

¹⁸ United Nations Framework Convention on Climate Change of 9 May 1992, UN Treaty Collection volume II, chapter 27, 7.

¹⁹ Weiser-Saulin (2026) para. 5.

²⁰ Kurdziel/Anbygier/Illenseer (2023), p. 20-21.

GHG accounting by enterprises (corporate carbon accounting) in the EU is mainly governed by the Monitoring and Reporting Regulation²¹ which lays down specific rules for application of GHG accounting within the EU ETS, but also by other regulations²² such as the Corporate Sustainability Reporting Directive²³ and the Corporate Sustainability Due Diligence Directive.²⁴

Article 1036 requires relevant departments of the State Council to conduct product carbon footprint management, develop product carbon footprint accounting standards and technical specifications, and establish corresponding accounting, management, labelling and certification, and information disclosure systems.

In the EU, product-related GHG emissions are especially relevant in the context of the CBAM. The embedded emissions in imported goods and electricity are the key factor in determining the amount of CBAM certificates that importers must surrender according to the CBAM Regulation²⁵ and implementing regulations to reduce the risk of carbon leakage. They are calculated on the basis of actual verified emissions from the production installation located outside the EU or default values representing the average emission intensity for the product type in the country of origin including an increasing mark-up.

However, the calculation of embedded emissions under CBAM does not correspond to the carbon footprint of a product (CFP), as it does not, for example, cover the total GHG emissions of a product throughout its lifecycle.

The CFP, which is mainly based on the international standard ISO 14067 (Quantification and reporting of the carbon footprint of a product (CFP)), is increasingly used by companies to show their commitment to climate action to the consumers of their products.²⁶ In the EU, CFP is regulated by the Ecodesign for Sustainable Products Regulation (ESPR)²⁷ which enables the setting of performance and information rules. Compared to the previous Ecodesign Directive 2009/125/EC, it covers more than energy-related products, extends the range of ecodesign requirements inter alia to the overall reduction of the environmental and climate footprint of products, and will introduce a Digital Product Passport.²⁸

²¹ Implementing Regulation (EU) 2018/2066 as regards updating the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council, OJ L 334 of 31 December 2018, p. 1, last amended by Commission Implementing Regulation (EU) 2024/2493 of 23 September 2024, OJ L 2493 of 27 September 2024, p. 1.

²² See Scholz/Wehr/Montrone/Geres (2025), p. 15 et seq.

²³ Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting, OJ L 322 of 16 December 2022, p. 15, last amended by Directive (EU) 2026/470 of 24 February 2026, OJ L 470 of 26 February 2026, p. 1.

²⁴ Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859, OJ L 1760 of 5 July 2024, p. 1, last amended by Directive (EU) 2026/470 of 24 February 2026, OJ L 470 of 26 February 2026, p. 1.

²⁵ Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism, OJ L 130 of 16 May 2023, p. 52, amended by Regulation (EU) 2025/2083 of 8 October 2025, OJ L 2083 of 17 October 2025, p. 1.

²⁶ UBA, CO₂-Fußabdruck (Carbon Footprint), last update 21 February 2025, <https://www.umweltbundesamt.de/themen/wirtschaft-konsum/produkte/oekobilanz/co2-fussabdruck-carbon-footprint#was-ist-der-carbon-footprint>.

²⁷ Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC, OJ L 1781 of 28 June 2024, p. 1.

²⁸ https://environment.ec.europa.eu/strategy/circular-economy/ecodesign-sustainable-products-regulation_en.

Finally, according to Article 1040, the state establishes an ecosystem carbon sink monitoring and accounting system to assess carbon reserves, strengthens ecological protection and restoration, and consolidates and enhances the carbon sink capacity of ecosystems.

In Germany, section 3a KSG provides a specific target to increase the expansion of natural sinks in the LULUCF sector. These quantified targets are expressed as negative emissions (-25 million tonnes of CO₂ equivalent by 2030, -35 by 2040 and -40 by 2045) and calculated as the mean of the respective target year and the three preceding years to limit the impact of natural fluctuations in sink performance. The idea behind introducing these targets was to offset unavoidable emissions remaining in 2045.²⁹

The emission balances are based on the monitoring data which include GHG sources and sinks for the LULUCF sector (section 5 (2) no. 3 KSG). Section 5 (3) authorises the Federal Government to regulate the accounting in accordance with EU law requirements and to improve GHG reporting in this sector by using remote-sensing data.

At EU level, the LULUCF Regulation³⁰ sets a net GHG removal target of 310 million tonnes of CO₂ equivalent by 2030 and binding individual targets for the Member States (Article 4 (2) and (3)). Article 5 prescribes general accounting rules, Articles 6-10 specific accounting rules for different land categories, harvested wood products and natural disturbances. If a Member State is not making sufficient progress towards meeting its target, a corrective mechanism applies which foresees a corrective action plan with additional measures (Article 13d).

