Special report

on climate change governance in Germany

This special report comprises the concluding audit findings issued by the German SAI in accordance with Article 96 (4), sent. 1 Federal Budget Code. The decision on its disclosure is reserved to the German SAI.

Bonn, 24 March 2022

Climate change policy: Ambitious goals – yet poorly implemented

Germany pursues ambitious climate change goals, with high risk of failure. Climate change efforts need to be better controlled by using an effective monitoring system, a working cross-governmental climate governance and a climate policy that aligns with budget requirements.

Facts and figures

Thus far, Germany has failed to properly control climate policy. Most climate change programmes do not provide for targets regarding greenhouse gas reduction. Currently, enormous climate-damaging subsidies are paid. The coordination of policy initiatives between the various ministries does not run smoothly. The federal government’s climate change reports are incomplete and fail to support governance efforts. What is more, the climate impact of budget inflows and outflows remains largely opaque.

What are the next steps?

All climate change programmes need to come under scrutiny: They have to focus on an efficient and effective reduction of greenhouse gas emissions. Quantifiable reduction goals are to be set and their achievement to be monitored. If required, adjustments have to be made. The government should end climate-damaging subsidies. A better climate governance is necessary. This includes a proper coordination across all government departments, meaningful reports and disclosing climate change-linked inflows and outflows in the budget.

What is the objective?

If the new government implements the recommendations chances are high that Germany will achieve set climate goals. A target-oriented governance would also pave the way for an efficient use of funds. On top of that, the benefits and costs of climate change policy would become more transparent. All this would encourage social acceptance for climate change efforts also in the long run.

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List of Abbreviations

C

CCA Climate Change Act
Climate committee Cabinet Committee on Climate Change
CO2e CO2-equivalents
CTF Climate and Transformation Fund

E

ECF Energy and Climate Fund
Economic ministry Federal Ministry for Economic Affairs and Climate Action
EKFG Law on the Establishment of an 'Energy and Climate' Special Fund
Environment agency Federal Environment Agency
Environment ministry Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

F

Finance ministry Federal Ministry of Finance

G

GHG neutrality Greenhouse gas neutrality
GHG reduction Reduction of greenhouse gas emissions

N

NCI National Climate Initiative

O

OECD Organisation for Economic Co-Operation and Development

0 Executive summary

0.1 The government's climate change programmes include many projects aiming at the implementation of its climate change policy. Programmes adopted before the end of August 2020 are projected to only achieve a reduction of greenhouse gas emissions (GHG reduction) of 49 per cent (relative to the base year 1990) by 2030. As a result, there is a real danger of Germany not achieving reduction targets set for 2030 (minus 65 per cent). Given this danger, the new government pushes to introduce numerous additional programmes. Moreover, it needs to significantly enhance climate change governance. In so doing, the government has a better chance to efficiently achieve its ambitious climate change goals. Concurrently, the government needs to have an eye on social and economic goals, such as supply security and affordability.

Given the risk of not achieving set goals, the new government should ensure that future climate programmes only include projects that visibly contribute to abating greenhouse gas emissions in an efficient manner. Additionally, the government has to set GHG reduction targets that apply to all programmes. It has to monitor the path towards achieving set goals, and take adjustment measures if required. Otherwise, there is a real danger that – as demonstrated by the Climate Action Programme 2020 – many programmes have no impact.

The new government also has to revise current climate programmes. As to the climate action programme 2030, projections already show that only few programmes will lead to significant GHG reductions. Even the Immediate Climate Action Programme for 2022, which was launched in mid-2021, does not appear to help close the threatening "climate gap". This emergency programme encompasses only non-committal declarations and a small number of new projects, primarily aiming at providing more funds to existing funding programmes. GHG reduction targets to individual projects are not included in either climate programme.

We believe that due to the importance and the far-reaching impact of climate change policy a large-scale process monitoring is indispensable. The new government needs to gather all information available on the various projects' effects to form a basis for climate change-related decision-making at federal level.

0.2 The government uses a slew of instruments in achieving set climate goals. These include the national emissions trading system, tax privileges, infrastructure investments and funding programmes. Climate change policy hence does not only spark budget outflows.

The new government has to ensure that it uses these instruments in a consistent manner. Subsidies that add to the climate crisis must not pose an impediment to using these instruments. Rather than that, the government has to slash such subsidies – wherever possible. This would provide a greater fiscal scope for additional climate action.

0.3 At present, the federal government uses billions in federal funds to support climate change funding programmes. For most of the currently over 100 funding programmes it is unclear if, or to what extent, they (are supposed to) contribute to GHG reduction. As a result, federal budget funds go into programmes that are inefficient and ineffective as to climate protection. This makes it more difficult to achieve set climate goals, and even puts achieving such goals at risk. The new government needs to consequently bring its funding policy relative to climate protection in line with the goal of GHG reduction. To this end, it has to create a reliable set of data on set and achieved GHG reduction goals for the various funding programmes.

0.4 The fact that all federal ministries and entities have to address climate change has not been sufficiently considered yet. The "Cabinet Committee on Climate Change" (climate committee), which was created in the last parliamentary term to control and coordinate cross-government activities, failed to live up to its mission. It did not have key information at hand, and its mandate appeared weak. Regardless of how the new government is going to shape climate change policy, it is indispensable that cross-government activities as to climate protection will be coordinated in an effective and close manner. The government has to more intensively contemplate the effectiveness of its climate action. To this end, government needs to have current and reliable information about the implementation of this action.

0.5 Decisions as to climate protection need to be based on information on the current state and the impact of implementing climate action. Therefore, a robust reporting process is needed. The government so far considerably fails to live up to its goal pursued through issuing the Climate Action Report, namely to have a central monitoring tool at hand. The Climate Action Report does not include key information such as the GHG reduction already achieved by, or expected for, the various climate programmes. In particular, the parliament is dependent on a complete, current and transparent presentation of climate change projects to be able to perform its legislative function and its monitoring tasks vis-à-vis the government.

0.6 Funding climate change mitigation will be one of the most significant challenges that government will face in the years to come. The government therefore needs to have a comprehensive knowledge of all expenditure items having an adverse or benign impact on the path towards achieving set climate goals. Budgetary policy should be inextricably linked to climate change policy. To achieve this, the new government should analyse and assess all inflows and outflows as to their contribution to climate protection efforts (climate tracking). By doing so, the government would enhance the federal budget's effectiveness. What is more, hidden conflicts of goals – for example, caused by subsidies that are harmful to the climate – would become visible.

0.7 Climate change expenditures are borne by the Energy and Climate Fund (ECF), and by many departmental budgets. The government has not always laid down unambiguous guidance as to the allocation of expenditures to the federal budget and the Energy and Climate Fund respectively. As a result, government spending remained largely opaque. What is more, the Energy and Climate Fund’s reserve has increased in recent years to hit €31 billion in 2020. One might conclude that the problem does not lie in the information available, but in the implementation itself.

With the second 2021 supplementary budget, the ECF was allocated another €60 billion. The new government intends to reshape the ECF to become the Climate and Transformation Fund (CTF). In doing so, it must ensure that the shortcomings in managing the ECF and allocating expenditures are not repeated.

1 Background

Climate change is a global crisis. Global warming threatens our livelihood. Scientific institutions and the community of states therefore agree on the fact that GHG emissions need to be brought down significantly and shall not exceed the capacity of natural and technical processes to absorb emissions.

By ratifying the Paris climate agreement, Germany pledged to contribute to limiting global warming to considerably under two degrees Celsius, or preferably 1.5 to 2 degrees Celsius above pre-industrial levels. By 2045, Germany pledged to achieve a carbon neutral footprint (GHG neutrality) (cf. figure 1).

Figure 1

Government needs to redouble climate protection efforts

Since 1990, Germany reduced greenhouse gas emissions by 41%.
The remaining 59% must be achieved by 2045.

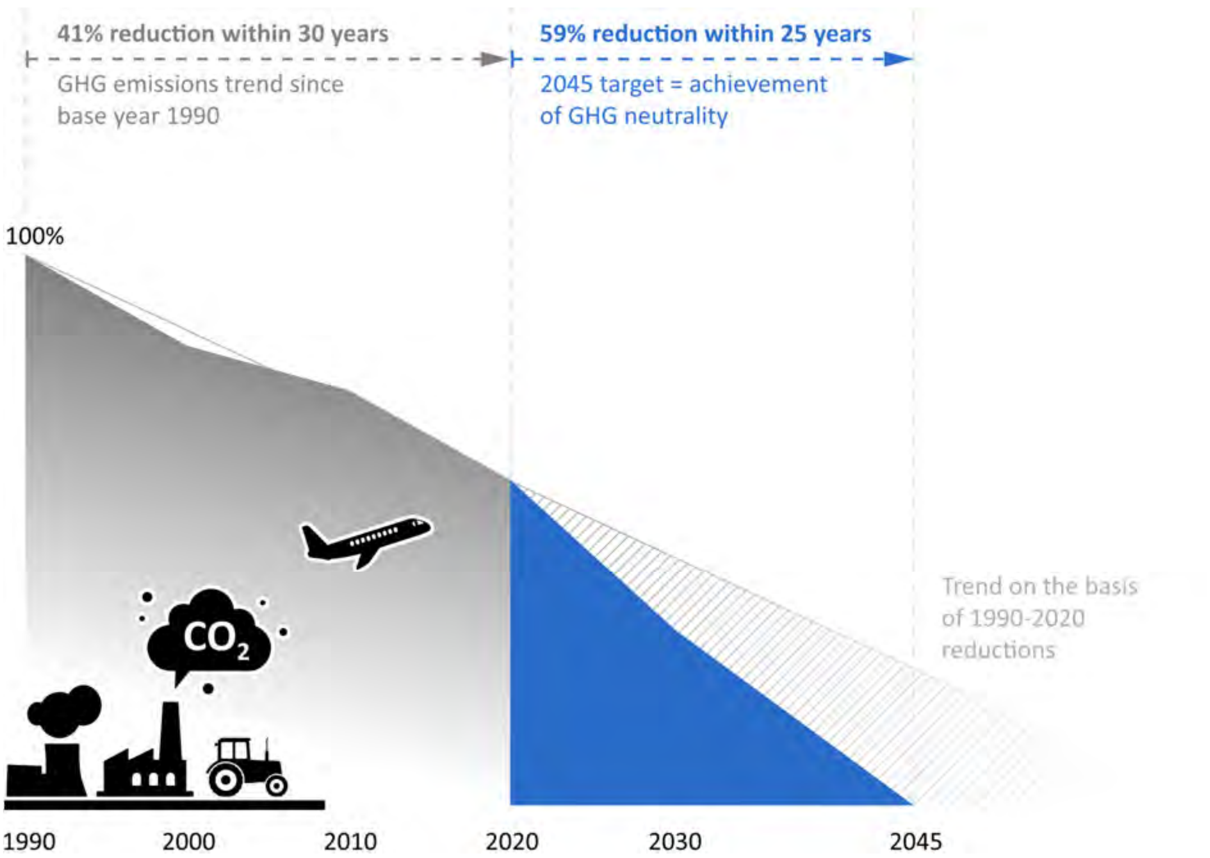

Image: Bundesrechnungshof

Source: German Environment Agency, National Inventory Report for the German Greenhouse Gas Inventory 1990–2019 (abridged version on the EU submission as of 15 January 2022), Federal Climate Change Act

Also, at EU level, Germany committed to significantly curb GHG emissions. EU legislation commits its member states to the reduction of emissions which are not covered by the EU

Emissions Trading System. If Germany fails to cut emissions in line with agreements it has to pay billions in compensation.[1]

In its “Climate Decision” of March 2021[2], the Federal Constitutional Court emphasised the constitutional requirement to protect our climate. There is a global dimension to this decision: One state alone is not in the position to tackle climate change. In fact, the Court argues that this issue can only be solved through international cooperation. In other words, German climate change policy is closely tied to international efforts. This, however, should not be an excuse for Germany to stop pursuing its own efforts. As an industrialised country, Germany has a special responsibility. Even if Germany’s share in global GHG emissions is only 2 per cent, per capita emissions hit 8.5 tonnes of CO_2 (in 2019) – which is significantly higher than the global average of 4.9 tonnes.[3]

To achieve a carbon neutral way of living by the end of the 21st century, both industrialised as well as developing and emerging countries have to take reasonable action targeting GHG emission reduction. Germany contributes to these efforts via climate financing, which is part of its climate change and development cooperation policies.

