Zukunft KlimaSozial

Institut für Klimasozialpolitik

Securing a socially just and climate-neutral future

11 insights for a Social Climate Policy

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Our mission statement

Our vision is of a climate-neutral and socially just future. This means well-being and participation for everyone.

We contribute to achieving this vision by sharing our expertise, ideas and concepts. From the outset, we consider climate and social policy together and develop new approaches.

Our work is evidence-based, we identify various options, and bring these into the social dialogue.

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Preface

The transition of our lives and economy towards climate neutrality is entering a new phase. Until now, German climate policy has primarily focused on the energy sector and industry. With considerable success: Emissions have been reduced and, in 2023, renewable energies supplied more than half of the electricity for the first time. While the consequences of this energy transition have had a significant impact on employees in the energy sector, citizens have felt little of it. Electricity still comes from the socket.

But that is changing. All sectors must contribute to achieving net-zero greenhouse gas emissions by 2045. The necessary renovations of buildings and changes in transport will directly affect private households, as will changes in the food, health and social sectors. This is no longer just an issue for a few thousand companies subject to the European Emissions Trading Scheme; it affects around 84 million people and 40 million households in Germany.

This brings distributional issues and the need for a socially just transition into sharper focus. The 2023 debate on the Building Energy Act has shown climate policy measures will only be broadly accepted if the social dimension and the financial burden on citizens are taken into consideration.

In political discourse, effective climate policy and social justice are often presented as mutually incompatible. However, this way of thinking is misguided because climate action and justice actually go hand in hand. Together, they are an important key to achieving a climate-neutral and socially just transition.

Progress in one area must not result in setbacks in another. Climate policy cannot be expected to deliver social progress, and it must not be overburdened with this expectation. The goal of climate policy is to avoid emissions. However, climate policy can no longer be considered in isolation from social policy. Social policy should aim to reduce poverty and inequality, protect against life risks, and promote social cohesion. However, social policy should not have a negative impact on climate action.

This is the starting point and motivation behind *Zukunft KlimaSozial's* development of a Social Climate Policy. For us, a Social Climate Policy means analysing the social impact of climate policy and the climate impact of social policy.[1] In addition, we also consider climate and social issues together in relevant areas of life. These include housing, energy and mobility, as well as health, work and participation.

[1] For an overview of the current state of research, see Bohnenberger (2022).

Four aspects are particularly important to us:

1) When policymakers regulate climate action through instruments, these instruments have distributional effects, as they do in other policy areas, which should be addressed and balanced in terms of social policy. The burdens of the transition should be distributed fairly, for example according to causation or performance.
2) The transition to climate neutrality also offers significant opportunities and benefits from which all sections of society should benefit. For example, a successful Social Climate Policy could help to reduce energy or mobility poverty and improve population health.
3) Everyone must be able to lead a climate-neutral life. Low- and middle-income households must not be forced to remain in a carbon-intensive lifestyle (carbon lock-in). Otherwise, they will face an excessive financial burden from sharply rising energy costs in the long term. At the same time, carbon emissions from high-income households must be reduced.
4) The acceptance of climate policy largely depends on the social design of individual measures and this should be further secured. In a democracy, transformative projects are dependent on majorities. Currently, climate policy still enjoys strong support among the population. However, surveys repeatedly highlight concerns about excessive costs. To ensure that the positive attitudes towards climate action remain firmly anchored as a foundation, social aspects must be given significantly greater consideration.

These insights describe the cornerstones of a socially just and future-looking Social Climate Policy for Germany. Of course, the issue of justice in climate change transcends national borders and has a global dimension. However, in order to identify concrete options for action, we are focussing on the specific situation in Germany. Our focus is on the perspective of private households and how they can be enabled to participate positively in the transition.

This insight paper starts with a description of the problem (Insights 1-4) and then highlights the synergies and potential offered by an integrated climate and social policy (Insights 5-7). Concrete solutions and elements of a Social Climate Policy are described in Insights 8-11 (see Figure 1).

These insights are intended to stimulate discussion and provide a basis for developing a Social Climate Policy. We want to lead this discussion together with others and cordially invite everyone to join us.