In addition, the Nature Restoration Regulation³¹ establishes a framework for the restoration of degraded ecosystems with the objective to restore at least 20% of the EU's land and sea areas by 2030 and all ecosystems in need of restoration by 2050 (Article 1). The Regulation also sets specific targets regarding e.g. urban, marine, agricultural and forest ecosystems. Key to implementing restoration measures are national restoration plans prepared by the Member States.

2.3.3 GHG emission trading

According to Article 1037, the state establishes the national carbon emission rights trading market. This cap-and-trade system for carbon emissions subjects key emission entities to a compulsory system of reporting GHG emissions and purchase, selling and surrendering carbon emission allowances in accordance with the relevant provisions issued by the state.³² The Code thus elevates China's nascent carbon emission trading system into a statutory scheme.³³ Non-compliance can result in substantial fines including suspension of operations (Article 1226).

In the EU, the cap-and-trade mechanism to reduce greenhouse gas emissions from industrial companies is the Emission Trading Scheme (EU ETS 1), which is in place since 2005. It has recently been enlarged to cover the gradual inclusion of maritime transport, the introduction of the CBAM, the upcoming introduction of upstream emissions trading for buildings, road

²⁹ BT-Drs. 19/30230 of 2 June 2021, p. 16.

³⁰ 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, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU, OJ L 156 of 19 June 2018, p. 1, amended by Regulation (EU) 2023/839 of 19 April 2023, OJ L 107 of 21 April 2023, p. 1.

³¹ Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869, OJ L 1991 of 29 July 2024, p. 1.

³² See Winter (2025), p. 34 para. 168.

³³ Wei (2026b), p. 8-9.

transport and smaller industrial and energy installations (EU ETS 2) and to reform the rules for aviation.³⁴

In Germany, the ETS Directive has been transposed by the Greenhouse Gas Emissions Trading Act (TEHG).³⁵ This includes the allocation and management of the auctioning of emission allowances in Germany as well as the monitoring of the annual emissions reporting and the surrender of the required emission allowances, but also the imposition of sanctions for breaches of the TEHG.

In addition, there is a national emission trading system for sectors not covered by the TEHG, mainly the heat and transport sectors, regulated by the Fuel Emission Allowances Trading Act (BEHG).³⁶ Unlike the ETS 1, it is an “upstream” cap-and-trade system which means that not the polluters, but the companies responsible for placing fossil fuels on the market must buy certificates for doing so. By adding these costs to the purchase price, consumers are incentivised to use less of these fuels. This National Emissions Trading Scheme (nEHS) will be transferred to the upcoming ETS 2, which will be regulated by a separate subsection of the TEHG.

According to section 1038, the state also establishes a national voluntary GHG emissions reduction trading market to encourage voluntary GHG emissions reduction trading. This voluntary trading, to which entities and individuals may participate, will apply to projects aiming at carbon reduction and carbon sink increase.

Until recently, the voluntary carbon market in the EU has not been regulated but based on standards developed by private providers. References to such standards have been included in some state climate change acts in the context of compensation for GHG emissions in order to achieve a climate-neutral state administration.³⁷ This situation has changed with the Carbon Removal Certification Framework Regulation (CRCF Regulation)³⁸ adopted in 2024 which created a standardised and transparent EU-wide voluntary framework for the certification of carbon removals and soil emission reductions on the voluntary carbon market.³⁹ To prevent greenwashing, the CRCF Regulation sets out quality criteria and rules for the verification and certification of carbon removals and soil emission reductions, as well as rules for the operation of certification schemes and the issuance and use of certificates. Carbon removals and soil emission reductions cover permanent carbon removal (BECCS and DACCS), carbon farming and carbon storage in products (see Article 1).

Article 1039 determines the departments of the State Council responsible for supervising and administering the mandatory and the voluntary carbon trading. In Germany, the German Emissions Trading Authority (DEHSt) at the Federal Environmental Agency (UBA) is the competent

³⁴ See Directive 2003/87/EC of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union, OJ L 275, p. 32, last amended by Regulation (EU) 2024/795 of 29 February 2024, OJ L 795, p. 1.

³⁵ Greenhouse Gas Emissions Trading Act (Treibhausgas-Emissionshandelsgesetz, TEHG) of 27 February 2025 (Federal Law Gazette I, no. 70).

³⁶ Fuel Emission Allowances Trading Act (Brennstoffemissionshandelsgesetz, BEHG) of 2 December 2019 (Federal Law Gazette I, p. 2728), as last amended by the Act of 27 February 2025 (Federal Law Gazette I, no. 70).

³⁷ See Sina (2023a) at p. 16 (Baden-Württemberg), p. 20 (Rhineland-Palatinate), p. 40 (Hessen) and p. 43 (Saarland).