Climate change mitigation is a task requiring sizeable social change and thus widespread acceptance in Germany. The government hence faces the challenge to square climate goals with socio-economic goals. This particularly includes supply security and affordability. For this reason, the government needs to know the contribution made by its climate action to achieving set climate goals; how effectiveness can be enhanced; what costs are incurred; and how the various goals interact with each other.

We therefore looked into the mechanisms used by the former government since 2015 in monitoring and controlling the achievement of climate change goals. In this report, which was adopted by our Governing Board on 3 February 2022, we have given consideration to the comments sent by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, which in the last parliamentary term had lead responsibility for climate change policy (environment ministry)[4], and the Federal Ministry of Finance (finance ministry) on our audit findings. The report includes numerous recommendations on how the new government could optimise the monitoring and controlling of the achievement of set climate goals. The new government should not repeat the mistakes made in the past. It is

1 Purchase of emission allowances under the EU’s Effort Sharing Decision, concluding management letter of the Bundesrechnungshof of 13 November 2020, https://www.bundesrechnungshof.de/en/audit-reports/products/management-letters/purchase-of-emission-allowances-under-the-eu2019s-effort-sharing-decision.

2 The Federal Constitutional Court, decision of the First Senate of 24 March 2021 - 1 BvR 2656/18, https://www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/EN/2021/03/rs20210324_1bvr265618en.html.

3 Federal Ministry for the Environment, Nature Conservation and Nuclear Safety: Climate Action in Figures – Edition 2021, p. 4, https://www.bmuv.de/publikation/climate-action-in-figures-2021-en.

4 At the beginning of the 20th parliamentary term, the responsibility for national climate efforts passed on to the economic ministry. The environment ministry has changed its name to Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.

true that the “opening balance sheet on climate protection”[5] presented by the Federal Ministry for Economic Affairs and Climate Action (economic ministry) at the start of the parliamentary term emphasises the urgent need for action and announces new climate programmes, but it does not include any statements relative to enhanced controls.

2 Climate change policy

2.1 Objectives and regulatory environment

In 2007, the government set the goal to reduce GHG emissions in Germany. Emissions were to be reduced by at least 40 per cent by 2020 (relative to the base year 1990). Since then, the government readjusted national climate-change goals several times.

The German parliament in late 2019 adopted the Federal Climate Change Act (CCA).[6] This was to enshrine national climate goals in legislation for the first time. These goals are to be achieved by reducing GHG emissions in the sectors energy, industry, transport, buildings, agriculture as well as waste and others. The ecological, social and economic ramifications also need to be reflected (sec. 1 sentence 2 CCA).

The German parliament passed an amendment of the CCA on 24 June 2021. In particular, the amendment became necessary after the Constitutional Court’s “Climate Decision”, according to which the CCA, in part, failed to meet constitutional requirements. The decision requires that the government at an early stage establishes terms and conditions applicable to the design of GHG reduction requirements beyond 2030 that provide orientation for the required development and implementation processes as well as a certain level of planning security. The amended CCA therefore, for the first time, sets annual reduction targets for the period 2031-2040. In 2024, the government will need to get more precise in terms of this path for the various sectors (e.g. industry, transport). By 2030, GHG emissions in Germany have to be reduced by at least 65 per cent compared to the base year 1990; and by at least 88 per cent by 2040. By 2045, Germany is supposed to achieve a carbon neutral footprint (cf. figure 2). After 2050, the share of bound greenhouse gas should exceed the share of emissions in Germany.

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5 Economic ministry: Germany’s current climate action status (“opening balance sheet on climate protection”) of 11 January 2022, https://www.bmwk.de/Redaktion/EN/Downloads/E/germany-s-current-climate-action-status.pdf?__blob=publicationFile&v=11.

6 Federal Climate Change Act, http://www.gesetze-im-internet.de/englisch_ksg/#:~:text=(Bundes%2DKlimaschutzgesetz),-Full%20text%20in.

Figure 2

Milestones on the path to GHG neutrality

In less than 25 years, Germany is to achieve a carbon neutral footprint. Already in 2030, emissions have to be reduced by at least 65 per cent compared to the base year 1990.

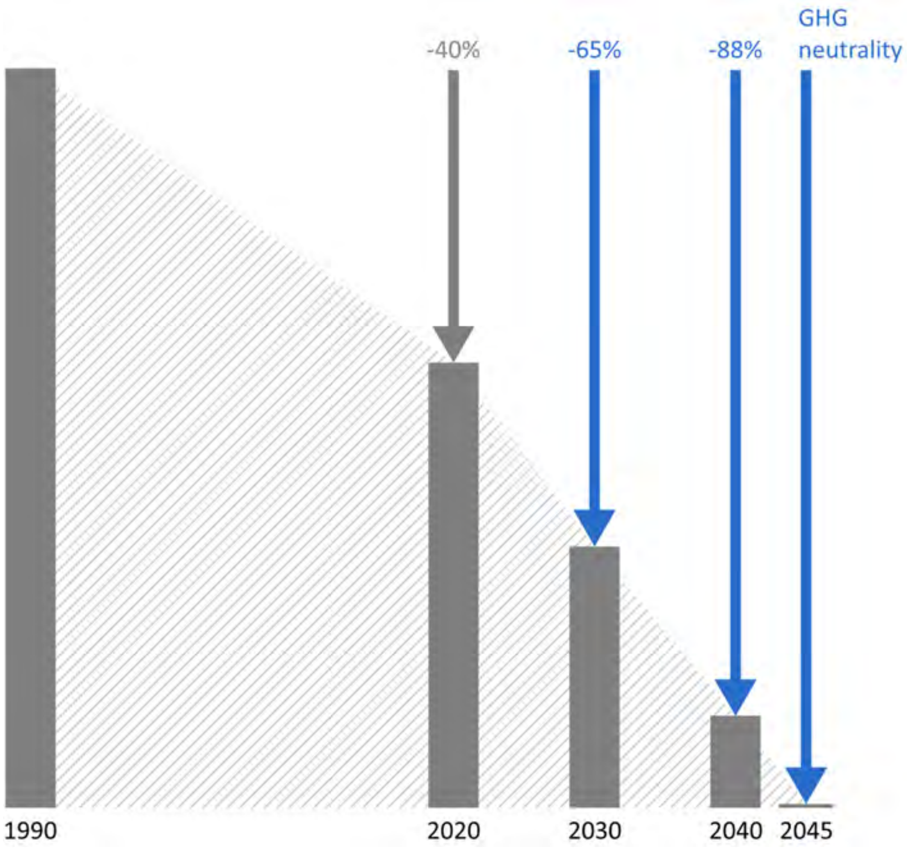


Image: Bundesrechnungshof.

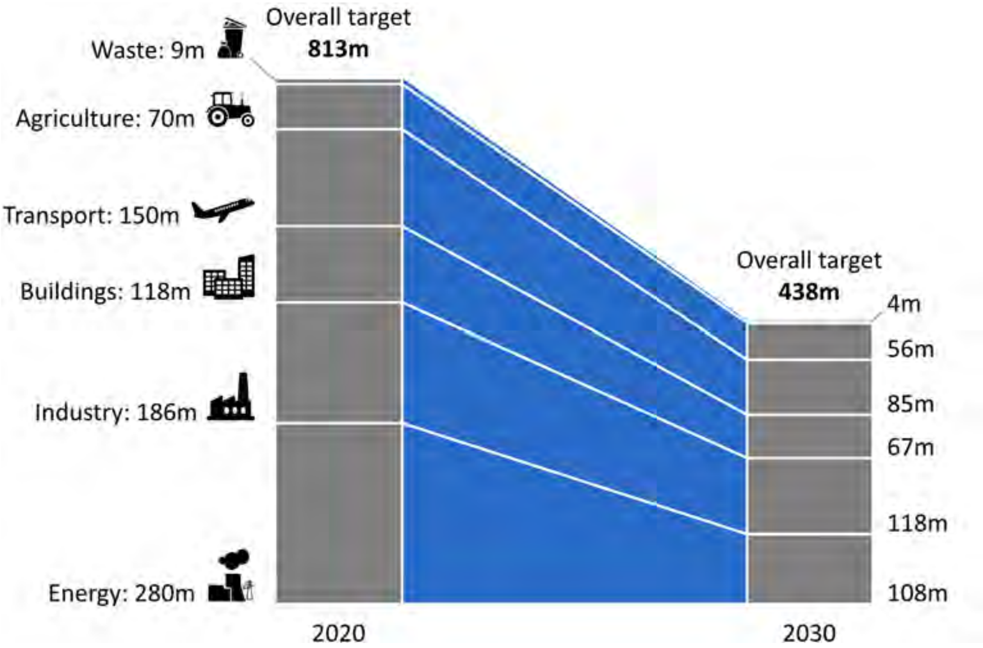
Source: 2021 CCA.

In addition, for the period 2023-2030, the legislator set new annual emission budgets in the CCA for the various sectors in a bid to help Germany to achieve the 2030 climate goal of at least 65 per cent (cf. figure 3). The CCA lays down annual interim targets until 2030 for all sectors (ex the energy sector) (sec. 4 para. 1 in conjunction with Annex 2 of the CCA, so-called “sector goals”). The sectors need to adhere to these goals.

Figure 3

All sectors have to sharply reduce emissions

The CCA sets reduction targets for all sectors until 2030.
The sectors need to adhere to these goals.



n.b.: In tonnes of CO_2-equivalents (t CO_2e)[7].

Image: Bundesrechnungshof.

Source: CCA.

The European Union also adopted legislation governing its climate goals: In July 2021, the European Climate Law came into effect which is to implement the “European Green Deal”.[8] Pursuant to the law, GHG neutrality must be achieved by 2050 by all EU member states, including Germany. In addition, by 2030, GHG emissions have to be reduced by at least 55 per cent at European level, compared to the base year 1990.

2.2 Emissions in Germany – an overview

The Federal Environment Agency (environment agency) annually publishes on 15 March provisional emission data on the previous year (Art 5 para. 1 CCA). Hereafter, the Council of

7 A carbon dioxide equivalent or CO_2-equivalent, abbreviated as CO_2e is a metric measure used to compare the emissions from various greenhouse gases on the basis of their global-warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential.

8 The European Green Deal, COM(2019) 640 final, https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF.

Experts on Climate Change examines the data and submits an assessment within one month (sec. 12 para. 1 CCA).

In the period 1990-2020, GHG emissions in Germany fell by 41 per cent – from 1 242 million tonnes of CO_2e to 729 million tonnes of CO_2e. As a result, Germany achieved its national goal to reduce GHG emissions by 40 per cent by 2020. A large contributor was the reduction of emissions during the pandemic. The emissions attributable to the sectors energy and industry went down considerably. Emissions caused by the transport sector, however, remained unchanged at the level of 1990.