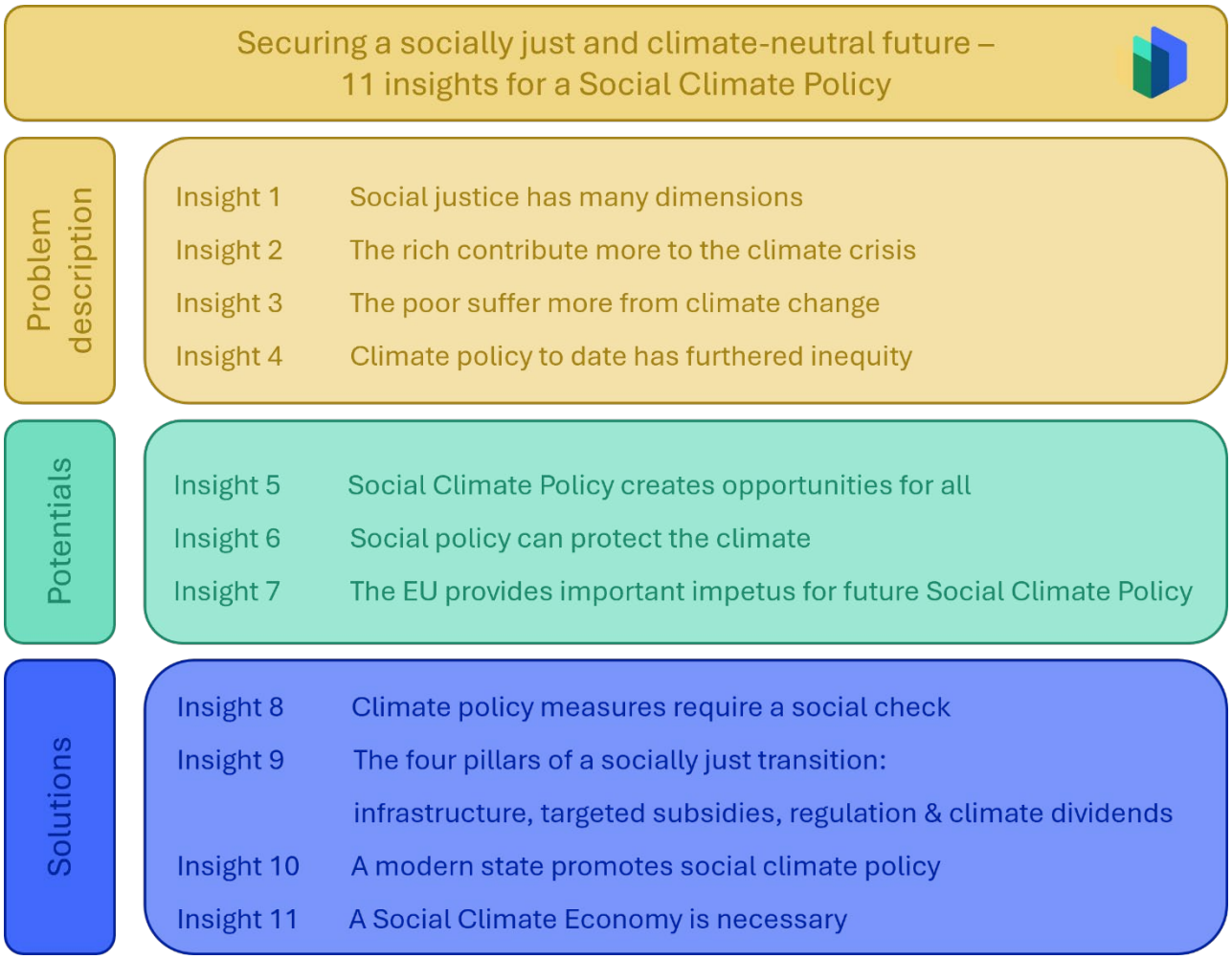

Figure 1 : 11 insights for a Social Climate Policy

Insight 1: Social justice has many dimensions

Social justice depends on value judgments. A socially just climate policy must therefore be based on political and societal debate. Beyond aspects such as income and wealth distribution, other factors also matter: work, health, access to public services and political participation. All these determine how climate change affects different households, who contributes to climate change and how the transition will affect different people. Further dimensions include socio-cultural differences (gender, migration status), spatial differences (urban versus rural as well as East versus West Germany), and different generations.

The goal of achieving a socially just and climate-neutral future is directly linked to the question of what social justice means and how it is defined. While climate neutrality can be defined technically and therefore more objectively, social justice is a normative question.

Behind the concept of social justice are different ideas of justice that depend on personal values. They range from absolute equality and equal opportunities to concepts of maintaining status. What is

considered "just" in society should be part of a political and social negotiation process in which the various dimensions of justice must be taken into account.[2]

Up to now, the question of a socially just transition has primarily focused on the distribution across different income groups (deciles). The decisive factor here is not individual income, but **net household income**. This is calculated from the net wages, pensions, child benefit and other transfer payments of all household members. The majority of households in Germany have a net income of less than EUR 3,000 per month (see Figure 2).[3]

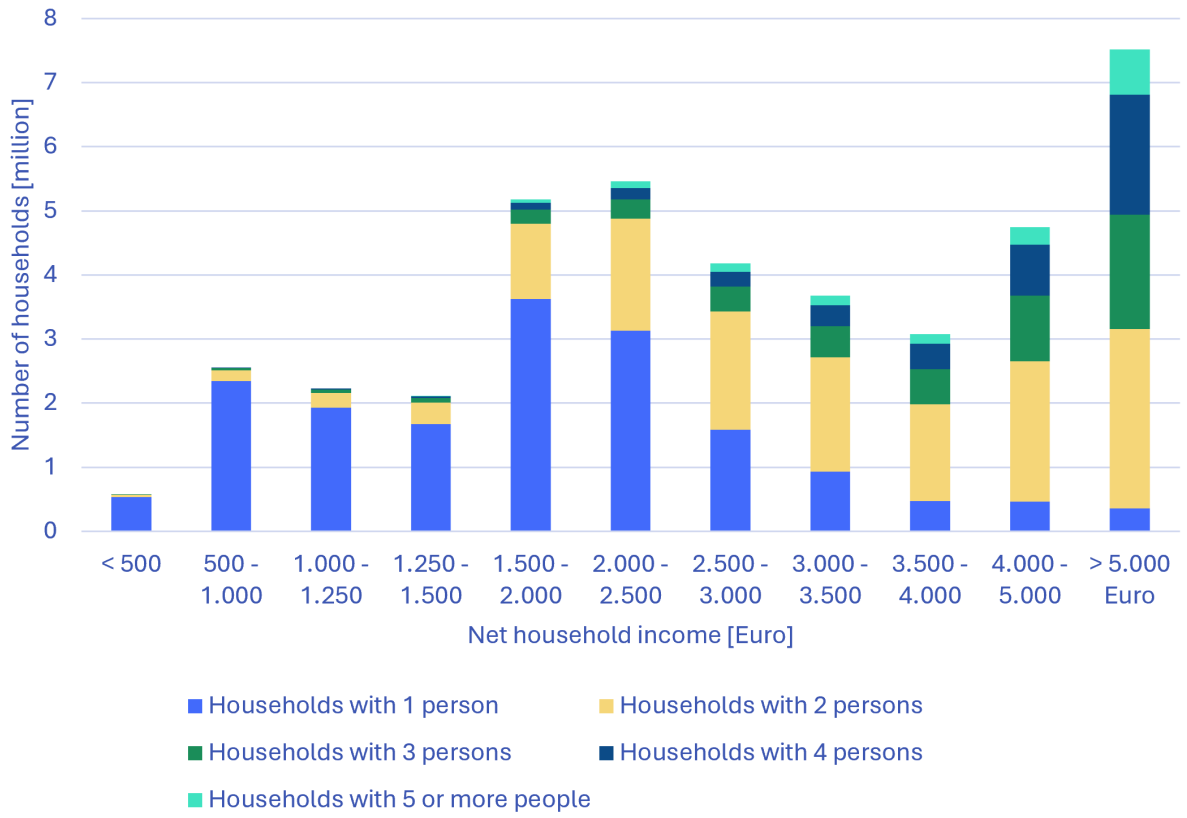

Figure 2 : Households by size and net household income. Own illustration based on Federal Statistical Office (2024b).

For most households, energy-efficient renovations, installing heat pumps and purchasing electric cars represent major investments that are financed through savings and loans. **Assets** are therefore key to assessing the ability to participate in the transition. Since the suspension of the wealth tax, complete data on this is no longer available. The most comprehensive data comes from the "Private Households

[2] Heyen (2021) highlighted a variety of dimensions in a major study for the Federal Environment Agency. Some of these are discussed here.

[3] To make households of different sizes comparable in terms of their standard of living, scientific studies use the "equivalence-weighted net household income". However, this results in artificial incomes. This presentation was chosen to provide a realistic overview.

and their Finances (PHF)" survey conducted by the Deutsche Bundesbank (Deutsche Bundesbank 2023).

Wealth in Germany is very unevenly distributed.[4] In 2021, the median wealth of German households was just over EUR 100,000. However, there is considerable variation. Most of this wealth is tied up in residential property. Around 45 per cent of the nearly 40 million households in Germany own their own home. Those who have paid off the mortgage on their property still have median financial assets of EUR 70,800, while tenants have EUR 11,800. Owners with mortgages fall in between, with median financial assets of EUR 45,300 (ibid.).

Only the top 20 per cent of households have financial assets totalling more than EUR 100,000 (see Figure 3). The asset data for the top five per cent can only be estimated. In this group, companies and rented houses account for a large proportion of the assets.