³⁸ Regulation (EU) 2024/3012 of the European Parliament and of the Council of 27 November 2024 establishing a Union certification framework for permanent carbon removals, carbon farming and carbon storage in products, OJ L 3012 of 6 December 2024, p. 1.

³⁹ See Gleiss Lutz (2024).

national authority for implementing the EU ETS and the National Emissions Trading Scheme (nEHS).

2.4 Adaptation

Articles 1041 to 1047 cover adaptation to climate change. Article 1041 establishes the prioritisation of prevention, i.e. mitigation, over adaptation. The state develops the strategy for adaptation, adopts measures to reduce the adverse impacts and risks of climate change, and establishes a climate-resilient society. The governments at sub-national levels shall prepare and implement adaptation plans within their administrative regions. According to Article 1042, the state implements regional climate change adaptation actions and enhances the capacity of major strategic regions to adapt to climate change. Article 1044 obliges the relevant departments of the State Council to strengthen the assessment of the impacts and risks of climate change in ecosystems and priority economic and social fields, and to enhance the capacity of these fields to adapt to climate change.

Prioritisation of mitigation over adaptation is not explicitly enshrined in German or EU climate law.⁴⁰ Both Article 5 ECL and section 1 KAnG aim at reducing the negative effects of climate change, strengthening resilience of ecosystems and society, and contributing to international efforts in climate adaptation. Thereby, the KAnG emphasizes the social dimension of the adverse impacts of climate change. Article 5 (1) and (4) ECL requires an EU strategy on adaptation and national adaptation strategies and plans.

Accordingly, the development and implementation of adaptation strategies at all levels is core to the KAnG. First, the Federal Government must prepare, regularly update and implement a precautionary climate adaptation strategy based on a climate risk analysis (section 3 KAnG). The strategy must include certain clusters such as land and land use, water, infrastructure, human health and care provision, and associated areas of action. For each cluster, measurable targets and indicators, measures to achieve the targets and mechanisms for evaluating progress must be set. The 2024 German Strategy for Adaptation to Climate Change has been adopted end of 2024.⁴¹

Second, section 10 KAnG requires each state to prepare and implement a precautionary climate adaptation strategy based on climate risk analyses, which includes targets and measures. Third, the states must determine, within the constitutional limits, those public bodies at municipal level which are to establish climate adaptation plans and determine the essential contents of such plans (section 12 KAnG). Within the constitutional limits and in compliance with the relevant Budget Act, the Federal Government supports bodies discharging public functions with funding programmes and other facilitating functions (section 12 (7)).

⁴⁰ But see Federal Constitutional Court (BVerfG), Order of the First Senate of 24 March 2021 - 1 BvR 2656/18, para. 157 in the abridged English translation at http://www.bverfg.de/e/rs20210324_1bvr265618en.html: "In Germany as elsewhere, adaptation measures on their own would not be enough to sufficiently contain the risks posed to life and health over the long term ([...]). The legislator must therefore protect life and health by, in particular, taking action to stop climate change."

⁴¹ Bundesministerium für Umwelt, Klimaschutz, Naturschutz und nukleare Sicherheit, Deutsche Anpassungsstrategie an den Klimawandel 2024, https://www.bundesumweltministerium.de/fileadmin/Daten_BMU/Download_PDF/Klimaanpassung/das_2024_strategie_bf.pdf. An English version is available at <https://www.bundesumweltministerium.de/en/download/2024-german-climate-adaptation-strategy>.

According to Article 1043, the impacts and risks of climate change shall be considered in territorial spatial plans.

In Germany, section 8 (1) no. 2 of the Spatial Planning Act (ROG)⁴² requires a Strategic Environmental Assessment which includes an assessment of the impacts of the territorial spatial plan on the climate. In addition, section 2 (2) no. 6 sentences 10 and 11 ROG requires that account must be taken of the spatial requirements of climate protection, both through measures that counteract climate change and through those that facilitate adaptation to climate change. In the absence of such specialist legislation, section 8 KAnG requires bodies discharging public functions to give due consideration in their planning and decision-making to the objective of climate adaptation, especially to effects such as floods in the event of rainstorms, decline of the groundwater level, soil erosion or local heat-island effect.

Articles 1045 to 1046 deal with the prevention and management of natural disasters under the influence of climate change, including a risk monitoring and early warning system, optimization of the spatial layout of major infrastructure and improvement of rescue and public safety capabilities. Article 1047 addresses climate change health risks and climate-sensitive diseases by promoting health adaptation actions such as the improvement of the capacity of public health adaptation to climate change, extreme weather and climatic events.