In 2020, GHG emissions disproportionately fell in Germany compared to the previous years by 70 million tonnes of CO_2e. The environment agency believes that approximately one third of the reduction is attributable to the pandemic-induced "one-off effect".[9] Germany otherwise would have only been able to reduce GHG emissions by 39 per cent, compared to the base year 1990, thus failing to achieve the national climate goal set for 2020. GHG emissions will probably go up again, with an economy set to recover after the pandemic and no additional climate action taken.

In 2020, the buildings sector went beyond the annual emission budgets permitted under the CCA. The government therefore on 22 September 2021 adopted additional measures (emergency programme, sec. 8 para. 2 CCA).

In August 2021, the Working Group on Energy Balances stated that the energy consumption in Germany in the first half of 2021 was considerably above the previous year's readings. In a study, the bodies responsible grossed up these data to the entire year of 2021 and compared them to the sector goals laid down in the amended CCA. The projection showed that the energy and industry sectors significantly exceeded set annual emission budgets. In sum, the 2021 GHG reduction will likely be 36 per cent, compared to the base year 1990, thus failing to hit the required 42.5 per cent.[10]

The economic ministry at the start of the parliamentary term presented the so-called "opening balance sheet on climate protection".[11] In this document, it confirmed current emission trend projections. The ministry assumes that 2021 GHG emissions are likely to exceed 2020 readings by at least 30 million tonnes of CO_2e. The achievement of the 2020 milestone has thus only been a transitory, mostly pandemic-induced downward trend. The economic ministry expects that the annual emission budgets stipulated by the CCA be violated in 2022 and 2023.

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9 Press release of the environment ministry of 18 March 2021: Greenhouse gas emissions fell 8.7 percent in 2020, https://www.bmuv.de/en/pressrelease/greenhouse-gas-emissions-fell-87-percent-in-2020.

10 To calculate the required annual reduction, the Bundesrechnungshof adopted a linear reduction path starting with the 2020 target (40 per cent GHG emissions cut compared to the base year 1990) and ending with the 2030 target (65 per cent GHG emissions cut compared to the base year 1990).

11 Economic ministry: Germany's current climate action status ("opening balance sheet on climate protection") of 11 January 2022, https://www.bmwk.de/Redaktion/EN/Downloads/E/germany-s-current-climate-action-status.pdf?__blob=publicationFile&v=11.

3 Climate Change Programmes

By considerably stepping up 2030 climate goals and seeking GHG neutrality already in 2045, the government is now forced to take effective action to achieve set climate goals. Given the bifurcation of currently expected and planned GHG emissions, sizeable efforts are to be made to close the "climate gap" in order to achieve 2030 climate goals. As projections show, the government is not able to ensure that these efforts will be successful with climate programmes already adopted.

The new government therefore has to promptly scrutinise all climate programmes and refocus climate change policy. Climate programmes should only encompass projects that contribute to reducing GHG emissions in a verifiable and efficient manner. The government has also to determine clear reduction targets for these projects. By means of a project monitoring, it has to ensure that climate actions actually contribute to achieving set reduction targets. If the emissions do not go down as expected the government needs to adjust to meet the requirements as swiftly as possible by, for example, reshaping climate projects or taking additional steps.

Furthermore, the government must ensure that all climate action is economically viable, while avoiding undue hardships. It is imperative for success that planned transformation processes are broadly accepted.

In the past few years, the government has launched several programmes, each including a variety of projects and measures, to achieve its climate goals.

3.1 Climate Action Programme 2020 fails to achieve goals

In 2014, the environment agency stated that the government is likely to considerably fail to achieve the 2020 climate goal defined in 2007 (40 per cent GHG reduction compared to 1990). In order for the government to close the projected gap and to speed up the reduction of GHG emissions it adopted the Climate Action Programme 2020. The programme encompasses 110 cross-sectoral projects – including funding programmes, tax privileges and regulatory measures. For each project, the government defined a GHG reduction target to be achieved by 2020.

By launching the programme, the government wished to make an additional reduction of 62-78 million tonnes of CO_2e by 2020. It had the individual projects' progress and expected impact examined annually by scientific bodies (so-called quantification reports). The results have been published in the government's Climate Action Reports.

In sum, the Climate Action Programme 2020 in the period 2014-2020 only showed an additional reduction of 42.2-51.7 million tonnes of CO_2e.[12] This is equivalent to two thirds of the planned reduction. It became clear at an early stage that the government would fail to achieve set goals. Annual projections presumed the reduction to hit 37.2-55.1 million tonnes of CO_2e. In 2019, the environment ministry which had lead responsibility at that time arrived at the conclusion that the actual impact of climate actions had been overestimated and the projects had shown an impact later than anticipated. Nevertheless, the government did not modify the Climate Action Programme 2020. The government repeatedly ignored the results of the quantification reports and other GHG reduction projections commissioned by the ministry. The government argued that the calculations were only a rough estimation of the impact as to the target year (ex-ante) and could not replace a detailed and empirically underpinned evaluation of individual projects (ex-post). A full assessment of each project's impact required wider-scale examinations and estimates.

The reduction achieved by the Climate Action Programme 2020 was due to the performance of 8 out of 110 projects. These particularly included the decommissioning of coal-fired power stations and the tightening of European standards, e.g. regarding the European Union Emission Trading System. In the period 2014-2020, 70 projects failed to achieve any reductions. According to the environment ministry, these projects were meant to support the other projects.

3.2 Climate Action Programme 2030 falls short of expectations

In October 2019, the government adopted the Climate Action Programme 2030.[13] The aim is to reduce GHG emissions to 543 million tonnes of CO_2e by 2030 (minus 55 per cent compared to 1990). This was equivalent to the climate goal laid down in the old version of the CCA. The Climate Action Programme 2030 includes 96 emission reduction projects for individual and all sectors, including funding programmes, the introduction of the national emission trading system for the buildings and transport sectors and regulatory measures.

For the various projects, the Climate Action Programme 2030 lays down the planned implementation period and the ministries competent. Reduction targets for the individual projects are not included in the programme. Some projects that had already been part of the Climate Action Programme 2020 were modified. These include, for example, the Energy-Efficient Urban Redevelopment funding programme, funding of organic farming or the local authorities' guideline as to the national climate initiative (NCI). Within the Climate Action Programme 2020, such activities hardly resulted in any reduction.

[12] Environment ministry: Climate Action Report 2021, p. 80, https://www.bmuv.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/klimaschutzbericht_2021_bf.pdf.

[13] Climate Action Programme 2030, https://www.bundesregierung.de/breg-en/issues/climate-action.

According to the environment agency’s provisional data, 2020 emissions hit 729 million tonnes of CO_2e. The Climate Action Programme 2030 aims to reduce GHG emissions to 543 million tonnes of CO_2e. Over the next ten years, the projects launched under the programme are supposed to show reductions amounting to 186 million tonnes of CO_2e. This corresponds to a reduction equivalent to three times the impact achieved by the Climate Action Programme 2020. As the legislator set an even more ambitious goal for 2030 by amending the CCA (438 million tonnes of CO_2e), GHG reductions must now hit 291 million tonnes of CO_2e. This amount accounts for almost 500 per cent of the reduction impact achieved by the Climate Action Programme 2020.

Projections as of January 2020 – which do not take into account the ramifications caused by the pandemic and related economic stimulus packages – show, however, that the Climate Action Programme 2030 will only lead to a reduction of some 125 million tonnes of CO_2e. Hence, Germany will by far fail to achieve its reduction goal set for 2030 – namely by 175.7 million tonnes of CO_2e (cf. table 1).

Table 1

Sector goals and expected GHG emissions in 2030 in million tonnes of CO_2e (as of January 2020)

CCA goals will likely not be achieved by means of the Climate Action Programme 2030.

	Sector goals, CCA	Projected GHG emissions, Climate Action Programme 2030[a]	Gap to CCA goals[b]
Energy	108	186.1	78.1
Industry	118	143.4	25.4
Buildings	67	86.8	19.8
Transport	85	128.4	43.4
Agriculture	56	64.1	8.1
Waste	4	4.9	0.9
Total	438	613.7	175.7

Sources:

[a] Oeko-Institut/Fraunhofer Institute for Systems and Innovation Research ISI (Fraunhofer ISI)/Institute of Ressource Efficiency and Energy Strategies (IREES GmbH), Assessment of the GHG reduction potential of the government’s Climate Action Programme 2030, part of the report on the project “GHG projection: Development of methods and implementation of the EU Effort Sharing Decision in the Projection Report 2019”.

[b] Own calculations.

Four in 96 projects under the Climate Action Programme 2030 alone are likely to show a GHG reduction of 109.4 million tonnes of CO_2e by 2030. These primarily include steps to reduce and phase out coal-based power generation and to further expand the use of renewable energies. According to the environment ministry, many of the other projects (e.g. in the fields of research, consulting or communication) contribute to creating climate-friendly alternatives.

Every two years, the government publishes a projection report on future GHG emission trends. The current report issued in October 2021[14] takes into account all projects adopted by late August 2020. The report shows that Germany will fail to achieve its 2030 and 2040 climate goals without taking additional action (cf. figure 4). The projections on GHG reductions for 2030 (minus 49 per cent compared to 1990) and 2040 (minus 67 per cent) are clearly below target (minus 65 per cent for 2030; minus 88 per cent for 2040). The environment ministry, however, believed that the reliability of this projection is limited. It did not consider new developments such as the Immediate Climate Action Programme for 2022, the emergency programme for the buildings sector and the price hike on allowances under the European Union Emission Trading System in early 2021.

[14] Environment ministry: Projection Report 2021 for Germany, https://www.bmuv.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/projektionsbericht_2021_bf.pdf.

Figure 4

Emission projections are well above trajectory

According to the Projection Report, the reduction targets set for 2030 and 2040 will most likely not be achieved.

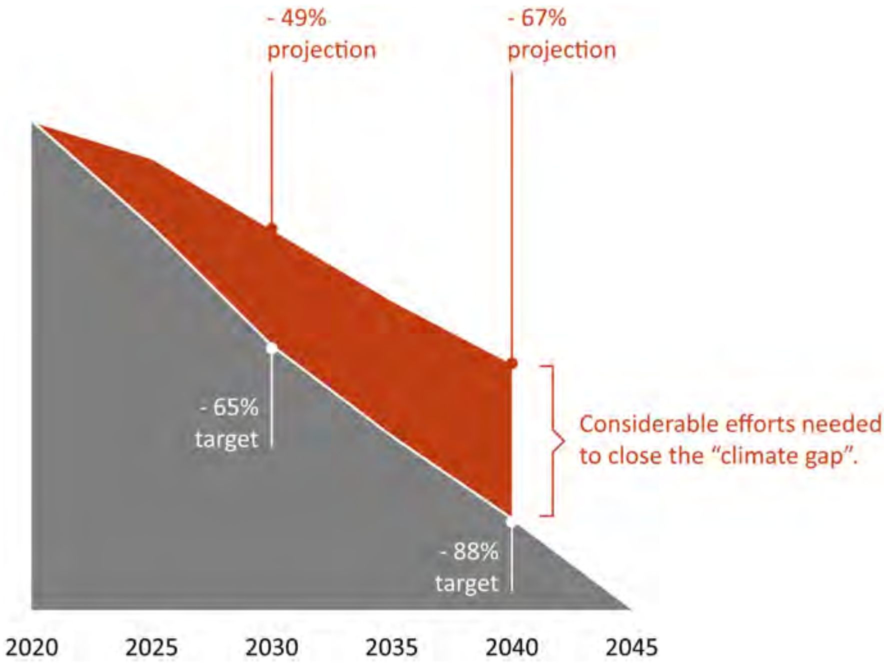

Image: Bundesrechnungshof.