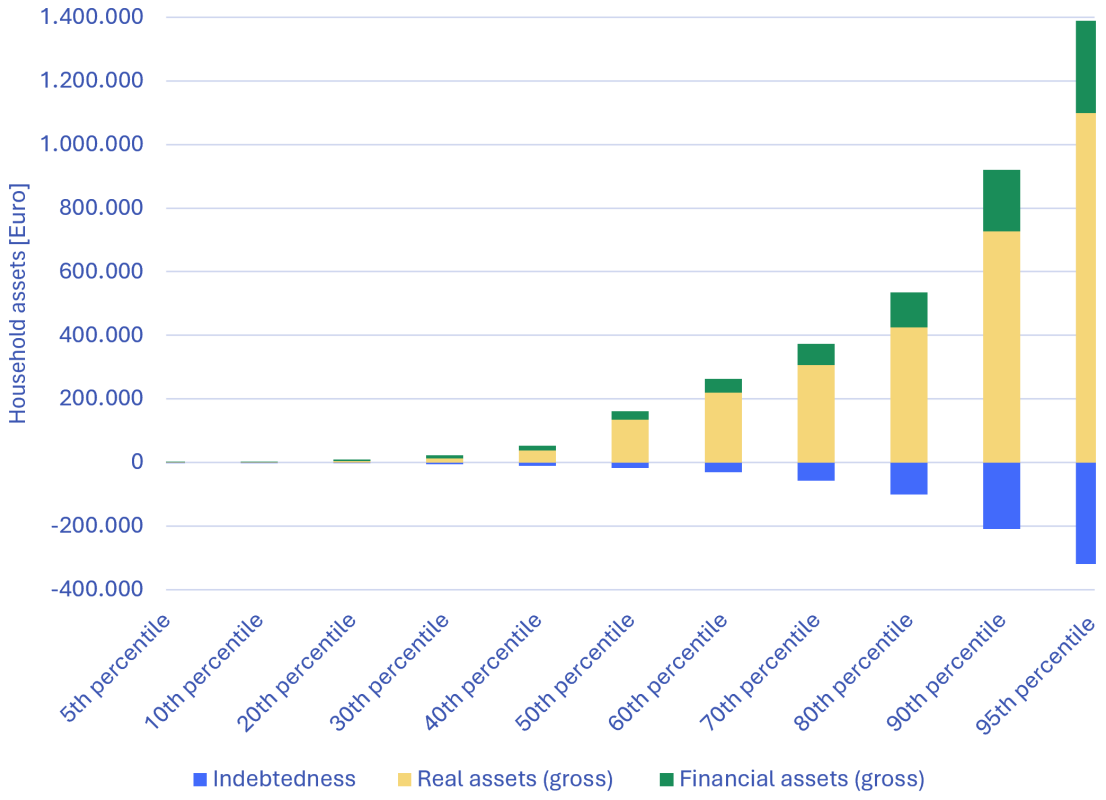

Figure 3 : Wealth by percentile. Own illustration based on the Bundesbank's PHF study, data for 2021.

Poverty is also an important dimension that needs to be considered. As absolute poverty is rare in Germany, figures for relative poverty are often used instead. Households are considered to be at risk of poverty if their income is less than 60 per cent of the average net disposable household income of all households in Germany, the so-called median. In 2023, this was EUR 1,314 per month for people living alone and EUR 2,759 per month for two adults with two children under the age of 14 (own calculation

[4] The Gini coefficient for net wealth in Germany was 73 per cent in 2021 (Deutsche Bundesbank 2023). A value of 100 per cent would mean that one household owns everything, and a value of zero per cent would mean that everyone owns the same amount.

based on Federal Statistical Office (2024a)). This means that 14.4 per cent of the population were at risk of poverty. Not being gainfully employed or only being in marginal employment are the main reasons why people are at risk of poverty.

Social justice cannot be defined solely in terms of income and wealth distribution. Depending on the perspective, justice can manifest itself in many different ways, such as in terms of health and participation. The same applies to climate policy, where focusing solely on monetary distribution issues is insufficient.

For this reason, various dimensions should also be considered when analysing the burdens and opportunities of a climate-friendly social transition. Among other things, it has a major impact on **employment** and working conditions. Prominent examples include the phasing out of coal in the Ruhr region and in eastern Germany, as well as the expansion of wind energy in northern Germany. As a result, individual occupational groups and regions are disproportionately affected by the transition. Gainful employment is not only important for income, but also for recognition and self-esteem.

Another important dimension of equity is **health**. Generally speaking, a lower socioeconomic status[5] correlates with poorer health. For example, people with a low level of education are up to three times more likely to suffer a heart attack or stroke (Heidemann et al. 2021). Life expectancy differs by 4.4 years for women and by 8.6 years for men between the highest and lowest income groups (Lampert et al. 2019).

During the transition, there is a particular need to protect people with physical disabilities, especially in the transport sector. In Germany, nearly eight million people are officially recognised as severely disabled.[6] Additionally, five million people require care and ten million children are under the age of twelve.

People who care for children, the elderly and those with disabilities have different mobility needs. This **care work** is still predominantly carried out by women. Closely linked to this is the regional disparity **in accessing public services** (schools, doctors' surgeries, day-care centres, etc.). A lack of local facilities means that those affected and their caring relatives have to make long journeys.

The fair distribution of **public spaces** is also a dimension of justice. This includes access to parks and bodies of water. This is not only important for coping with extreme heat; it has also been shown to enhance mental and physical health (Claßen and Bunz 2018). Public spaces should facilitate mobility and provide places for socialising, leisure activities and children’s play areas. The more densely populated a city is, the greater the conflicts between the various interest groups.

The lower a person’s income and level of formal education, the higher the probability that they will not vote (Schäfer 2023). Other forms of **political participation**, such as citizens' councils, petitions and civic participation, require at least some knowledge of German and the ability to read. Seven to eight million adults in Germany lack these skills (Klemm et al. 2023). Children and non-EU foreigners are excluded from political participation, regardless of their German and reading skills. Nevertheless, the interests of these groups must be taken into account during the transition.

[5] Socioeconomic status is measured by income, educational attainment and occupational status.

[6] Mental disabilities can also lead to considerable restrictions in participation, but these have not yet been sufficiently differentiated in the underlying medical care ordinance.

The distributional effects of climate policy depend on three other overarching factors: firstly, socio-cultural factors such as gender, migration status, as well as differences between tenants and homeowners; secondly, spatial factors such as differences between urban and rural areas or between the east and west and, thirdly, temporal factors such as differences between generations.

These dimensions are relevant not only for distributing the benefits and costs of a climate policy-induced transition (Insight 4), but also for distributing responsibility for causing the climate crisis (Insight 2) and the impacts caused by the climate crisis (Insight 3).

Insight 2: The rich contribute more to the climate crisis

Rich people produce more emissions that harm the climate. This is particularly evident in regard to mobility, buildings and consumption. Although the upper income groups have more resources to adopt climate-friendly behaviours, groups in the lower deciles of the income distribution have already reduced their emissions more strongly in relative terms. Moral appeals are not enough; a regulatory framework is needed to achieve climate neutrality.

The **causes** of the climate crisis are unevenly distributed, not only globally but also within Germany. Although economic criteria are usually the decisive factor, differences between genders or age groups can also be identified in individual consumption sectors (Kleinhückelkotten et al. 2016). Several studies do not include the emissions of the richest one per cent due to a lack of reliable data. Taking into account emissions from financial investments would reveal an even greater imbalance (Chancel et al. 2023).