According to the requirements of section 3 KAnG, the 2024 German Strategy for Adaptation to Climate Change provides targets and measures for the cluster urban development, spatial planning and civil protection, which include the area of action civil protection and disaster response, and the cluster human health and care provision.⁴³ Climate adaptation being a cross-sectoral issue involving every federal ministry, the Adaptation Strategy is aligned with other strategies such as the German Strategy for Strengthening Resilience to Disasters.⁴⁴

2.5 International Cooperation

Articles 1048 to 1051 deal with international cooperation. According to Article 1048, the state adheres to the principles of common but differentiated responsibilities, equity and respective capabilities, and actively engages in the global climate governance. It assumes corresponding international obligations in the field of responding to climate change based on its national conditions, development stages and actual capabilities, and the department of ecology and environment of the State Council shall regularly prepare nationally determined contributions, national GHG lists, and contract performance reports (Article 1049). The relevant departments shall conduct multilateral and bilateral international exchanges and cooperation in response to climate change (Article 1050). Finally, the state strengthens the international scientific and technological cooperation and exchange in the field of climate change response (Article 1051).

According to Article 59 (2) of the German Constitution (Grundgesetz (GG), Basic Law),⁴⁵ Germany has transposed the international climate treaties (UNFCCC, Kyoto Protocol and Paris Agreement) into its national legal system. Thus, it is legally bound by obligations of state parties

⁴² Spatial Planning Act (Raumordnungsgesetz – ROG) of 22 December 2008 (Federal Law Gazette I, p. 2986), as last amended by the Act of 12 August 2025 (Federal Law Gazette I, no. 189).

⁴³ See p. 56-75 of the English version available at <https://www.bundesumweltministerium.de/en/download/2024-german-climate-adaptation-strategy>.

⁴⁴ See p. 11 of the English version of the 2024 Adaptation Strategy available at <https://www.bundesumweltministerium.de/en/download/2024-german-climate-adaptation-strategy>.

⁴⁵ Basic Law of the Federal Republic of Germany (Grundgesetz, GG), as last amended by the Act of 22 March 2025 (Federal Law Gazette I, no. 94).

included in these treaties. Regarding NDCs, the EU and its Member States submit a joint NDC.⁴⁶

Moreover, in its decision of 21 March 2021, the Federal Constitutional Court linked the KSG to the protection of the environment according to Article 20a GG. The court derived an obligation of the State to take climate action and to strive for climate neutrality from Article 20a GG, which includes an international dimension compelling the state to engage in internationally oriented activities to tackle climate change at the global level and to promote climate action within the international framework, for example through negotiations or via treaties.⁴⁷

Accordingly, climate change is considered a topic not only in domestic German policy, but also in German foreign policy.⁴⁸

Recommendations for the further development of Chinese climate law

3

3.1 Assessment of the Code's Climate Chapter as basis for the further development of Chinese climate law

With the development of an environmental code that includes a climate chapter, China has taken a significant step towards improving its legislation on climate-related issues. The Code's climate chapter has been described as "a general statutory framework for climate governance".⁴⁹ However, many provisions are programmatic rather than directly applicable.⁵⁰ Thus, the current state of climate legislation does not yet represent a complete legal framework for carbon management considered essential for achieving carbon peak and carbon neutrality as soon as possible.⁵¹ Yet, the recent advisory opinions of the International Tribunal for the Law of the Sea (ITLOS)⁵² and the International Court of Justice (ICJ)⁵³ may require an effective mitigation framework to comply with obligations under international climate change law.⁵⁴

⁴⁶ See Submission by the Danish Presidency of the Council of the European Union and the European Commission on behalf of the European Union and its Member States of 5 November 2025, <https://un-fccc.int/sites/default/files/2025-11/DK-2025-11-05%20EU%20NDC.pdf>.

⁴⁷ BVerfG, Order of the First Senate of 24 March 2021 - 1 BvR 2656/18, paras. 199, 201. Abridged English translation at http://www.bverfg.de/e/rs20210324_1bvr265618en.html.

⁴⁸ Kurdziel/Anbygier/Illenseer (2023), p. 19.

⁴⁹ Wei (2026b), p. 8.

⁵⁰ Winter (2025), p. 44 para. (38) regarding Book IV of the Code.

⁵¹ See Wang/Yu/Wu (2022), p. 2.

⁵² International Tribunal for the Law of the Sea (ITLOS), Climate Change, Advisory Opinion of 21 May 2024, https://www.itlos.org/fileadmin/itlos/documents/cases/31/Advisory_Opinion/C31_Adv_Op_21.05.2024_orig.pdf.

⁵³ International Court of Justice, Obligations of States in respect of Climate Change, Advisory Opinion of 23 July 2025, <https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf>.

⁵⁴ See ICJ, para. 253: "What is required of parties under Article 4, paragraph 2, is not a guarantee that communicated NDCs will be achieved, but rather that they will make best efforts to obtain such a result. The Court considers that the obligation to "pursue domestic mitigation measures" that aim to achieve the objectives of their NDCs requires States to be proactive and pursue measures that are reasonably capable of achieving the NDCs set by them. These measures may include putting in place a national system, including legislation, administrative procedures and an enforcement mechanism, and exercising adequate vigilance to make such a system function effectively, with a view to achieving the objectives in their NDCs. On the ITLOS' similar view see Zeng/Wang (2025), p. 6 et seq.