Source: CCA, Projection Report 2021.

Based on the estimates made in the Projection Report, the economic ministry’s opening balance sheet on climate protection also points out that 2030 climate goals will be missed by 195 million tonnes of CO_2e. This is equivalent to a GHG reduction of 50 per cent, instead of 65 per cent compared to 1990 as stipulated by law. In order to avert the risk of missing set goals, the pace of average GHG reduction efforts of currently 15 million tonnes of CO_2e per year needs to increase to more than 40 million tonnes of CO_2e.[15]

With this backdrop, the economic ministry announced it would launch a large variety of projects within its own remit. For example, it planned to massively expand the use of renewable energies and to step up energy efficiency. Moreover, it intended to create new incentives for industry to use climate-friendly technologies. The government is expected to adopt a first package in early 2022 which includes particularly urgent laws and projects. Additionally, the economic ministry announced to further develop the CCA.

[15] Economic ministry: Germany’s current climate action status (“opening balance sheet on climate protection”) of 11 January 2022, https://www.bmwk.de/Redaktion/EN/Downloads/E/germany-s-current-climate-action-status.pdf?__blob=publicationFile&v=11.

3.3 Immediate Climate Action Programme for 2022 without impact projections

Parallel to its efforts to step up climate goals via the amended CCA, the former government in May 2021 adopted a declaration with the title “Climate Pact for Germany“. To implement this pact, the government in June 2021 presented the “Immediate Climate Action Programme for 2022”.

A large number of projects have already been launched under the Immediate Climate Action Programme for 2022. For these projects, the former government planned to give additional funds for 2022. Furthermore, it intended to temporarily increase funding amounts or expand funding programmes to include other funding objects. To a certain extent, the Immediate Climate Action Programme for 2022 only includes non-committal declarations. The former government sought to distribute €8 billion to fund the programme’s projects.

The Immediate Climate Action Programme for 2022 is supposed to contribute to speeding up GHG emissions reduction. The programme did not state to what degree GHG emissions were to be reduced by each project. A projection as to what extent the programme or the projects contribute to reducing GHG emissions has not been tabled yet; however, a projection will be included in the next Climate Action Report in 2022.

3.4 Conclusions of the Bundesrechnungshof

The government needs to link its climate goals and sector-specific reduction targets to individual climate projects, setting GHG reduction requirements for each project. The government’s climate change programmes – short of the Climate Action Programme 2020 – did not include any reduction requirements. As a result, the government is not in the position to identify risks to achieving set goals at an early stage and to take adjustment measures.

Experience as to the Climate Action Programme 2020 suggests that by far not all projects are equally appropriate for reducing GHG emissions. This programme has ultimately failed to achieve set reduction targets. What is more, the environment agency believes that the 96 projects launched under the Climate Action Programme 2030 for the most part will fail to substantially contribute to achieving GHG reduction goals by 2030. This is reflected by projections according to which the government will not even come close to achieving 2030 reduction goals (minus 65 per cent) by means of the Climate Action Programme 2030. One must also take into account that pandemic-induced reductions achieved since 2020 are only an unsustainable, transitory effect. Projections as to 2021 emissions already show that the trend dominant in 2020 was an exception to the rule.

By significantly ratcheting up 2030 climate goals and seeking GHG neutrality already in 2045, the new government is now forced to take effective action to achieve set climate goals. In addition, the CCA provides for annual sector-specific reduction goals which are to be attained by the government. Otherwise, (costly) emergency programmes need to be launched.

As to its climate programmes, the government should therefore rely on projects with a verifiable reduction in carbon emissions. Complementary action should only be included in the climate programmes where warranted by special circumstances.

Clear objectives are also the basis for monitoring as to whether climate action is actually appropriate for achieving GHG reduction goals. If the emissions cannot be reduced as expected the government needs to adjust to meet the requirements as swiftly as possible by, for example, reshaping climate action or taking additional steps. Clear objectives may also make it easier to carry out the concurrent and concluding programme evaluation (Art. 7 of the German Federal Financial Regulations).

3.5 Comments of the environment and finance ministries

The environment ministry concurs with our view that additional efforts need to be made to achieve the CCA climate goals. It agrees with our estimate that the GHG reduction impact of the COVID-19 pandemic will not persist.

It argued that the government had already introduced additional measures to react to the more ambitious new reduction trajectory by launching the Immediate Climate Action Programme for 2022. With its funding policy, the emergency programme prioritised specific sectors in the short term (transport, buildings).

The CCA committed the government to GHG neutrality by 2045. The programmes' projects were supposed to be appropriate for achieving GHG reductions. The environment ministry planned to examine to what extent future climate programmes and emergency programmes needed to communicate as to how they close the "gaps". In general, the ministry believed that an ex-ante estimate of the individual projects' GHG reduction impact was appropriate for assessing the impact of climate action in a reliable and comparable manner. However, the ministry added that such an assessment might not always be feasible or expedient. Moreover, such an assessment was always linked to uncertainties. For example, it hinged upon assumptions as to macroeconomic framework conditions and the speed of implementation.

The ministry further believed that it was not expedient to continuously monitor GHG reductions achieved by individual projects beyond annual climate change reporting, which already provided for a sizeable monitoring of the implementation of measures. Setting reduction goals for individual projects ran counter to the general system of the CCA which provided for annual emission budgets for each sector. Risks to achieving goals could, for example, be identified by means of the projection reports. The costs of monitoring individual projects in detail were in contrast to potential insights. Furthermore, it would not become clear how individual projects interacted with each other – an aspect that was key to the overall analysis.

The finance ministry believed that the task to identify specific reduction and efficiency goals should be tackled more ambitiously. Some projects, however, did not allow that (e.g. in the field of basic research). Additionally, the impact analysis should be further enhanced in the future. Referring to the Immediate Climate Action Programme for 2022, the finance ministry added that major climate policy decisions had not been shaped in detail and implemented due to the then imminent elections to the German parliament.

3.6 Final assessment by the Bundesrechnungshof

With its climate programmes, the government needs to ensure that it adheres to the CCA annual emission budgets that are binding for all sectors by 2030. To this end, it has to define specific GHG reduction goals for all projects under the Climate Action Programme 2030 and the Immediate Climate Action Programme for 2022 – as under the Climate Action Programme 2020. This is also a prerequisite for an appropriate capital expenditure appraisal during the planning stage and for the concurrent and concluding programme evaluation.

The Immediate Climate Action Programme for 2022 does not clearly state how to achieve set GHG reduction goals. Projects are to receive better funding, and funding and framework conditions are to be enhanced. We have considerable doubts that the bodies responsible are in the position to achieve the ambitious climate goals. The Immediate Climate Action Programme for 2022 has been launched in response to the Constitutional Court's "Climate Decision". The Immediate Climate Action Programme for 2022 should have therefore been designed as to be able, hand in hand with the current Climate Action Programme 2030, to achieve the new climate goals.

Paying heed to the value-for-money principle, the new government needs to communicate in a swift and targeted manner which action it will take to achieve climate goals by 2030 and which GHG reductions can be expected from this action. At the same time, the government has to ensure that all climate action is economically viable, while avoiding undue hardships.[16] It is imperative for success that planned transformation processes and the use of climate-friendly technologies are well accepted. To this end, the financial resources of citizens and enterprises should not be stretched.[17]

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16 12 impulses for parliament and government: seizing opportunities in the new electoral term, September 2021, https://www.bundesrechnungshof.de/en/audit-reports/products/opinions-issued-by-the-federal-performance-commissioner/other-opinions-studies/12-impulses-for-parliament-and-government-seizing-opportunities-in-the-new-electoral-term.

17 Federal government's governance of energy transition still inadequate, Special Report of the Bundesrechnungshof as of 31 March 2021, https://www.bundesrechnungshof.de/en/audit-reports/products/special-reports/2021-special-reports/federal-government2019s-governance-of-energy-transition-still-inadequate.

We recommend that future and already endorsed climate action is reviewed. The aim is to direct budget funds earmarked for implementing the climate programmes in a way so as to have the largest impact possible, while observing the value-for-money principle.

Even if a clear distinction needs to be drawn between climate projects with a direct impact and those being supportive in nature, the government should only categorise a project as “climate-friendly” under its climate programmes where such project’s reduction impact is measurable. This does not mean that the government is not allowed to advert to other projects that support climate efforts, such as consulting or educational projects.

Individual projects need to be better monitored and assessed on a regular basis by using a monitoring system in order to ensure that the annual emission budgets and climate goals set forth in the CCA are complied with. This is the only way to make sure that the new government is in the position to speedily and flexibly react to erroneous trends. The Climate Action Programme 2020 shows that it is not only vital to monitor the achievement of goals, but to also react to misdirected developments at an early stage. In the past, the government failed to discontinue projects under this programme that did not show any reduction.

When it comes to monitoring the achievement of goals, we believe that it is not appropriate – as argued by the environment ministry – to only have an eye on the sectors: A targeted climate change policy requires the government to have meaningful information about all individual projects at hand. The government may also use such information to gain insights surrounding the achievement of sector-specific and cross-sectoral reduction goals.

We believe that due to the importance and the far-reaching impact of climate change policy the costs incurred in monitoring individual projects need to be accepted. Only by means of such a monitoring regime, the government is able to develop the sector-specific and cross-sectoral projects required by the CCA in case it needs to take action with a view to mitigating the violation of annual emission budgets via emergency programmes. A key aspect is to pool the information on the various projects’ impact. This will provide a sustainable basis for the government to make climate policy decisions.

4 Climate policy instruments

The government uses several instruments in implementing its climate change policy. These particularly include the national emissions trading system; tax privileges; infrastructure investments; and funding programmes. The instruments may only show the desired effect if they are consistent. They should not be thwarted by other factors falling within the government's realm, such as subsidies potentially harmful to the climate, or the tax system.

Since climate-related funding programmes put significant pressure on the federal budget, such programmes should achieve verifiable GHG reductions. In addition, the new government should consistently focus its funding policy on achieving climate goals in a cost-effective manner. In order for the government to be able to also take into account funding effectiveness (use of funds per tonne of CO_2e abated) in deciding on the implementation or continuation of programmes, it has to base its calculations on a consistent method.

4.1 Mix of instruments has to be consistent

In implementing its climate policy, the government used various instruments: national emissions trading system; direct infrastructure investments; regulations; or information campaigns. To support such measures, the government uses a large number of funding programmes (e.g. aiming at climate-friendly investments at local level; purchase of electric buses; or the energy-efficient renovation of buildings). On top of that, tax legislation has an effect on climate change mitigation efforts.

The climate policy instruments have varying effects on achieving climate goals. What is more, the instruments' individual impact on the federal budget varies as well. Some instruments lead to inflows (e.g. the national emissions trading system which was introduced in early 2021), others to sizeable outflows (e.g. funding programmes).

To support the required transformation processes and to create incentives for climate-friendly investments, the government considerably expanded its climate-related funding activities in the past few years. As to the ECF alone, it increased the number of funding programmes to more than 100. Other funding programmes receive funds from various departmental budgets. Accordingly, the amounts earmarked for this purpose in the federal budget went up.

The government's Immediate Climate Action Programme for 2022 includes many sector-specific and cross-sectoral projects which aim to create consistent framework conditions for climate-related investments. For example, the government suggested reforming the energy system's regime governing taxes, levies and other charges.