The lowest four per cent of households in Germany have an **average per-capita emission rate** of 5.4 tonnes of CO_2 equivalents[7] per year (Hardadi et al. 2021).[8] Assuming a uniform emission allowance per person in Germany, this falls within the climate action target for 2030. However, if we consider the direct emissions of the richest households, these are three times higher than those of the poorest (ibid.).[9]

Emissions associated with food consumption are almost identical across all income groups. However, significant differences can be seen in the areas of housing, mobility and consumer goods (see Figure 4). In terms of housing, for example, the income group with a net household income between EUR 10,000 and EUR 18,000 has, on average, twice the emissions of the group with an income less than EUR 900, primarily due to living in significantly larger spaces. The emissions of the highest income group are five times higher for everyday consumption, six times higher for transport, and 13 times higher for air travel.

[7] CO2 equivalent is a unit of measurement used to express the climate impact of different greenhouse gases. The climate impact of other greenhouse gases, such as methane and nitrous oxide, is expressed in terms of carbon dioxide.

[8] Different studies using different calculation methods arrive at slightly different results. For example, the Federal Environment Agency, arrives at a lower range of per-capita emissions in the mobility sector (Kleinhückelkotten et al. (2016)).

[9] This does not include emissions caused by public infrastructure (e.g. road construction, water supply).

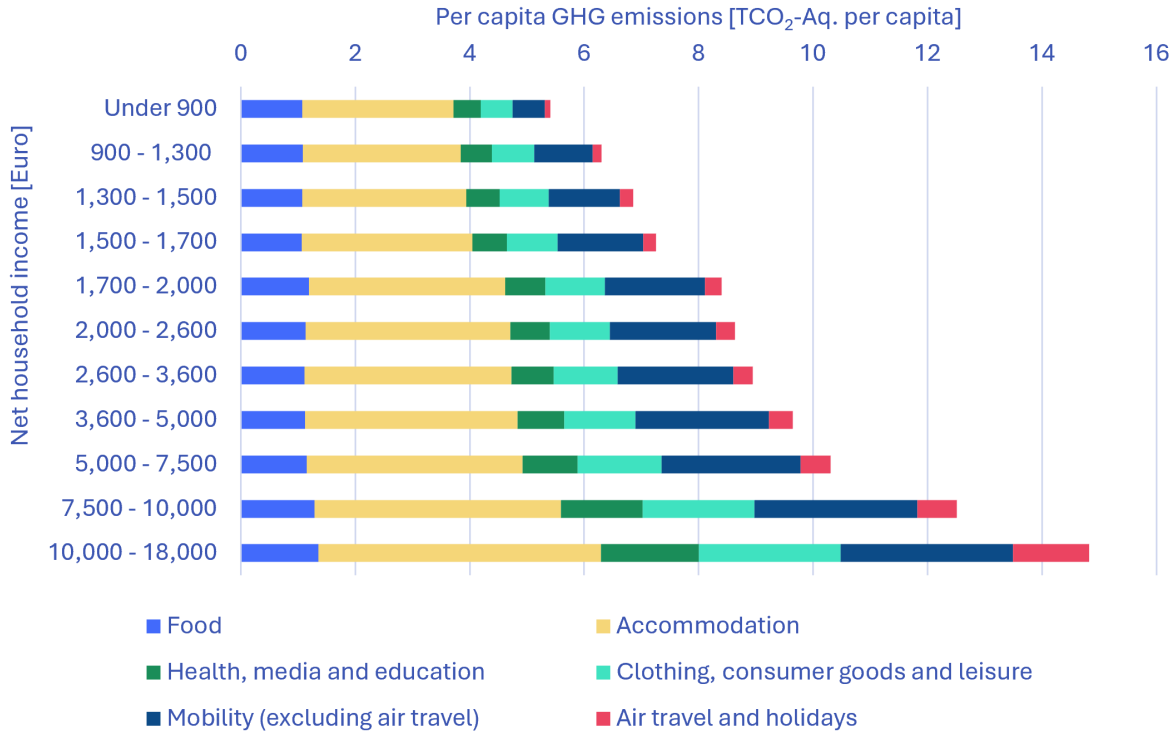

Figure 4 : Greenhouse gas emissions (GHG emissions) per capita by net household income for different consumption categories. Own illustration according to Hardadi et al (2020).[10]

The **trendsetting function** has a more indirect effect. Higher-income population groups often act as role models with their lifestyles. Their consumption patterns are then imitated by the middle classes. Consequently, emission-intensive lifestyles become more prevalent than climate-friendly ones (Rehm et al. 2023). In addition, **climate action successes** are unevenly distributed. For instance, between 1990 and 2019, the poorest half of the population managed to reduce their per-capita emissions by 37 per cent, whereas the richest one per cent only managed a reduction of 12 per cent (Oxfam 2023).

On a per-capita basis, the climate crisis is therefore predominantly caused by the population groups who have the financial and other means to facilitate the transition in the private sector. However, this should not create the impression that appeals to individual behaviour alone are sufficient for facilitating the climate transition. This requires a strong **regulatory framework and structural reforms** that enable sufficient consumption for those on low incomes[11] while reducing the consumption of raw materials and emissions of heavy consumers. The German Council for Sustainable Development (2024) and the German Advisory Council on the Environment (2024) have made proposals in this regard. Important frameworks for a successful transition are set out in Insights 8-11.

[10] The data are based on the EVS 2013 and summarise the following consumption categories: Food (animal-based food, vegetable-based food); Housing (housing and renovation, electricity and utilities); Health, media and education (health and personal care, media and learning); Clothing, consumer goods and leisure (clothing and footwear, furniture and appliances, recreation and services); Mobility (transportation and vehicles, air travel, holidays).

[11] In 2023, 11.4 per cent of the population in Germany lived in overcrowded housing (Eurostat (2024b)).

Insight 3: The poor suffer more from climate change

The climate crisis has material and health consequences that are distributed unevenly. These effects depend on structural and individual factors, such as a person's financial resources and health. Poorer and more vulnerable groups are more adversely affected by heatwaves, air pollution and severe weather. Such events can severely compromise health systems and public order. Ultimately, all of society will have to shoulder the rising costs of climate adaptation.

As with the causes, the consequences of the climate crisis are also unevenly distributed. In Germany, for example, climate change will lead to hotter summers and more extreme weather events, such as droughts and floods. These will have **both health and material consequences** for the population.

In 2023, the Robert Koch Institute (RKI) published a comprehensive report on the health consequences of the climate crisis, as did the Lancet Report for Europe (van Daalen et al. 2024; Robert Koch Institute 2023). According to these reports, heatwaves will have a significant impact during the summer months. However, the impact will be felt very differently across the population. The extent to which people are affected by these effects, or can protect themselves from them, depends on three factors:

1) Structural conditions (political, social, geographical and economic context),
2) individual adaptability (socioeconomic resources, level of education), and
3) individual sensitivity.

In addition to an individual's social situation, their **state of health** also has a strong influence on them. Multiple discrimination can exacerbate the problem. People with cardiovascular diseases are particularly at risk, as these correlate negatively with income. The richer people are, the less likely they are to suffer from strokes, diabetes or high blood pressure. Older people, children and pregnant women are also susceptible to heat. Between 2018 and 2023, almost 27,000 people died from the effects of heat in Germany alone (an der Heiden et al. 2023).