For example, while the Code's climate chapter includes, to some extent, GHG reduction targets and procedural provisions to achieve these targets, as has been suggested in an earlier study,⁵⁵ the relevant provisions remain vague and incomplete. Articles 1032 (promotion of climate change mitigation through the goals of carbon dioxide peaking and carbon neutrality), 1034 (preparation and organisation of the implementation of the national action plan for carbon dioxide peaking and carbon neutrality), Article 1035 (establishment of a statistical accounting system for carbon emissions) and Article 1028 (establishment of GHG monitoring) provide the main elements of such a governance system but lack details in terms of content and time (see 2.2, 2.3.1 and 2.3.2).

Thus, the Code's climate chapter has rightly been assessed as "laying the foundation for a future dedicated climate law".⁵⁶ In the following parts, some recommendations will be developed how to proceed towards such a specific climate law.

3.2 Determination of mitigation targets

From a German and EU perspective, the first step in progressing towards a dedicated climate change law would be to further specify the goals of carbon dioxide peaking and carbon neutrality in legislation.

First, the goals should be specified in terms of time according to China's Dual Carbon Strategy, i.e. to strive to reach the peak of carbon dioxide emissions by 2030 and aim to achieve carbon neutrality by 2060.

Second, there is a considerable gap between the peaking goal by 2030 and the carbon neutrality goal by 2060. Especially German experience shows the importance of initiating the transition to climate neutrality in good time by setting a timely and transparent reduction trajectory. The original version of the German Federal Climate Change Act (KSG 2019) had only one interim target for the period up to 2030 on the way to achieving climate neutrality (at the time by 2050), with an obligation of the Government to determine decreasing annual emission budgets for further time periods beyond 2030 in 2025. According to the Federal Constitutional Court, this timeline was insufficient to enable enterprises and citizens to redesign products and behaviour in a climate-neutral manner in good time, as well as enable long-term planning.⁵⁷ As a consequence, the KSG 2021 amended the 2030 interim target and the climate-neutrality target (now to be achieved by 2045), introduced an additional interim target for the period up to 2040 and established a trajectory to climate neutrality for the time periods 2031-2040 and 2041-2045 via emission budgets to be set according to a specific timeline.⁵⁸

Applied to China's Dual Strategy, this thinking would require a clear and timely pathway from carbon peaking to carbon neutrality, which covers a period of 30 years. The approach of the KSG and the ECL is to set interim targets for each decade, which in the case of the KSG are transformed into quantified emission budgets for each period (see 2.3.1). For China, interim targets could be set for the decades up to 2040 and 2050, and quantified emission budgets established for the periods 2031-2040, 2041-2050 and 2051-2060. In addition, a division of the emission budgets into sectoral targets would provide more specific orientation for companies

⁵⁵ Sina (2024), p. 22, 24.

⁵⁶ Wei (2026b), p. 8.

⁵⁷ Federal Constitutional Court (BVerfG), Order of the First Senate of 24 March 2021 - 1 BvR 2656/18, paras. 252-255 in the abridged English translation at http://www.bverfg.de/e/rs20210324_1bvr265618en.html.

⁵⁸ For more details see Sina (2023b), at 3; Bodle/Sina (2022) at p. 20-23.

and citizens regarding the trajectory to climate-neutrality.⁵⁹ Finally, dedicated targets for sinks (especially in the LULUCF sector) could be introduced to offset unavoidable GHG emissions.⁶⁰

Third, the question arises how specified GHG reduction targets could be determined. The most adequate piece of legislation would be a dedicated climate change act. Such a law may also be achieved in a step-by-step approach, starting with transposing the Dual Strategy into legally binding targets for carbon peaking and carbon neutrality and adding interim carbon reduction targets for 2040 and 2050. The advantage of such an approach would be to avoid another long adoption period and progress steadily towards a climate change act. Yet, the other main elements of a dedicated climate change act would need to be added in due time to achieve a complete and coherent legal framework.

Alternatively, interim reduction targets and emission budgets could also be established outside the statutory framework, e.g. in a strategic document. However, German experience with policy-dominated non-binding GHG reduction targets since 1990 had not been promising and lead to the adoption of the KSG 2019.⁶¹

3.3 Instruments and procedures to achieve mitigation targets

3.3.1 Introduction

There is no “one size fits all” approach regarding the instruments and procedures needed to achieve the mitigation targets of a climate framework law. Basic components include

- ▶ Some kind of implementation strategy compiling the measures (legislative and non-legislative) considered necessary to achieve the next interim target and be on track regarding the long-term climate-neutrality goal (climate action programme or plan)
- ▶ A transparent monitoring and reporting system based on a reliable GHG accounting system
- ▶ A gap-filling mechanism if interim targets are (likely) not met
- ▶ If relevant a cooperation mechanism for cooperation between the central government and local governments.