Already in 2016, the government committed itself to reducing the number of subsidies that add to the climate crisis (financial assistance and tax privileges, e.g. lower taxes on diesel fuel; reduced VAT on meat and animal products).[18] It reiterated this objective in its current subsidy report in 2021.[19] As yet, the government did not fully examine the fiscal and climate policy impact of such a reduction and also failed to present a reduction trajectory. At international level, Germany repeatedly committed itself to phasing out subsidies that add to the climate crisis by not later than 2025. According to the current subsidy report, the 2021 financial assistance worth €16.2 billion shows a positive relation to the environment and climate goals, which are laid down in the German sustainable development strategy. Concurrently, the environment agency stated that subsidies of €65.4 billion granted in 2018 were to be categorised as being harmful to the environment.[20]

4.2 Climate change funding programmes require clear objectives

All projects under the government's climate programmes, and hence corresponding funding programmes, need to contribute to achieving the climate goals stipulated by the CCA and to reducing GHG emissions. By launching the Climate Action Programme 2030 and the Immediate Climate Action Programme for 2022, the government primarily wishes to fund projects that show an effect in the short term. The plan is to gradually replace these programmes by rules and incentives. In the Immediate Climate Action Programme for 2022, the government reaffirmed that funds are to be used in an “efficient and targeted manner”. It added that the climate-related funding regime was complex. In addition, not all budget funds were used. The government would look into and, where applicable, adapt the funding programmes relevant to climate policy.

Already in March 2017, the government adopted recommendations for action surrounding funding programmes in the “climate/energy” policy field. They were based on a budget analysis (so-called spending review). In practical terms, the government used the budget to more actively push the bodies responsible to efficiently use funds in achieving energy transition and climate goals. According to the recommendations for action, the ministries are to

- define clear targets for funding programmes (e.g. planned GHG reductions or planned energy cuts);
- make sure that target achievement can be measured;

[18] Climate Action Plan 2050, November 2016, p. 73, https://www.bmu.de/fileadmin/Daten_BMU/Pools/Broschueren/klimaschutzplan_2050_en_bf.pdf.

[19] 2019-2022 Subsidy Report as of 18 August 2021, nos. 8, 66, https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Press_Room/Publications/Brochures/28-subsidy-report.html.

[20] Environment agency: Environmentally harmful subsidies in Germany 2021, https://www.umweltbundesamt.de/en/press/pressinformation/environmentally-harmful-subsidies-nearly-half.

- evaluate projects at regular intervals and adapt projects in three-year (or shorter) intervals; and
- primarily finance projects that are most appropriate for funding and show efficiency increases in using funds.

As from 2017, the finance ministry's annual ECF report to the parliamentary Budget Committee (budget committee) is supposed to include – wherever possible and expedient – quantitative data on funding effectiveness (use of funds per tonne of CO_2e abated).

To support the process of government budgeting, the federal ministries since 2019 have to provide information to the finance ministry on all funding programmes that are supposed to contribute to achieving the national CO_2 reduction gaols. This is to make the use of funds less opaque. As to their funding programmes, the ministries are expected to provide information about specific goals and planned impacts (e.g. GHG reductions) as well as funding effectiveness. In order to be able to compare funding programmes by means of these two indicators the same method has to be applied. The finance ministry, however, remains unclear as to which method ministries should apply in calculating GHG reductions or the effectiveness of funding measures. As a result, the ministries are free to choose a method so that the information provided lacks comparability.

4.3 GHG reduction and funding effectiveness as indicators for climate change funding programmes

4.3.1 Funding programmes without GHG reduction goals

A funding programme's GHG reduction potential is informed by various factors. Such factors include funding volume, duration and funding object (e.g. investments in climate-friendly technical assets, climate change plans of municipalities).

In a large number of cases, we found that the bodies responsible failed to set measurable objectives for GHG reductions prior to launching, or when continuing, climate change funding programmes. The funding programmes launched by the economic ministry under the National Energy Efficiency Action Plan are different. In this case, measurable reduction goals have been set. Oftentimes, ministries only referred to the government's overall climate-change objectives. This impedes the evaluation of the programmes. It would take more time and effort to verify the various programmes' achievements.

After examining our audit findings, some ministries added a measurable objective to the funding guidelines, especially where investments were to be funded. However, it was impossible to compare the various funding programmes by means of the planned GHG reduction as underlying calculations used different methods.

The finance ministry reviewed the data submitted by the ministries during the annual budget preparation procedure since 2019:

- For some funding programmes, data has not been submitted.
- For the most part, the ministries did not communicate planned GHG reductions.
- The data on planned GHG reductions had not been comparable as the ministries used different methods in calculating such reductions.

For the 2019-2021 period, the ministries communicated specific GHG reduction goals in only ten cases. For more than 90 per cent of the funding programmes, the finance ministry had no data on the ministries' GHG reduction goals. The finance ministry did not address the issue, but left the procedure unchanged. In sum, the data submitted so far has no effect on the preparation of the budget.

According to the Climate Action Programme 2030, the ECF is supposed to remain the central funding vehicle for energy transition and climate change mitigation in Germany, and the expenditures listed herein should be focused more closely on the core mission, which is GHG reduction.[21] The 2019 ECF report only showed the GHG reduction achieved by one funding programme. In the 2020 report, it remained unclear in 80 per cent of the programme titles (41 of 52) as to whether and to which extent the use of funds contributed to reducing GHG emissions. As to the lack of data, the ministries stated that, for example, funding was not focused on GHG reductions, evaluation results were not yet available or GHG reductions could not be presented or quantified in a meaningful manner. Where ministries provided data on the GHG reductions achieved such data could not be compared due to varying calculation methods.

4.3.2 Funding effectiveness is yet no gauge for funding programmes

Through our audits and interviews, we found that the environment ministry failed to set funding effectiveness targets prior to launching, or in continuing, funding programmes. It argued, for example, that funding objects proved complex. Where the environment ministry's funding guidelines included a funding effectiveness target it was based on different calculation methods.

The economic ministry also failed to set funding effectiveness targets for individual projects. It believed that it was necessary to begin with developing an appropriate formula to calculate funding effectiveness on the basis of the finance ministry's general requirement. It soon became clear that the calculation is very complex in methodological terms. Furthermore, the informative value of the calculated funding effectiveness could vary immensely depending on the data set, calculation method and a programme's addressees. The funding effectiveness was a significant indicator for assessment and control activities, which, however, had always to be contemplated together with the remaining framework

[21] Climate Action Programme 2030, https://www.bundesregierung.de/breg-en/issues/climate-action.

conditions. The economic ministry does not have a consistent basis for comparing and assessing the effectiveness and efficiency of its various funding programmes. It rather uses different methods in calculating an individual action's funding effectiveness. By means of this indicator, the ministry therefore is currently not in the position to adequately identify the actions that are especially cost-effective in terms of bringing down energy consumption. We communicated our audit findings to the German parliament through our annual report of last year.[22] The parliamentary Public Accounts Committee endorsed our view on this matter. The committee expects that the economic ministry having responsibility for energy transition engages with the finance ministry to develop a consistent and coherent calculation method. It should also be ensured that such consistent calculation method is used by the other ministries' funding programmes that directly or indirectly contribute to achieving the national GHG reduction goals. The economic ministry hereafter has to establish clear assessment criteria for funding decisions. The key aspect should be that the programmes verifiably contribute to bringing down energy consumption and reducing GHG emissions, while showing a favourable relation between reductions achieved and budget funds used. The result of this assessment should be available in the budget preparation procedure and provide the basis for continuing, adjusting or phasing out an energy savings programme.

We also found that in the 2019-2021 period the bodies responsible for an average of 80 per cent of ECF titles did not provide any data on the expected/achieved funding effectiveness, neither in preparing the budget (ex ante) nor in the ECF report (ex post). Where data was at hand such data was calculated using different methods and could not be compared. Already in early 2019, the finance ministry was critical towards the data available on funding effectiveness. As such data was considered unreliable, it could not serve as a basis for conclusions as to the federal budget. The aim to focus funding efforts on projects having a maximum impact was hence not achieved.

4.4 Conclusions of the Bundesrechnungshof

To achieve climate goals, the bodies responsible need to ensure that the various climate policy instruments perfectly dovetail with each other. The instruments may only show the desired effect if they are consistent. They should not be thwarted by other factors falling within the government's realm, such as financial assistance potentially harmful to the climate, or the tax system. The government should therefore reduce financial assistance that is harmful to the climate in a timely manner and bring fees, levies, charges and taxes under the energy system consistently in line with climate goals. We believe that this overarching action is a vital step in propelling the required transformation processes and creating financial leeway for additional effective climate action.

[22] Cf. Annual Report 2021, No. 34, Economic Ministry fails to assess the impact of its various multi-billion euro energy saving programmes, https://www.bundesrechnungshof.de/en/audit-reports/products/annual-reports/2021-annual-report/audit-findings-on-federal-government-departments/general-fiscal-administration/2021-34.

Funding programmes are linked to considerable burdens on the federal budget. In appropriating budget funds, the legislator needs to have confidence that the expenditures have to be incurred for achieving set goals and that the government will use the funds efficiently and economically. Climate change funding programmes launched by the government should contribute to reducing GHG emissions in an effective and efficient manner. The government should only use this costly instrument where it verifiably proves efficient compared to other instruments. To monitor this, the government needs to have reliable information. Currently, such information is not at hand. We are critical towards the fact that the ministries hardly reacted to the finance ministry's efforts surrounding the recommendations for action laid down in the spending review.

For most of the funding programmes, the government failed to set funding effectiveness and GHG reduction targets. Additionally, it first and foremost funds projects which are not amenable to the quantification of potential GHG reductions or which do not target GHG reductions (e.g. complementary action such as campaigns or research).

Where the ministries had set targets for both indicators (GHG reductions and funding effectiveness) they often used different methods. Therefore, interdepartmental comparisons between the various funding programmes to draw conclusions as to the continuation, reshaping or termination of a programme, are not possible. As a result, the risk is high that funds are channelled into programmes that prove ineffective or inefficient in mitigating climate change, and that achieving climate goals is made unnecessarily costly.

A factor contributing to this was the fact that the finance ministry did not clearly indicate to the other ministries as to how they should calculate GHG reductions and funding effectiveness. The finance ministry should have also made clear to the other ministries that the government supports the findings laid down in the spending review and thus the recommendations for action.

Hence, the new government should, as a rule, set GHG reduction goals and funding effectiveness targets for funding programmes on the basis of a consistent method. In the future, all ministries should make available complete and comparable information about the planned and actual GHG reductions, and – in isolated cases – about the funding effectiveness achieved by their projects. Such information should be taken into account when preparing the new federal budget.

4.5 Comments of the environment and finance ministries

The finance ministry stressed that the Climate Action Programme 2030 represents a well-rounded mix of regulatory and funding actions. It concurred with our view that funding programmes should only have a subsidiary function vis-à-vis other instruments. The role of funding policies in achieving GHG reduction goals must not be overestimated. Instead, CO_2 pricing was a particularly effective instrument which also generates inflows, not outflows. The ministry added that there were already plans to review the projects under the

Climate Action Programme 2030, including funding programmes. The adverse effect of subsidies on the climate was assessed on a regular basis and communicated every two years via the subsidy report. The government was aware of the need for action in reducing such subsidies and in bringing levies, charges and taxes under the energy system in line with climate goals. Although the finance ministry had all relevant information on tax subsidies at hand, the political majority to initiate substantial changes had not been reached yet.