Heatwaves disproportionately affect **lower-income individuals**, who often live in unrenovated, uninsulated apartments in densely populated neighbourhoods, near busy roads or on the edge of industrial areas. These areas often lack parks or fresh air corridors that have a cooling effect, and the temperature difference between suburban areas and densely populated neighbourhoods can be as much as ten degrees Celsius (Deutsches Klimaportal 2018). People who live in their own homes on the outskirts of the city have more opportunities to adapt. They can insulate their homes or install shading.

On average, people on low incomes are more likely to work outdoors in sectors such as construction, agriculture, waste disposal and distribution services. During the summer months, they are more exposed to periods of heat than office workers. According to the RKI, population groups with a low socioeconomic position often have a higher risk of heat-related morbidity and mortality (Bolte et al. 2023).

In addition, extreme weather events can have a significant impact on **healthcare provision**. For instance, flooded roads can prevent ambulances from passing, and social and healthcare facilities require significantly more staff if they have to be evacuated quickly. In turn, extreme weather affects socially disadvantaged population groups much more severely, as they are unable to mobilise their own resources to escape emergency situations. Firefighters and technical relief organisations are particularly vulnerable to the direct effects of extreme weather events.

Rising temperatures also lead to an increase in **allergies**, as trees blossom earlier and for longer. They promote the spread of infectious diseases such as dengue fever, which is transmitted by mosquitoes

and ticks, and Vibrio infections in the Baltic Sea. These risks are distributed relatively evenly among the population.

In Germany, the climate crisis has most likely already contributed to several severe weather disasters. With the exception of heatwaves, however, these have been very localised. Nevertheless, the 2021 flood disaster in the Ahr Valley, for example, briefly raised public awareness of the fact that Germany is also feeling the effects of climate change. The floods in the Ahr Valley alone caused 40.5 billion euros of economic damage (Federal Government 2023a). The direct **financial impact** of such disasters is very unevenly distributed, affecting only those in the afflicted areas. Anyone who owns a property or larger valuable assets such as a car, and has not taken out natural hazard insurance, will suffer losses.

The number of insurance-relevant extreme weather events will increase significantly in the foreseeable future, as will the expenses incurred by the **insurance industry** and reinsurers. Politicians are currently discussing the introduction of compulsory natural hazard insurance. The presumably rising costs of natural hazard insurance will be passed on to tenants via the ancillary costs.

At the same time, the need for cooling and flood **protection measures** in the construction industry will also increase (FÖS & Öko-Institut 2021). These are also costs that can be passed on to tenants. Air conditioning systems increase energy consumption, which in turn will lead to additional costs.

The rising costs of adaptation measures, such as the construction of dykes, will put pressure on public finances. Increasing **damage to the transport infrastructure** is likely to be financed by the public sector (municipalities, federal states and the Federal Government), or by railway and transport companies through raising ticket prices (ibid.). Furthermore, the increase in extreme weather events, particularly the combination of extreme heat and drought, is likely to make food more expensive (ibid.). This will particularly affect households that **spend** a high proportion of their income on food.

Insight 4: Climate policy to date has furthered inequity

To date, Germany's climate policy has focused on energy and carbon pricing, as well as on subsidies. This has led to a significant reduction in emissions. However, the various pricing and levy financing measures act like consumption taxes and, due to their regressive distribution effect, disadvantage households with low and middle incomes. Yet hardly any compensation mechanisms have been introduced. Subsidies have mainly benefited high-income households. Overall, therefore, climate policy to date has been socially imbalanced.

Climate policy to date has led to emission reductions

Recent climate policies, which have primarily focused on electricity generation and specific industrial sectors, have achieved remarkable **climate policy successes**. For instance, greenhouse gas emissions decreased by 46.1 per cent between 1990 and 2023, and the majority of Germany's electricity is now generated from renewable energies (Agora Energiewende 2024). These successes are based on climate policy instruments such as the EU Emissions Trading Scheme (ETS1) and the feed-in tariff for renewable energies, financed via the EEG levy set out in the Renewable Energy Sources Act (EEG).

In addition, technical innovations have led to considerable **increases in efficiency**, which, at least in theory, will soon make it possible to replace fossil fuels in the heating sector, and to a certain extent in the transport sector too. Subsidy policies such as feed-in tariffs and federal subsidies for efficient buildings (BEG), incentive taxes such as carbon pricing and eco-taxes, and regulations such as fleet

limits and the Eco-Design Directive have further promoted climate action, as has the expansion of climate-friendly infrastructure in recent years.

Emissions have been primarily reduced where it was technically easiest and where there was least political resistance. Additional markets have been successfully developed (e.g. renewable energies, efficiency technologies and electric cars) and relative savings achieved through incentives and subsidies. For instance, the government has subsidised low-emission vehicles and heating systems, without, however, simultaneously introducing measures to reduce the number of fossil-fuelled vehicles and heating systems (ERK 2022).

Opposing developments have prevented a greater reduction. Technical efficiency gains do not automatically lead to an absolute reduction in environmental consumption or greenhouse gas emissions. In almost all areas, the so-called rebound effect has led to increased consumption offsetting the technically induced savings (ibid.). For instance, despite all the efficiency successes, emissions in the transport sector have remained constant over the last few decades due to increased mileage (Federal Environment Agency 2024) and the increased engine power and weight of vehicles (ERK 2022). Similarly, renovation successes in the building sector have also been counteracted by the increased demand for living space (Federal Environment Agency 2024).

Politicians have so far been cautious about introducing **regulations** that directly affect individual behaviour, such as speed limits on motorways. A key prerequisite for ensuring that everyone can adopt climate-friendly behaviour is climate-friendly **infrastructure**. This has been neglected for many years. It is only now that increased investment is being made in rail and heating networks.

Social aspects were neglected

As the transition to climate neutrality by 2045 affects all areas of society and the economy, the impact on individual households and thus the social **distributional effect** is becoming clearer. The following section presents examples of the distributional effects of individual climate policy measures. It demonstrates that climate policies to date have been socially imbalanced.[12]

Without redistribution, price instruments and levies have a regressive distribution effect

The **eco-tax** on petrol, diesel, heating oil, coal, gas and electricity was introduced in 1999 as part of the socio-ecological tax reform. The revenue generated flows into the pension insurance scheme, reduces the contribution rate and is thus intended to make work more attractive, particularly for those on low to medium incomes. This is why the eco-tax is referred to as a "double dividend", as it provides incentives for reducing carbon emissions while simultaneously reducing negative incentives to participate in the labour market. To date, around 20 billion euros have flowed into the pension insurance scheme each year. Overall, the eco-tax, combined with the pension insurance subsidy, has had a neutral impact on private households and very moderate distributional effects (Bach et al. 2019).[13] However, the increase

[12] A comprehensive picture would require a systematic analysis of the distributional effects of climate policy instruments in different areas. One initial approach is the UBA analysis for the Projection Report 2023, which analyses the distributional effects in the transport and building sectors (Öko-Institut; Fraunhofer ISI; IREES 2024).