3.3.2 Implementation strategy

Article 1034 of the Code prescribes the preparation and organisation of the implementation of a national action plan for carbon dioxide peaking and carbon neutrality. Corresponding to a specified mitigation goal including interim targets (3.2), the national action plan should also include measures to achieve the interim targets for 2040 and 2050. Alternatively, several action plans could address carbon peaking by 2030, the interim reduction target for 2040 and the corresponding target for 2050, finally the achievement of carbon neutrality by 2060. In the latter case, all action plans should not exclusively focus on achieving the relevant interim target but also be compatible with the long-term goal of climate neutrality, i.e. not just focus on short-term measures.

Moreover, the national action plan should be specified in terms of time and content. In terms of time, the date of adoption and the intervals between updates should be determined. Minimum

⁵⁹ In the KSG 2024, the former binding sectoral targets were reduced to monitoring references but are still considered relevant to provide orientation.

⁶⁰ Section 3a of the KSG 2021 introduced specific targets for the LULUCF sector, see Sina (2023b), at 3.2.3. Section 3b of the KSG 2024 mandates the Federal Government to set additional targets for technical sinks (section 3b).

⁶¹ On the development of climate legislation in Germany see Sina (2024), p. 15-17.

content requirements could clarify that the action plan includes proposals from all relevant ministries for measures necessary to achieve specific mitigation targets, accompanying scientific assessments of the impact of these proposals regarding GHG reduction effects but also economic, social and (further) environmental impacts, and attribution of the proposals to specific sectors or denomination as cross-sectoral. In addition, involvement of key stakeholders in the process of developing the national action plan could be required to include input from business, science, NGOs and other branches of administration. Such requirements should best be determined in a dedicated climate change act.

3.3.3 Monitoring and reporting

Key to a legal mitigation framework with specific interim targets is a transparent monitoring and reporting system based on a reliable accounting system for GHG emissions. The provisions of the Code (Articles 1032 and 1035) appear ambiguous in this regard. On the one hand, a system of controlling the total amount of carbon emissions is to be implemented, and a statistical accounting system for carbon emissions to be established. On the other hand, a national GHG emission factor database shall be established, carbon emission intensity be controlled and carbon emission indicators determined. It is thus unclear to what extent China still sticks to the traditional system of carbon intensity targets based on indicators, and, conversely, to what extent it is on the way to establishing a control system for total reductions of carbon emissions.⁶²

Monitoring of carbon emissions is essential to determine whether mitigation targets and emission budgets are achieved or likely to be achieved and whether the state is on track to achieve climate neutrality. Monitoring should basically consist of three elements. First, a comprehensive compilation of carbon emissions data in all sectors based on a reliable carbon emissions accounting system, and publication of these data at regular intervals. This enables the determination whether specific mitigation targets, e.g. annual overall or sectoral budgets for the relevant year, are met. Second, projections of GHG emissions to estimate future development of GHG emissions. Such projections should be linked to the interim targets and emission budgets and include e.g. all subsequent years of the relevant decades. This enables the assessment whether future mitigation targets and emission budgets are likely to be met and thus whether the state is on track. Third, a transparent monitoring process includes regular reports on the monitoring results, i.e. the current state of GHG emissions and whether current mitigation targets and budgets are met, and whether current projection data indicate that current GHG emissions development is compatible with achieving future mitigation targets and budgets. In addition, regular reporting should include the state of progress in implementing the current carbon emission action plan and gap-filling measures if necessary.

Of course, the authorities responsible for monitoring and reporting must be clearly determined. This could include support by specialised agencies or independent scientific advice.⁶³

3.3.4 Gap-filling mechanism

If monitoring indicates that interim mitigation targets or emission budgets are not (likely to be) met or that GHG emissions development is not on track, redress is needed to come back on track. Such a gap-filling mechanism is an indispensable companion to monitoring.

Redress measures usually require targeted additional measures. These measures should focus on the sector(s) which are not on track but can also be cross-sectoral. Wherever possible they

⁶² On the relationship between both systems see Wang/Yu/Wu (2022), p. 4.

⁶³ For example, a national-level climate change monitoring and assessment center, see Zeng/Wang (2025), p. 10. In Germany, the independent Council of Experts on Climate Change is responsible for the assessment of the emissions data and the projection data compiled by the Federal Environmental Agency (section 12 (1) KSG).

should aim for short-term improvements, but German experience has shown that substantial improvements in some sectors such as buildings are difficult to realise within a few years.⁶⁴ Thus, short-term and longer-term measures must complement each other to achieve sustainable progress towards climate neutrality. Apart from that, the Government should have a considerable margin of appreciation as to what measures are adequate.