The environment ministry stated that policy makers defined various objectives in prioritising climate change measures. It concurred with our view – as also did the finance ministry – that GHG emission projections are a key element in this context.

Both the environment and finance ministries shared our opinion that the bodies responsible should ensure more ambitiously a consistent presentation and specification of reduction and effectiveness goals. The environment ministry was convinced that this was a prerequisite for the ability to assess the effectiveness of climate actions in a reliable and comparable manner. However, a ranking pursuant to these criteria could only reasonably contribute to decision-making, if the reduction achieved by the various projects was gauged on the basis of comparable data. The ministry determined quantifiable reduction goals for some of its NCI programmes. Moreover, it quantified the funding effectiveness surrounding NCI on the basis of a consistent method.

Both the environment and finance ministries underlined that GHG reduction is not the only criterion in selecting funding programmes. The environment ministry emphasised that it was true that climate change projects must be an appropriate means for reducing GHG emissions as the CCA commits the government to the achievement of GHG neutrality by 2045. However, the selection criteria also included social aspects or the projects' individual incentive effect. The finance ministry believed that funding programmes were about financial incentives and target group-related support and aimed at assisting in avoiding emissions harmful to the climate. The announced shift to regulatory measures would make it possible to swiftly make adjustments and to avoid long-term subsidies. However, this announcement triggered reservations among the ministries. A special challenge was the evaluation of climate actions that did not directly lead to GHG reductions (e.g. research and development projects, measures to raise awareness). Such measures could indirectly contribute to climate change mitigation in the long term.

As stated by the environment ministry, funding effectiveness could be a meaningful, but not absolute, selection criterion especially in the case of investment measures. Since mitigation costs fluctuated greatly between sectors, funding effectiveness varied as well. In the case of non-investment measures, quantifying funding effectiveness was generally a difficult task. Therefore, the environment ministry developed the quality criterion "contribution to transformation" on GHG neutrality.

The finance ministry spoke out against with our view that it failed to adequately react to the ministries' failure to provide information on GHG reductions and the funding effectiveness. It included the items "funding target", "target achievement" and "funding effectiveness" into the 2020 ECF report. On top, it requested the other ministries to provide detailed reasons if they were unable to provide data on the funding effectiveness. The finance ministry pledged to make further efforts to quantify and present funding effectiveness on the basis of a consistent and mandatory method. So far, its efforts had been thwarted by the resistance of the other ministries. The duty to provide information fell within the responsibility of the ministries and was not subject to the finance ministry's supervision. The CCA did not include any legally binding requirements as to assessing climate action either. As a result, each ministry used a different method. The finance ministry reaffirmed its intention to develop a cross-sectoral ranking on cost-effectiveness for those funding programmes that directly target GHG reductions.

4.6 Final assessment by the Bundesrechnungshof

Both the environment and the finance ministry largely concurred with our views as to several shortcomings in implementing climate policy through funding programmes. In particular, they shared our view that

- the bodies responsible should set measurable GHG reduction targets for funding programmes;
- funding effectiveness should be considered in appropriate cases, and that funding programmes should generally be efficient; and
- consistent methods for calculating anticipated GHG reductions (ex-ante estimate) and funding effectiveness were necessary.

It cannot be assessed as to whether the Climate Action Programme 2030 represents a "well-rounded mix" of regulatory and funding actions as long as the government fails to set measurable GHG reduction targets for the various projects. Another decisive factor is the answer to the question as to how the government implements the various projects (funding programmes, CO_2 pricing etc.) and how fast subsidies that add to the climate crisis are reduced.

We do not call into question that the government, alongside GHG reductions and funding effectiveness, has the right to set additional goals in selecting and prioritising climate projects (especially economic and social goals). However, funding programmes – as all measures included in climate programmes (sec. 9 CCA) – have to adduce proof of having contributed to reducing GHG emissions and thus to achieving CCA climate goals. The fact that, in defiance of the finance ministry's efforts, many funding programmes do not provide any data on expected or achieved GHG reductions, is, however, a clear indication that the government's funding programmes have not been adequately reshaped as to verifiably contribute to reducing GHG emissions. The ministries' statements in which they give reasons for not providing data underline this view. According to the statements, a large number of programmes, at best, still only indirectly contribute to reducing GHG emissions. We perceive the risk that the government does not use funds effectively in combating climate change.[23]

We consider it vital that the bodies responsible define a consistent method to calculate the indicator "funding effectiveness" for funding programmes. This would lay the groundwork for comparing and assessing the effectiveness and efficiency of funding programmes. Concurrently, it would become clearer as to why certain funding programmes have been launched. In addition, the new government should define assessment criteria on which to base their funding decisions in order to ensure that budget funds efficiently contribute to climate change mitigation. However, in this context, we wish to underline that in our view the funding effectiveness criterion is a key, but not absolute, selection criterion for funding programmes.[24]

Due to the additional burdens on the federal budget, the new government should use funding programmes in implementing climate action only if other instruments are not available or the use of such instruments would be inefficient. Above all, it should implement the overarching measures laid down in the Immediate Climate Action Programme for 2022 in a timely manner. In our opinion, the review of the climate-related funding process, the reduction of subsidies that are harmful to the climate and the reform of the energy system's regime governing taxes, levies and other charges should take precedence. This would enable the government to put an end to undesired adverse effects in achieving climate goals and to create financial leeway for additional effective climate action.

5 Whole-of-government coordination

In order for the government to achieve set climate goals it needs to act in a decisive and swift manner. To this effect, the ministries' activities must be closely coordinated. This is true irrespective of how the new government tackles climate change. The fact that all federal ministries and entities have to address climate change has not been sufficiently taken into account yet.

5.1 Climate committee only met once

The climate committee was to ensure that the 2030 climate goals are met. The former government declared that the climate committee was a high-ranking panel to strengthen

[23] 12 impulses for parliament and government: seizing opportunities in the new electoral term, September 2021, https://www.bundesrechnungshof.de/en/audit-reports/products/opinions-issued-by-the-federal-performance-commissioner/other-opinions-studies/12-impulses-for-parliament-and-government-seizing-opportunities-in-the-new-electoral-term.

[24] Cf. footnote 22.

and politically control its climate actions. Pursuant to the coalition agreement concluded by the parties forming the new government, the climate committee will continue its work.

In the previous parliamentary term, the climate committee consisted of the Federal Chancellor and the following six ministries: environment ministry; finance ministry; Federal Ministry for Economic Affairs and Energy; Federal Ministry of the Interior, Building and Community; Federal Ministry of Transport and Digital Infrastructure; and Federal Ministry of Food and Agriculture.[25] The plan was to meet once per year. The meeting was scheduled for late summer (following the presentation of the immediate action programmes pursuant to sec. 8 CCA).

In 2020, the climate committee met once. The agenda did not encompass current emissions and the progress made in reducing GHG emissions. The ministries were only supposed to report on the achievements falling within their individual remits (e.g. the increase in EV registrations or the adoption of the national strategy on hydrogen). In 2021, the climate committee did not meet at all.

The committee's meetings were to be organised by the state secretaries of the ministries represented in the committee (commission of state secretaries).

In May 2020, the commission of state secretaries deliberated on the two expert opinions which included the projected GHG reduction impact of the Climate Action Programme 2030. According to the opinions, all sectors had to achieve additional GHG reductions, especially the buildings and transport sectors. The commission decided that the agenda of the next climate committee meeting should not include a discussion on quantitative mitigation commitments. Instead, qualitative messages were to be presented as to how the government also used the path to end the crisis for stimulating the achievement of climate goals. In July 2020, the environment ministry reiterated its view at the meeting of the commission that the climate committee should initiate a qualitative discussion which was to emphasise the progress in climate change mitigation, and not a quantitative debate on the achievement of targets. It recommended avoiding detailed debates on volumes of GHG emissions.

The climate committee decided that the heads of the ministries' sub-divisions competent should meet at regular intervals, e.g. every three months. This was, for example, to assist the climate committee and the commission of state secretaries.

At four months intervals, the environment ministry requested the ministries to communicate the implementation progress of the projects launched under the Climate Action Programme 2030 ('not launched'; 'planned'; 'consultation ongoing'; 'in progress'; 'implemented'; or 'finalised'). In June 2020, the ministry for the first time prepared an overview, updating it

[25] The head of the Federal Chancellery and the government's spokesman were also members of the committee.

several times. The overview did not encompass any data on GHG reductions achieved so far by the various projects under the Climate Action Programme 2030.

5.2 Conclusions of the Bundesrechnungshof

The climate committee established by the government was unable to comply with its mission which was to monitor compliance with 2030 climate goals. It did not have a genuine controlling and monitoring function. If the climate committee is to exercise such a function the new government above all needs to endow it with significant powers.

A coordinating body such as the climate committee would have to meet at regular intervals in order to be able to monitor the implementation of climate policy. For example, at a meeting, it could delve into the Council of Experts' assessment on the previous year's emission data established by the environment agency. Such assessment is made available by mid-April. It would thus be in the position to look into achieved impacts at an early stage, to identify the need for readjustments and to set appropriate priorities. So far, the committee has failed to give sufficient attention to the trend in GHG reductions. This task was actually left to the ministries. The process of publishing key government reports on climate change mitigation could also be monitored by the committee.

What is more, the committee did not have at hand the information it needs to decide on readjustments to adopted climate actions. The environment ministry's overview on the implementation progress of the Climate Action Programme 2030 would at any rate be inappropriate since it did not encompass data on achieved GHG reductions, but only described the progress in project implementation.

5.3 Comments of the environment ministry

The environment ministry in principle was of the opinion that climate actions already were subject to monitoring and controlling. Our recommendations offered, however, an impetus toward enhancing existing control systems.

The environment ministry supported the climate committee. The committee should be endowed with additional powers and competencies. The ministry supported the proposal to have the committee look into the previous year's emissions data and its assessment by the Council of Experts at an early stage. The committee should also at every meeting view current information on the programme's implementation progress. It added that the recording of the implementation progress was supposed to be "quality checked".

The environment ministry pointed out that the climate committee's mandate (facilitating the legally binding implementation of the Climate Action Plan and the climate goals mandatory for Germany) did not expressly include a control function, with the committee only having the right to do preparatory work for the government prior to decision-making.

Steps might include adopting rules of procedure for the committee comparable to those already in place for other cabinet committees.

The ministry believed that the climate committee and the commission of state secretaries generally had all information at hand required to decide on the design and readjustment of climate projects. In March 2021, for example, the commission of state secretaries received information surrounding the emissions data established by the environment agency. As for the implementation progress of the Climate Action Programme 2030, the committee's and commission's agendas showed various challenges (e.g. market launch of hydrogen and electric mobility). Experience suggested that the selection of other priorities was based on political decisions.

5.4 Final assessment by the Bundesrechnungshof

Due to the issue's significance and the increasing need for action, it is indispensable that the climate actions of all ministries be coordinated. This is true irrespective of how the new government tackles climate change.

In order that coordination efforts are successful, meaningful information on the impact of the ministries' individual projects needs to be consolidated at a central location. The overviews on the implementation progress made by the Climate Action Programme 2030 are only a first step. A detailed synopsis of all projects is the only appropriate basis to verify if and how a readjustment is necessary to achieve set climate goals. Such synopsis should show all projects currently in progress, including those launched under the Immediate Climate Action Programme for 2022 or the emergency programme for the buildings sector. The synopsis is also to encompass the various projects' GHG reduction targets and the current state of target achievement.