[13] As the bottom two and the top deciles of the income distribution pay fewer pension contributions, they are slightly overburdened by the tax (less than one per cent of equivalent household income). Single parents and large families are also burdened, while pensioners benefit from higher pensions.

in the federal subsidy for pension insurance was reduced by a further EUR 600 million per year in autumn 2023 as a result of the ruling by the Federal Constitutional Court on the second supplementary budget.[14]

Since then, levies and other costs, such as the EEG levy, grid fees and carbon pricing, have been introduced. These place a greater burden on lower-income earners relative to their income than on higher-income groups. An example of this is the **EEG levy**, which was used to finance the expansion of renewable energies between 2000 and 2022. It was added to every kilowatt hour (kWh) of electricity consumed, whereby energy-intensive companies that compete internationally were exempt. Although low-income households consume less electricity than high-income households, they have to spend a higher proportion of their income on basic necessities such as electricity. Price increases per kWh therefore have a regressive distributional effect. For instance, poorer households spent over three times more of their income on the EEG levy alone as high-income households (Schumacher and Cludius 2020).

The income from the EEG levy was used to finance the feed-in tariff for renewable energies. This primarily benefited higher-income earners who own the roof space for photovoltaic systems or have the "cultural capital" to join a community energy cooperative. The regressive EEG levy was abolished in mid-2022 and the feed-in tariff has since been financed from the Climate and Transition Fund (KTF) and thus from revenue generated by carbon pricing. **Grid fees**, which are used to finance the operation and expansion of the electricity grids, also have a regressive effect as a consumption tax.

Without redistribution of revenue, carbon pricing as part of national **fuel emissions trading** (BEHG) also has a negative distributional effect and places a disproportionate burden on middle incomes in particular (Kalkuhl et al. 2021). In the context of carbon pricing, the concept of a **climate dividend** is being discussed as a means of providing direct relief, but this has not yet been implemented (see Insight 9). Unlike the first eco-tax, this money would flow tangibly back to households in the form of direct payments, thereby increasing acceptance of climate action and carbon pricing as an instrument for it.

High earners are the main beneficiaries of the current subsidy policy

Existing subsidy schemes and tax depreciation options aimed at private households are unfair in terms of the monetary distribution. This is demonstrated below using the subsidy policy in the building sector and the purchase premiums for electric cars (environmental bonus).

The (energy-efficient) **refurbishment of existing buildings** is subsidised in three ways:

1) Through grants and loans via the Federal Funding for Efficient Buildings (BEG) scheme,
2) through tax deductibility in accordance with Section 35c of the German Income Tax Act (EstG), and
3) to a lesser extent through the cost of accommodation in the welfare systems or through housing benefit.

The most extensive federal financial support in the building refurbishment sector is provided by the **BEG** scheme in the form of grants from the Federal Office for Economics and Export Control (BAFA) and

[14] German Bundestag (27 March 2024): Second Budget Financing Act 2024. https://www.recht.bund.de/bgbl/1/2024/107/VO.html.

interest-reduced loans and amortisation grants from the German Development Bank (KfW).[15] Both owner-occupiers and (institutional) landlords can benefit from these schemes. In 2022, around 13 billion euros were distributed to private building owners (Heinrich et al. 2024). The majority of those receiving subsidies are employed, have a monthly net household income of more than EUR 4,000 , and are therefore high earners. They also have a high level of education. The lower the net household income, the lower the utilisation of subsidies (Heinrich et al. 2023b). Politicians have recognised the problem and introduced separate subsidies specially targeted at low-income households in the BEG scheme for heating conversions from 2024 (see Insight 9).

As an alternative to direct subsidies via BAFA, **investments in climate action** also qualify **for tax relief**.[16] 20 per cent of the expenditure on the energy-efficient refurbishment of a home can be deducted from the tax liability, up to a total investment amount of EUR 200,000. This is a more attractive option for people with a high-income tax rate than taking out a loan that has to be repaid.

People on a low salary or with a small pension who own their own home can apply for housing benefit, which is granted to them in the form of an **encumbrance allowance**. The housing benefit office then pays the costs of any necessary renovations. It is still unclear whether the installation of a heat pump and the insulation of the property will be assessed as such. In 2021, six per cent of the almost 600,000 households receiving housing benefit (around 36,000 households) received the encumbrance allowance. This figure is falling steadily,[17] although the need still exists: 26 per cent of all households at risk of poverty live in owner-occupied housing (Eurostat 2024c).

The Federal Government also promotes the **energy-efficient refurbishment of rental properties** through the BEG scheme. Almost 30 per cent of applications were for properties that also contain rental flats. Although commercial players submitted only a small proportion of the funding applications (ten per cent), they received just over half of the funding. Landlords benefit from the increase in property values that refurbishment brings.

In addition, the costs for energy-efficient modernisation can be passed on to tenants via a modernisation levy for an unlimited period of time. Any subsidies received (along with any necessary repair measures) must be deducted from the modernisation expenses that can be levied. This means that tenants also benefit from the BEG scheme. However, there is no obligation to utilise the subsidies. As the modernisation levy is payable indefinitely, it may be financially advantageous for landlords to forgo targeted subsidies.

As there are no figures available on tenant income levels, the effects of monetary distribution can only be estimated. Rent levels for BEG-subsidised properties in 2021 provide an indication: sixteen per cent of the flats were rented at above-average prices, while eleven per cent were below the regional rent level

[15] The loan option for individual measures in residential and non-residential buildings was discontinued from 28 July 2022, as were the grants for new construction projects (BEG WG/NWG). A new programme offering additional loans from the KfW has been in place since 2024.

[16] This is regulated in the Federal Income Tax Act § 35c

[17] Figures for 2023 are not yet available. The "Housing Benefit Plus" reform is expected to triple the number of recipients from 2023 onwards. It was assumed that the six per cent share of housing benefit would remain the same. Federal Ministry of Housing, Urban Development and Building (22/09/2022): Draft law to increase housing benefit. https://www.bmwsb.bund.de/SharedDocs/gesetzgebungsverfahren/Webs/BMWSB/DE/Downloads/referentenentwuerfe/wohngeld-plus-gesetz-refe.pdf;jsessionid=86A3DC77BCC4F413DCF85C1F44E54E66.live872?__blob=publicationFile&v=2.

(Heinrich et al. 2023a). Only nine per cent of the flats rented out by subsidised companies were subject to social housing restrictions, and none of the subsidised private landlords offered social housing.

Another subsidy scheme, known as the **environmental bonus for electric vehicles**, was designed to boost sales of hybrid and electric cars. Between 2016 and 2023, the purchase of various vehicle types was subsidised by up to EUR 6,000 from the Federal Government and EUR 3,000 from the manufacturers. Around ten billion euros of funding was provided for around 2.1 million vehicles (Federal Government 2023d). Over half of the applicants (54.2 per cent) were companies, meaning that a significant proportion of the subsidies were given to either businesses or individuals provided with a company car.

In 2017, half of all e-cars were driven by the richest 20 per cent of households (Nobis and Kuhnimhof 2018). Although more recent data is unavailable, the continually high purchase prices suggest that this distribution is unlikely to have changed. New cars are generally bought much more frequently by high-income households. In the top income quintile, the number of new cars is five times higher than for households in the bottom income quintile. The former therefore benefit more frequently from purchase premiums for new cars (Agora Verkehrswende, 2023a). There is no differentiation based on income for the targeted subsidies.