An effective gap-filling mechanism requires that redress measures are adopted timely. To this end, timelines for preparation (proposals by all relevant ministries, especially those responsible for under-achieving sectors) and adoption by the Government could be set.

3.3.5 Cooperation between the central Government and local governments

Although the role of local governments in the process of achieving carbon neutrality is still limited in China, there are discrepancies in the implementation of climate change policies at local levels.⁶⁵ Especially where local governments have competences of their own, e.g. regarding the adoption of regional action plans for carbon dioxide peaking and carbon neutrality according to Article 1034 of the Code, cooperation between the central Government and the local governments is important for achieving the mitigation targets.⁶⁶ In Germany, the Federal Constitutional Court said that the federal government's mitigation targets could not be achieved at all without implementation of measures and specific legislation in the federal states.⁶⁷

Such cooperation can take various forms, from regular informal or formal meetings to agreements. In Germany, the general obligation to cooperate in section 12 (2) KSG is implemented in practice through a working group of the Federation and the Länder on climate, energy, mobility and sustainability.⁶⁸ More detailed provisions for cooperation would be possible as well.⁶⁹

The most ambitious way to coordinate the mitigation efforts of the central government and the regions would be to break down the national mitigation targets into sub-national targets for each region. This would be, however, very challenging, e.g. require an adequate distribution key.⁷⁰ For Germany, the Federal Constitutional Court questioned the added value of a territorial approach to emission reductions in addition to the existing sectoral approach.⁷¹

In any case, the respective competences and responsibilities of the central and local governments for mitigation should be clearly determined.

3.3.6 Other instruments or procedures

There is a variety of additional instruments or procedures regarding mitigation that could be envisaged for a dedicated climate law. For example, as part of a role model function of public authorities, targets for achieving the climate-neutral organisation of administrations could be set (see section 15 KSG). Likewise, public authorities could be obliged to give due consideration to climate change, or more specifically to the mitigation targets and the emission budgets in all decisions where they have some leeway, and in the process for investments and procurement (see section 13 KSG).⁷² Article 1032 of the Code is already moving in this direction by requiring the state to fully incorporate the requirements for carbon dioxide peaking and carbon neutrality into the national development plan.

⁶⁴ See Sina (2023b), at 5.2.

⁶⁵ Wang/Yu/Wu (2022), p. 5; Zeng/Wang (2025), p. 7.

⁶⁶ Wang/Yu/Wu (2022), p. 5.

⁶⁷ BVerfG, order of 18 January 2022, - 1 BvR 1565/21, para. 16.

⁶⁸ See Sina (2023a), at 3.1.1.

⁶⁹ Ibid. at 3.3.2.

⁷⁰ Ibid. at 3.3.2.

⁷¹ BVerfG, order of 18 January 2022, - 1 BvR 1565/21, para. 17.

⁷² For further details see Sina (2023b), at 2.3.5 and 3.2.5.

As already mentioned in the context of monitoring (3.3.3), independent scientific support could contribute to establishing a reliable mitigation framework. To this end, an Expert Council for Climate Change has been established in Germany (section 11 and 12 KSG) and a European Scientific Advisory Board on Climate Change in the EU (see Article 3 ECL). To some extent, a similar effect could be achieved by allowing legal remedies against certain mitigation decisions and thus involving the expertise of judges.

Moreover, public participation, e.g. in the elaboration of the national mitigation action plans, would be a mean to raise awareness and increase acceptance of the carbon reduction policy. The latter may also require taking account of the social aspects of climate change, i.e. "climate justice", e.g. in the energy sector.⁷³

Finally, a framework law for climate change would only be effective if other climate-related laws are consolidated or expanded to be able to contribute to achieving mitigation targets and emission budgets. Thus, for example, the mandatory emission trading system established by Article 1037 of the Code should be further refined by law, taking into account the experiences made in the EU.⁷⁴

3.4 Adaptation to climate change

As clarified by Article 1025 of the Code, adaptation is just as important as mitigation. It may thus be included as a sub-chapter in a dedicated climate act. This is the case with the ECL, and most of the German state climate change acts contain provisions on adaptation as well, although separate adaptation laws have been enacted recently (see 2.2). At federal level, however, adaptation has been regulated by a separate framework law, the KAnG. This seems logical as the areas of mitigation and adaptation differ fundamentally.

Adaptation to climate change should, therefore, be regulated in a separate but equally important framework law. Yet, such regulation is more difficult to achieve for adaptation than for mitigation. In particular, specific targets are more difficult to determine. This is the reason why the KAnG only includes general goals and shifts the determination of measurable targets and indicators to the precautionary climate adaptation strategy (section 1 and 3 (3) no. 1 and 2 KAnG). In addition, at least in Germany, the states have more competences regarding adaptation than mitigation which means that cooperation with the central government becomes even more important.