Provided that the government decides to strengthen the climate committee we advocate the environment ministry's proposal to clearly define – e.g. by rules of procedure – the committee's mandate.

6 National reporting on climate action

Decision-making relative to climate change mitigation requires that at any given point in time complete and current information on the path towards achieving set goals is available. Comprehensive and meaningful reporting is the backbone to the climate action monitoring and control system.

The government is of the view that the Climate Action Report, which has also been sent to the German parliament, is a key climate policy monitoring instrument. This view, however, does not fully reflect reality. The Climate Action Report does not include key information such as the GHG reductions already achieved by, or expected for, the various projects.

To be able to perform its legislative function and its monitoring tasks vis-à-vis the government, the parliament is dependent on a complete, current and transparent presentation of projects.

Germany has to adhere to numerous climate change reporting duties at international and European level. This is complemented by national reporting duties laid down in the CCA – such as the environment agency's report on the previous year's emissions (sec. 5 para. 1 CCA), the Climate Projection Report (sec. 10 para. 2 CCA) or the Climate Action Report (sec. 10 para. 1 CCA).

6.1 Annual Climate Action Report lacks information on target achievement

As from 2015, the government once per year produces a Climate Action Report to provide information about the implementation of its climate action. Since 2019, it has the statutory obligation to do so. The Climate Action Report provides information about

- GHG emission trends in the various sectors;
- the state of implementation of the climate change mitigation and emergency programmes; and
- projected GHG reduction impacts.

The Climate Action Report's purpose is to provide information to the German parliament at an early stage. In preparing the report, the environment ministry relies on all ministries that implement climate change projects.

In the government's opinion, the Climate Action Report is a key monitoring instrument regarding emission trends and climate programmes. Furthermore, it wants to use this report as a starting point to reshaping its climate policy.

The Climate Action Reports published so far did not include any information on the impact achieved by climate change projects. The relevant data, however, was available to the government. It routinely entrusted bodies responsible with carrying out scientific impact assessments on individual programmes and projects. Additionally, some ministries continuously collect and document such data via internal monitoring systems.

6.2 Conclusions of the Bundesrechnungshof

We do not see how the Climate Action Report can be used as a key monitoring instrument regarding emission trends and climate programmes. It cannot be used to make adjustments to individual projects on emission reductions in a timely manner. To this end, the report would have to include both the impacts so far achieved by current climate actions as well as projections as to anticipated GHG reductions. Such data is available at the ministries. On top of that, every two years, projections are prepared for the Climate Projection Report. The Climate Action Report should be supplemented by such information. This would enable the parliament – the report's major addressee – to recognise the need for action on climate change.

We cannot see why the government repeatedly dissociated itself from the scientific impact assessments it commissioned. If the government wishes to effectively refocus its climate change policy it should at least take into account such information in decision-making. As a matter of fact, the CCA expressly provides for carrying out scientific impact assessments as to individual programmes and projects (sec. 9 para. 2 CCA).

6.3 Comments of the environment and finance ministries

The environment ministry stated that the Climate Action Reports had been designed to only inform about the implementation of the Climate Action Programme 2020. They therefore, until 2020, only included data on the various projects' anticipated reductions. In November 2021, the government adopted the 2021 Climate Action Report on the year 2020. This report for the first time showed projected GHG reduction impacts as to current projects. It for this purpose reiterated the results presented in the Climate Projection Report 2021. The latter report showed the reduction impacts of all projects adopted by August 2020 in the various sectors, including the projects launched under the Climate Action Programme 2030.

The purpose of the Climate Action Report was laid down in the CCA. The report was supposed to encompass the sectors' GHG emission trends, the state of implementation of the projects pursuant to sec. 9 CCA and the emergency programmes pursuant to sec. 8 CCA, and projections as to the anticipated GHG reductions. The Climate Action Report as a result was an appropriate means to reach the required steering effect.

The finance ministry advocated the enhancement of reporting in order to be able to coherently present detailed information on climate change expenditures and the achievement of climate goals.

6.4 Final assessment by the Bundesrechnungshof

We consider it vital that the government enhanced the Climate Action Report's status, planning to include, as from 2021, a projection as to its projects' GHG reduction impacts for the years 2030 and 2040. However, this presentation currently focuses on the development in the sectors and, when it comes to the individual project, only makes a general reference to the Climate Projection Report. As the Climate Projection Report is prepared on a biannual basis only, projections at present are not available each year.

Similarly, the Climate Action Report currently presents GHG reductions achieved so far exclusively in form of a total amount covering all projects at sector level. The report does not include data on individual climate projects, but describes the state of implementation only.

The experience gained from the Climate Action Programme 2020 suggests that the government in the past considerably overestimated the reduction impacts of numerous climate projects. This becomes apparent in the quantification reports. We therefore believe it necessary that the new government communicates planned, estimated and achieved GHG reductions of all climate projects through the Climate Action Report. It should be the aim to redesign the Climate Action Report to become a central and transparent information tool for parliament and the public.

7 Climate budget

In the years to come, funding climate change mitigation will pose significant financial challenges to the budget. It is therefore indispensable to have a comprehensive knowledge of all budget inflows and outflows having an adverse or benign impact on achieving climate goals. Budgetary policy should be inextricably linked to climate change policy ("climate budget"). To achieve this, the new government should analyse and assess all inflows and outflows as to their contribution to climate protection efforts (climate tracking). In this context, subsidies that add to the climate crisis are also to be taken into account. By doing so, the government would be able to enhance the federal budget's effectiveness and to identify conflicts of targets.

Climate change expenditures are borne by the ECF and a large number of departmental budgets. The government failed to lay down unambiguous guidance as to the allocation of expenditures to the federal budget and the ECF respectively. As a result, government spending remained largely opaque. Moreover, the expenditures shown in the ECF have neither been managed efficiently nor been used effectively in bringing down GHG emissions. The ECF's reserve has rather increased in recent years to hit €31.5 billion in 2020. This indicates that the implementation of climate programmes that were to be funded via the ECF is a severe issue.

We acknowledge that the new government intends to further develop the ECF to become the CTF. We assume that it will be impossible to allocate all inflows and outflows linked to climate action to an individual departmental budget or special fund. The new government should therefore, in designing the CTF, ensure that it does not repeat the mistakes it made in defining the ECF's scope and in managing the special fund.

The government anticipates that by 2030 it will need to deploy budget funds in the range of hundreds of billions to achieve climate goals in Germany. The loss of tax revenue and expenses attributable to the Climate Action Programme 2030 will be match-funded through national emissions trading. Annually, the government grants funding to subsidies that add to the climate crisis worth billions of euros.[26] What is more, there is the risk of additional burdens on the budget running into billions, if the government fails to comply with European climate goals.[27]

We found that the government does not have comprehensive information about the impact of its climate actions on the federal budget. At present, the finance ministry reports to the

[26] Cf. footnote 20.

[27] Outside the scope of European emissions trading, each EU member state receives emission allocations from the EU Commission in the amount of the maximum permissible GHG emissions. If these emissions are exceeded, the affected EU member state must purchase emission allocations from other EU member states (cf. final audit report of the Bundesrechnungshof as of 13 November 2020, https://www.bundesrechnungshof.de/en/audit-reports/products/management-letters/purchase-of-emission-allowances-under-the-eu2019s-effort-sharing-decision).

Budget Committee once per year solely on the use of the funds included in the ECF (ECF report).

The government was unable to (fully) respond to several parliamentary requests surrounding climate change-related budget outflows. The requests related to, for example, the various projects under the Climate Action Programme 2030 and the Climate Action Programme 2030. In a response, the government referred to the annual Climate Action Reports which, however, did not include a complete set of data.

Following a parliamentary request, the government for the 2020-2024 period disclosed planned climate change expenditures of €151 billion, of which €83.8 billion were included in six ministries' departmental budgets and €67.2 billion in the ECF's budget. The calculation was based on climate change expenditures in a broader sense, which also encompassed expenditures on international climate actions and studies. The total amount also included an increase in the Deutsche Bahn AG's equity of €11 billion, which had been endorsed when adopting the Climate Action Programme 2030. In the information provided, the government did not take into account the revenue shortfall probably resulting from the tax cuts and other relief measures stipulated by the Climate Action Programme 2030.

7.1 Introduction of climate tracking

Thus far, the government has no plans to introduce a mechanism to track climate change-related budget inflows and outflows ("climate budget"). The finance ministry is of the opinion that such a "green budgeting" mechanism would conflict with German budgetary law. Above all, fixed expense ratios for climate change projects were to be rejected. The government only seeks to create a higher degree of transparency when it comes to gauging the efficiency of GHG reduction projects. To this end, it intends to implement the recommendations for action laid down in the spending review relative to climate and energy.

At international and European level as well as in individual countries, the bodies responsible already introduced a large number of mechanisms to record and track the effects of climate policies on public budgets (called climate tracking, or similar).[28] Such mechanisms have varying objectives.

For example, the Organisation for Economic Co-Operation and Development, OECD, introduced the so-called Rio marker system back in 1998. A scoring system of three values is used, in which the member states' finance activities are marked as either (i) targeting climate change adaptation and mitigation as a "principal" objective (score 2); (ii) as a

[28] i.e. World Bank and on EU level; within Europe in France, Ireland and Norway, outside Europe in Chile, Nepal, Mexico, Bangladesh, Indonesia, the Philippines and in the Canadian province of British Columbia.

"significant" objective (score 1); or (iii) not targeting climate change adaptation and mitigation (score 0).[29]

In 2014, the EU Commission likewise introduced a mechanism to mark and track climate change expenditures. This mechanism draws on the OECD's Rio marker methodology. However, the EU climate coefficients[30] are not geared towards the intended effect, but are meant to reflect the extent to which climate considerations have been integrated into a projects design.[31] The EU Commission reports on planned climate change expenditures at the annual presentation of the draft general budget.

France's "climate budget" may serve as another example. With the enactment of the budget law for 2021, France introduced a "green budget". The green budget is to provide transparent information on the environment to policy makers and the public. To this end, the general budget, including the tax system, is analysed with respect to impacts on the environment. Each ministry reviews all expenditure items at programme level to decide as to whether they have a benign, neutral or adverse effect on the various environmental dimensions. To identify adverse effects of expenditures on climate change mitigation is one of the most important aspects of the French "green budget".

As an overarching measure under the Climate Action Programme 2030, the government set up a sustainable finance committee. The committee recommended, for example, that monitoring and annual reporting activities on climate change investments supported by the budget be carried out on the basis of a climate tracking mechanism.

7.2 ECF: Funds earmarked for climate change mitigation remained unspent

According to the government's intent, the ECF was supposed to be the central funding vehicle for climate change mitigation and be focused on the key task of reducing GHG emissions. The government wished to use the ECF for additional programme measures in the climate and energy policy area. An additional measure is a measure that has not yet been included in the federal budget or the financial plan (Art. 2 of the Law on the Establishment of an 'Energy and Climate' Special Fund). Other criteria do not exist. Therefore, costs of projects aiming at reducing GHG emissions, climate adaptation measures or international climate actions have been funded through both the ministries' departmental budgets and the ECF. Since 2013, the government also has used ECF funds to finance the electricity price

[29] OECD, OECD DAC Rio Markers for Climate, https://www.oecd.org/dac/environment-development/Revised%20climate%20marker%20handbook_FINAL.pdf.

[30] EU climate coefficients: To track the EU budget expenditure, the Commission uses the EU climate coefficients. The methodology consists of assigning a coefficient of 0%, 40% or 100% to each intervention to reflect the extent to which climate considerations have been integrated into its design.