The lack of a price cap on targeted subsidies for electric cars has resulted in many large and expensive cars being subsidised. Consequently, there is no used car market for small electric vehicles, meaning that people with limited financial means do not benefit from the targeted subsidies through second-round effects. This creates the risk of a carbon lock-in in the transport sector, which in turn means that low-income earners would have to rely on petrol or diesel cars even when energy prices rise, unless local public transport, cycle paths and footpaths are sufficiently expanded.

Climate-damaging subsidies

It is not only subsidy schemes that have socially problematic effects. Many reduced tax rates and **tax deductions**, some of which were justified as social compensation for climate policy measures, also have negative consequences in terms of climate and social policy, acting as a disincentive. These are often referred to in debates as "climate-damaging subsidies". Examples include the commuter tax allowance, company car tax, the diesel privilege, VAT exemption for international flight tickets and building subsidies. These subsidies counteract and overcompensate for the steering effect of carbon pricing (Plötz et al. 2024).

When reducing these climate-damaging subsidies, it is important not to ignore the social consequences. Nevertheless, it is evident that **higher-income households** particularly benefit from tax relief in the transport sector (ibid.).

In summary, the figures show that subsidies in the building sector are being claimed by high-earning building owners who are also in employment. On the other hand, (institutional) landlords are also taking advantage of the subsidy scheme, from which tenants also benefit. However, the subsidy scheme for electric cars has benefited people who can afford to buy a new car. Currently, there are no subsidy schemes for electric mobility that are specifically tailored to groups on lower incomes. Furthermore, subsidies and tax breaks that favour the consumption of fossil fuels exacerbate social inequality and create misguided climate policy incentives.

Insight 5: Social Climate Policy creates opportunities for all

A socially just transition towards climate neutrality can help contain the climate crisis and reduce the risk of extreme weather events. This can prevent human suffering and destruction. Ambitious climate policies can have a positive effect on health outcomes and save lives by improving air quality, encouraging active mobility and promoting healthy diets. A stronger focus on the social dimension of climate policy, especially in the transport and building sectors, can produce other positive outcomes by making infrastructure more inclusive for different groups and generally improving the quality of life for many people. Climate action can therefore also improve our health and increase public participation.

Successfully reducing greenhouse gases will slow down the climate crisis. Every tenth of a degree of warming avoided **saves lives**. The health risks described in Insight 3 can be mitigated by effective climate action. There will be fewer heat-related deaths, fewer asthma cases and fewer people drowning in heavy rain or being struck by weakened trees during storms. There will also being fewer people having to move away from flood-prone areas.

However, a socially just climate policy would also create opportunities for millions of people in other policy areas. In the transport sector, for example, expanding public transport nationwide and introducing favourable pricing would help to **overcome mobility poverty**.[18] This was demonstrated by the brief introduction of the 9-Euro ticket. Those who started using public transport as a result of this offer were mainly low-income earners who had previously been unable to afford it (Suckow and George 2023). This measure strengthened the participation of many people.

Reducing motorised private transport would enable **public space to be distributed more fairly** and could free up areas with a cooling effect for recreation and playgrounds. This would also improve public health and guarantee greater safety for pedestrians and cyclists. The amount of time that children and young people spend outdoors correlates strongly with the **quality of the activity spaces** in their local area. The less traffic, the more time children and young people spend outdoors and the more exercise they will get, which in turn enables them to grow up healthily (Höfflin 2019) .

Reduced noise emissions increase mental performance and reduce mental and physical stress in all age groups (Umweltbundesamt 2016). Reducing noise improves the quality of life. **Improving air quality** helps to slow down the rise in asthma and lung diseases (Klauber et al. 2024). Similarly positive health effects can be achieved by reducing particulate matter emissions through the phasing out of coal combustion, at least in the vicinity of power plants.

In the field of nutrition, **reducing meat consumption** would not only help to save millions of tonnes of carbon, but would also reduce diseases such as diabetes, heart attacks, high blood pressure and strokes (Hirschhausen 2021). According to Hamilton et al. (2021), a policy based on the 1.5-degree target could prevent around 150,000 deaths in Germany by 2040 by improving air quality, mobility and nutrition.

[18] Agora Verkehrswende (2023b) identifies four factors that influence mobility poverty: affordability (mobility services are too expensive), accessibility (places with daily necessities are too far away), availability (lack of suitable mobility services) and time poverty (high amount of time spent on necessary mobility means that there is a lack of time for recreation or social activities).

Consistent and socially just climate action would also create opportunities in the building sector. Implementing **minimum energy standards**, particularly in buildings occupied by people on low incomes, could reduce heating costs, the risk of energy poverty, mould formation due to inadequate heating, and the associated health risks. It could also help people avoid experiencing poverty, such as when living in a cold home, while simultaneously reforming the modernisation levy and introducing subsidy schemes differentiated by income. Refurbishment also ensures that homes stay cooler in summer. Living comfort increases for everyone.

If climate action is organised in a socially just way, it can therefore have several **preventative, health-promoting and participatory effects**. Good indicators are needed to make these opportunities and possible progress visible, and to track them over time (see Insight 8).

Insight 6: Social policy can protect the climate

To date, discussions have mainly focused on the social impacts of climate policy, while the climate effects of social policy have often been overlooked. Integrating climate and social policies means ensuring that social policy is climate-neutral without compromising social outcomes. For example, this could be achieved when designing infrastructure for social services, such as hospitals, social care services and day-care centres. Decentralising healthcare centres could therefore help to achieve both social and climate policy objectives.

While the social effects of climate policy are receiving increasing attention in the political debate, the effects of social policy on climate change have not yet reached a broad audience. The focus of climate-friendly social policy is on social infrastructure and benefits in kind, as defined by social law. These include health and care, assistance for the disabled, youth welfare as well as occupational and medical rehabilitation. The focus should be on outcomes for patients, those in need of care and patients undergoing rehabilitation. Service providers should be set ambitious targets in the climate-social transition and receive sufficient financial support. Investments cannot be funded through purely cost-covering remuneration without compromising the service quality.

Integrated Social Climate Policy is best illustrated by the example of the healthcare sector. According to the German Alliance on Climate Change and Health (2021), this sector is responsible for 5.2 per cent of German greenhouse gas emissions. Hospitals account for the largest share of these emissions, followed by the production and distribution of medicines. These emissions can be reduced by insulating buildings and changing mobility patterns. Additionally, upcoming structural changes (e.g. shifting from inpatient to outpatient care) could be utilised to create a different, **low-emission healthcare system.**

The German healthcare system is characterised by overuse, underuse and misuse (SVR Gesundheit 2001). While operations and medical technology are lucrative, medical therapies such as speech therapy, occupational therapy and physiotherapy are poorly remunerated.

The overuse of and overprovision by **hospitals** has been confirmed on multiple occasions, leading to reform plans at both the federal and state levels (Government Commission for Modern and Needs-based Hospital Care 2022; Loos et al. 2019). Through a hospital plan,[19] the intention is to determine

[19] The federal states are already drawing up such hospital plans in order to authorise hospitals to provide care. However, this instrument has not yet been actively used to reduce overcapacity.

which treatments will be carried out by which providers in future. The envisaged reduction in over- and mistreatment would lead not only to better treatment quality, but also to fewer climate-damaging emissions.