Basic elements of a framework adaptation law would include the determination of adaptation targets, adaptation strategies at central and local levels, monitoring and reporting, a gap-filling mechanism if monitoring shows that targets are likely not to be met, and a mechanism for cooperation between the central Government and the local governments. Article 1041 of the Code already prescribes adaptation strategies at central and local levels, but they lack details in terms of time and content, e.g. when to adopt and update the strategies or action plans.

Other instruments and procedures for achieving adaptation targets could be included as well, similar to the ones for a dedicated climate change act (see 3.3.6). For example, a general obligation of public authorities to give due consideration to the adaptation targets in all decisions where they have some leeway could secure that adaptation considerations are not overlooked in complex decision-making processes. Other laws should be mainstreamed to ensure that they contribute to the achievement of the adaptation targets, e.g. regarding flood or heat protection.

⁷³ See Xu (2023), p. 7 f.

⁷⁴ With some reservations and including the experiences made in the US Winter (2025), p. 34 para. 168 and p. 44 para (39).

Finally, from a German perspective, providing sufficient financial means at local levels is key to progressing towards the adaptation goals.⁷⁵

Summary

4 With the development of an environmental code that includes a climate chapter, China has taken a significant step towards improving its legislation on climate-related issues. In particular, the Code's climate chapter includes, to some extent, GHG reduction targets and procedural provisions to achieve these targets. However, the relevant provisions lack details in terms of content and time, as exemplified by the fact that the timelines for the goals of carbon dioxide peaking and carbon neutrality (2030 and 2060) are not mentioned. Thus, the current state of climate legislation does not yet represent a complete legal framework for carbon management considered essential for achieving carbon peak and carbon neutrality as soon as possible. However, the Code's climate chapter can be considered as laying the foundation for a future dedicated climate law.

Recommendations how to proceed towards such a specific climate law are provided in general for a framework law for adaptation to climate change and in more details for a framework law for climate change mitigation (climate change act or law).

From a German and EU perspective, the first step in progressing towards a dedicated climate change law would be to further specify the goals of carbon dioxide peaking and carbon neutrality in legislation and to close the considerable time gap between the two goals by setting a timely and transparent reduction trajectory. For China, interim targets could be set for the decades up to 2040 and 2050, and quantified emission budgets established for the periods 2031-2040, 2041-2050 and 2051-2060. In addition, a division of the emission budgets into sectoral targets would provide more specific orientation for companies and citizens regarding the trajectory to climate-neutrality, and dedicated targets for sinks (especially in the LULUCF sector) could be introduced to offset unavoidable GHG emissions.

Regarding instruments and procedures to achieve the mitigation targets of a climate framework law, the national action plan for carbon dioxide peaking and carbon neutrality should be adapted to these mitigation targets and emission budgets and further specified in terms of time and content. Moreover, monitoring of carbon emissions is essential to determine whether mitigation targets and emission budgets are achieved or likely to be achieved and whether the state is on track to achieve climate neutrality. Monitoring should include a comprehensive compilation of carbon emissions data in all sectors based on a reliable carbon emissions accounting system, projections of GHG emissions to estimate future development of GHG emissions, and regular reports on the monitoring results and the state of progress in implementing the current carbon emission action plan. If monitoring indicates that interim mitigation targets or emission budgets are not (likely to be) met or that GHG emissions development is not on track, redress is needed to come back on track. To this end, a gap-filling mechanism should be introduced that includes targeted additional measures adopted in a timely manner. Furthermore, cooperation between the central Government and the local governments is important for achieving the mitigation targets, especially where local governments have competences of their own. To this end, the respective competences and responsibilities of the central and local governments for mitigation should be clearly determined and some form of regular cooperation established. Additional instruments and procedures may include targets for achieving the climate-neutral organisation of

⁷⁵ See Scherff (2024), p. 285.

administrations, an obligation of public authorities to give due consideration the mitigation targets and the emission budgets in all decisions where they have some leeway, and in the process for investments and procurement, the involvement of independent scientific support for a reliable mitigation framework and public participation to raise awareness and increase acceptance of the carbon reduction policy. Finally, other climate-related laws need to be consolidated or expanded to be able to contribute to achieving the mitigation targets and emission budgets.

As the areas of mitigation and adaptation differ fundamentally, adaptation to climate change should be regulated in a separate but equally important framework law. Such an adaptation law is more difficult to achieve, especially regarding specified adaptation targets. Besides such targets, core elements would include adaptation strategies at central and local levels, monitoring and reporting, a gap-filling mechanism if monitoring shows that targets are likely not to be met, and a mechanism for cooperation between the central Government and the local governments. Further instruments and procedures could include a general obligation of public authorities to give due consideration to the adaptation targets in all decisions where they have some leeway, and an obligation of the state to provide sufficient financial means for adaptation measures at local levels. Finally, other laws should be mainstreamed to ensure that they contribute to the achievement of the adaptation targets.

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