[31] Article 8 of the Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1303&from=de.

compensation to electricity-intensive enterprises and, as from 2021, the payments granted to lower the EEG surcharge as well as the compensation paid to operators of coal-fired power plants. Repeatedly, titles have been transferred from the departmental budgets to the ECF, and vice versa. The criteria for this have not been disclosed, neither in the records that justify the budgetary expenditures proposed nor in the ECF reports.

At the time of our 2021 audit work, seven ministries managed titles within the ECF. As a matter of principle, unspent funds go into the ECF reserve at the end of a budget year (Art. 5 EKFG). By the end of 2020, the reserve totalled €31.5 billion.

Programme expenditures planned under the ECF surged from €0.3 billion in 2011 to €26.5 billion in 2021. In average, almost 40 per cent remained unspent. The ministries for many years have overestimated the need for funds required by individual projects. We repeatedly expressed our concerns about this to the ministries.

The new government intends to reshape the ECF to become the CTF. The German parliament decided to allow that credit authorisations worth €60 billion that have already been included in the budget, but remained unused are allocated to the ECF via a second 2021 supplementary budget. Such funds will go into the ECF reserve. The new government intends to step up its efforts to pool national and international climate change projects and those aiming at the transformation of the economy within the future CTF. Relative to the 2022 federal budget, it plans to examine as to how the CTF can be further enhanced, while paying due regard to constitutional requirements.

7.3 Conclusions of the Bundesrechnungshof

For the government to achieve set climate goals it will need to spend enormous funds in the decades to come. We assume that this will weigh heavily on the federal budget – even given the inflows from the European and national emission trading systems. If climate goals are not achieved the risk of additional costs will considerably increase.

In order to limit the burden on the federal budget and to find a way to efficiently use budget funds on climate change mitigation, the government needs to have comprehensive knowledge of its climate programmes, especially regarding the relation of (expected) emission reduction and budget outflows. Currently, however, the government does not have such knowledge on the matter. The fact that the budgetary impact of the projects under the Climate Action Programme 2020 or 2030 are not known to the government is emblematic of this issue. The inadequate responses provided by the government to various parliamentary requests surrounding climate change expenditures reflect the need for action.

In order to enhance fiscal transparency and to dovetail budget policy more neatly with climate change policy ("climate budget"), the new government could develop a mechanism that allows to identify all expenses linked to climate change and the impact of such expenses on achieving climate goals. This includes identifying subsidies that are harmful to the climate. At international level, Germany committed itself to discontinuing such subsidies by not later than 2025. Subsidies curtail the impact of climate action and push up costs incurred to achieve climate goals. Subsidy expenditures are also allocated to several departmental budgets.

A “climate budget” may be based on a climate tracking mechanism. This mechanism should see to it that all federal ministries, in drawing up the budget, categorise expenditure items in line with their relevance to achieving climate goals (e.g. neutral, (partly) positive, (partly) harmful; cf. figure 5).

Figure 5

Climate tracking enhances budget transparency

The programmes launched to achieve climate goals should be analysed and assessed in a systematic manner in order to be able to identify the impact of climate action and to take appropriate adjustment measures.

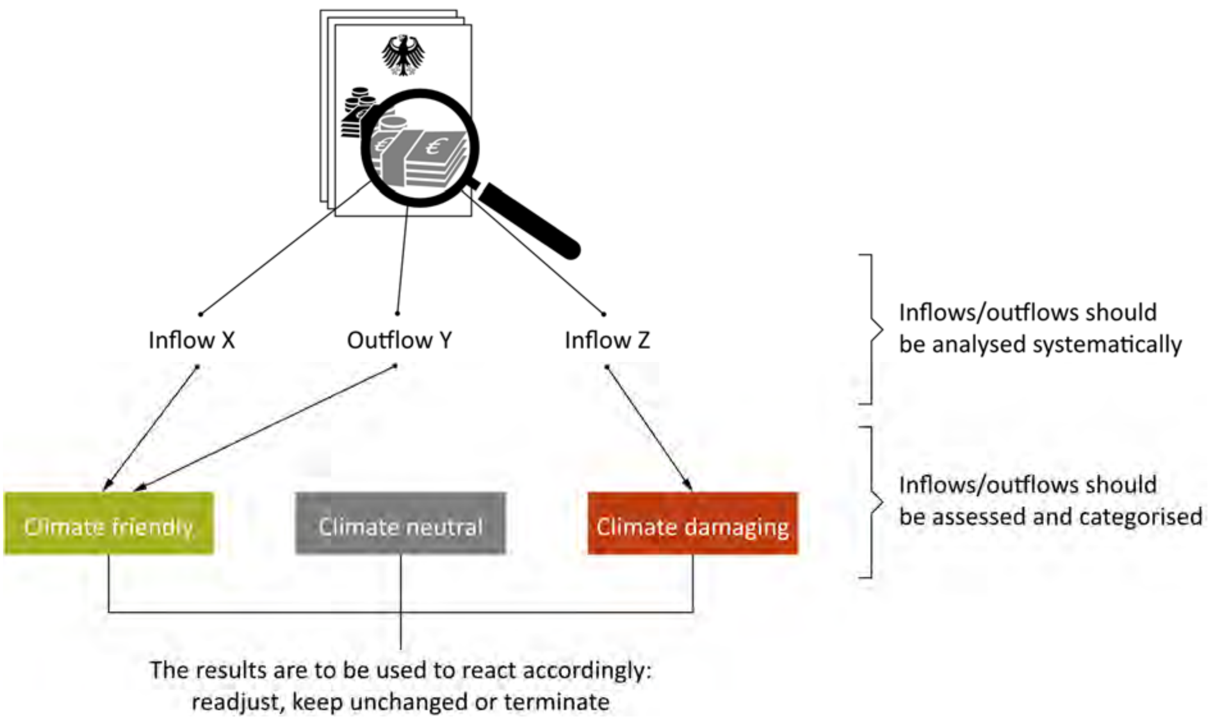

Image: Bundesrechnungshof.

In our view, an adequate climate tracking mechanism may

- give proof that international commitments on climate funding have been met;
- help that outflows are increasingly used for achieving climate goals;
- enhance the transparency of climate change expenditures for policy makers and the public; and
- help to clearly delimit expenses contributing to climate protection and climate adaptation from expenses having an adverse effect on achieving climate goals.

As climate protection is a topic relevant to all federal entities, it is impossible to allocate corresponding expenditures to one entity's remit – such as defence spending. Although the ECF has been created to serve as a special funding vehicle, expenditures are being allocated to almost all departmental budgets. We assume that it will be impossible to allocate all inflows and outflows that are linked to climate action to an individual departmental budget or special fund. The new government intends to reshape the ECF to become the CTF. In doing so, it should ensure that the shortcomings we found surrounding the ECF do not reoccur. For example, the reallocation of numerous expenditure items to/from the ECF seemed to be arbitrary moves as no clear guidance as to the allocation of expenditures to the federal budget and the ECF respectively were in place. Additionally, the ECF failed to create incentives for federal ministries to budget adequately. As a result, almost 40 per cent of the funds appropriated for climate action had not been spent, with the reserve hitting €31.5 billion by late 2020. This indicates that the implementation of a large number of climate programmes that were to be funded via the ECF is a severe issue.

7.4 Comments of the finance ministry

The finance ministry shares our view that the climate impact of ECF and budget outflows should be presented transparently. The ministry added that detailed information is needed to be able to assess the total amount of climate change expenditures and thus the achievement of climate goals. The government in June 2021 entrusted the finance ministry with engaging with the environment ministry and the Federal Ministry for Economic Cooperation and Development to carry out a spending review on the linkage between sustainability objectives and federal budget. The bodies responsible should, however, make sure that the federal budget did not become too complex. The costs and benefits of adding labelling requirements needed to be considered carefully, and costs must be reasonably proportionate to the benefits. Currently, budget compilation guidelines were primarily tailored to the requirements of financial statistics. The ministry added that these were an indispensable basis for a coordinated financial planning and management system of public territorial entities, including accounting and auditing, and would largely comply with the principle of ministerial autonomy. Apart from that, it was difficult to make valid conclusions on the basis of climate change expenditures reported by the ministries (e.g. the increase in the Deutsche Bahn AG's equity).

The ministry added that the government every two years published a subsidy report which also included the subsidies' adverse impacts on the climate.

The finance ministry emphasised that special funds such as the ECF offered the possibility to pool earmarked inflows and outflows covered by such inflows and to take them out of the budget to better perform federal tasks. The ECF significantly contributed to making climate change policy more transparent. Appropriating funds within the ECF made it possible to coordinate the funding projects financed through the ECF across all ministries. The consolidation of projects within the ECF and the annual ECF reporting would lay open shortcomings and present optimisation potentials in implementing programmes and achieving set goals. The reserve created so far was not necessarily an indicator for implementation weaknesses, but also served the aim to create planning security for central measures.

The ECF included the key measures under the Climate Action Programme 2030, which made it the major funding instruments of the government. Certain climate change expenditures were shown in the federal budget to indicate, for example, their significance for development policies – as in the case of expenditures incurred for international climate projects. Ultimately, decisions on the appropriation of funds fell within the remit of the parliament.

7.5 Final assessment by the Bundesrechnungshof

The comments made by the finance ministry support our findings. The new government should present the fiscal repercussions precipitated by climate policy actions in a transparent manner. This kind of transparency is all the more important since the enormous funding needs for climate change adaptation and mitigation directly competes with probably high expenditures in other sectors, e.g. social affairs, defence, education, research or development cooperation. In the years to come, such expenditures will also be charged to the federal budget. The federal budget’s situation, however, deteriorated during the pandemic.

Both the legislator and the public have an urgent interest in gaining an overview of all budget inflows and outflows linked to climate change mitigation. A presentation to this end should also show declines in revenues attributable to climate policy-induced tax privileges as well as expenditures incurred for financial assistance that adds to the climate crisis.

The government should use a climate tracking mechanism to identify and assess the relevance of inflows and outflows to the climate issue. The aim should be to unveil the impact of all budget items on the climate. The additional information could be presented directly in the federal budget or in a special report.

The assessment of climate change expenditures may be difficult and/or burdensome. But for ministries it lays the groundwork for taking a closer look into the impact of such expenditure items. The examples included in this report for climate tracking mechanisms also encompass potential processes to assess climate change expenditures.

In designing the CTF, the government has to ensure that it does not repeat the mistakes made in the past regarding the ECF. The government needs to make clear – especially, to strengthen the power over the budget in parliamentary deliberations – which criteria are used to allocate climate change expenditures to the CTF budget and the departmental budgets respectively. The new government’s future efforts will have to focus more strongly on spending CTF funds on effective and efficient climate actions.

8 Conclusions and outlook

Climate change governance in Germany must urgently be enhanced. All programmes launched to achieve climate goals have to show that they contribute to reducing GHG emissions in a transparent and efficient manner. This particularly applies to funding programmes which often entail considerable burdens on the federal budget. The government has to monitor the achievement of goals at project level in order to be able to take adjustment measures if required. Furthermore, control efforts require a genuine climate governance which creates transparency and makes cross-governmental coordination possible. This is the only way to make sure that climate action is effective and efficient.

In a bid to achieve the government's ambitious climate goals, the economic ministry plans to launch a large number of programmes. Its “opening balance sheet”, however, does not show whether and how climate change governance can be enhanced. The new government should use the potentials for enhancement presented in this report. If so, the government would have a better chance to achieve its ambitious climate goals.

Our Governing Board adopted this report on 3 February 2022.

Bonn, 24 March 2022

Kay Scheller

President