In **outpatient care**, under-provision must be eliminated to prevent more patient journeys and subsequent climate-damaging emissions. Doctors in private practice tend to be concentrated in affluent regions and neighbourhoods. There is already an undersupply of GPs and paediatricians in sparsely populated and structurally weak regions (Kassenärztliche Bundesvereinigung 2023). For many patients, this means long journeys, which chronically ill and disabled people in particular can only undertake by car. A more evenly distributed care structure comprising medical care centres (MVZ) and satellite practices in villages, alongside the expansion of telemedicine, would lead to fairer care in terms of social policy and fewer car journeys in terms of climate policy.

In an **ageing society** experiencing the effects of climate change, prevention would be the most favourable path for society as a whole. However, the healthcare system is not responsible for promoting healthy living conditions or preventing illness.[20] Conversely, a healthier population would not lead to fewer hospitals or doctors' surgeries, as these are planned rather than demand-orientated. For prevention to be successful, the federal states must fulfil their responsibility for the health of the population, which is enshrined in the Basic Law, to a greater extent. The heat protection plans introduced by municipalities are a first step in this direction.

The integrated consideration of climate and social policy requirements, as presented here, can also be applied to the care and support services for children, elderly people in need of care and people with disabilities. For instance, planning districts could also reduce the number of journeys made by carers in outpatient care while improving care for vulnerable groups.[21] The same applies to midwives and day-care centres. Such planning and responsibility could fundamentally increase accessibility for vulnerable groups and reduce the number of journeys.

However, the majority of social expenditure is channelled into private consumption in the form of **wage replacement benefits**, particularly pensions and **welfare benefits**, and is therefore not subject to direct taxation. Nevertheless, it is possible to implement climate-friendly social policies by granting special subsidies for climate-neutral services. One initial approach is the climate component in housing benefit. This should enable people to cover rent increases resulting from energy-efficient refurbishments. However, the implemented form of the climate component has no climate relevance. It merely increases housing benefits by 50 cents per square metre. The same applies to the heating allowance in housing benefits.

On the other hand, the encumbrance allowance (housing benefit for homeowners) could be used to specifically promote energy-efficient refurbishment, while pensioners and recipients of the citizens' allowance could receive a Germany Ticket. A broad social debate is needed beforehand to ensure that these benefits are perceived as enabling and not patronising.

[20] As the Federal Ministry of Health can only regulate statutory health insurance funds, these have been tasked with providing prevention measures. Beyond providing primary prevention measures such as vaccination services and services to encourage people to stop smoking, they cannot influence living environments (e.g. building cycle paths, installing noise barriers, combating child poverty...). Individual lifestyles play only a minor role in health inequalities.

[21] The planning districts were abandoned in 1995 in order to create more services through competition.

Insight 7: The EU provides important impetus for future Social Climate Policy

The EU's European Green Deal sets out an ambitious agenda for climate policy. A fundamental principle of the Green Deal is that no one is left behind. By introducing stricter rules for using carbon pricing revenues, as well as a Social Climate Fund and reporting requirements, the European Union is providing important impetus for a more socially equitable climate policy. This impetus must now be actively taken up in Germany.

The European Union (EU) has presented an ambitious climate action agenda with the **European Green Deal**. The Green Deal is the EU's strategy to achieve climate neutrality by 2050. It consists of a package of various initiatives affecting all relevant policy areas, including climate, agriculture and sustainable finance. A fundamental principle of the Green Deal[22] is to "leave no one behind". This principle is important both within and between Member States. The EU has taken various measures to fulfil this requirement.

Guidelines for using revenue from European emissions trading

Since May 2023, stricter **EU requirements** have applied to **the use of funds from European emissions trading.**[23] While previously only half of the revenue from the European Emissions Trading Scheme was subject to target regulation, the revenue may now only be used for defined purposes (Busch and Harder 2024). Several of these purposes have a social dimension; for example, the revenue can be used to provide financial support to low-income households. This applies to revenue from both the first European Emissions Trading Scheme for the energy sector and parts of industry (ETS1), and the second Emissions Trading Scheme for housing and transport (ETS2), which is set to begin in 2027.

When using **ETS2 revenues**, there is a stronger focus on the social dimension and transition measures. The EU also permits spending on decarbonising heating in buildings and transport fuels, but clear priority must be given to measures that help to address the social aspects. The amount of funding from ETS1 and ETS2 depends on the price level. With a carbon price of 100 euros per tonne for the period from 2027 to 2032, Germany would receive around 111 billion euros from ETS2 (FÖS & Öko-Institut 2024).

The introduction of carbon pricing for building heating and transport will be accompanied by a new social fund – the **Social Climate Fund**, which is set to be launched in 2026. This is designed to support disadvantaged population groups during the transition, even before the ETS2 comes into force. Far more specific guidelines for the use of the funds will apply here. These are based on the vulnerability resulting

[22] European Commission (11 December 2019), The European Green Deal: Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF.

[23] European Union (16 May 2023), Directive 2023/959/EU: Directive (EU) 2023/959 of the European Parliament and of the Council of 10 May 2023 amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 establishing and operating a market stability reserve for the scheme for greenhouse gas emission allowance trading within the Union. https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32023L0959.

from dependence on fossil fuels. The volume of the e Social Climate Fund is not proportional to the level of carbon pricing and is relatively low for richer EU countries. For example, Germany's maximum allocation is EUR 5.3 billion over seven years, which the Federal Government must supplement with its own 25 per cent contribution. However, the monitoring of the Social Climate Fund by the EU Commission is much more clearly regulated: to be eligible for money from the Social Climate Fund, EU states must submit detailed **social climate plans** by mid-2025. These should include the targets, milestones, planned measures and expected costs. This requires the definition of vulnerable groups as well as suitable indicators and data (see Insight 8) in order to identify these groups and target them in a second step. To date, Germany has lacked even a basic definition of energy and mobility poverty.

Reporting obligations and defining energy poverty

The EU provides further impetus at the national level through **existing reporting obligations.**[24] For instance, governments are required to report on energy poverty and the social impact of climate policy measures. This is done as part of the National Energy and Climate Plans (NECPs). States are also required to provide an overview of existing and potential measures to combat energy poverty, including the financial resources earmarked for this purpose. In its NECP, the German government has so far limited itself to referring to the German social system, but without providing the required quantification.[25]

The **Energy Efficiency Directive** (EED), amended in 2023, defines the term "**energy poverty**" for the first time in a manner that is legally binding for Member States, and also refers to suitable indicators.[26] The Directive calls on Member States to take appropriate measures to combat energy poverty and also to define the term "vulnerable customer". In particular, the intention is for households affected by energy poverty to benefit more from energy efficiency measures. To support those affected by energy poverty, Member States are therefore urged not only to take measures to increase energy efficiency in order to mitigate negative distributional effects, but also to prioritise the use of available public funds from carbon pricing for energy efficiency measures. Furthermore, they should act as early as possible in order to prevent such effects.

The German government should now consistently take up this impetus from Brussels for a more socially equitable climate policy. As the guardian of the European Green Deal, the European Commission should be strongly committed to its consistent implementation. To ensure the long-term sustainability

[24] European Union (20 September 2023): Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955. https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32023L1791.

[25] European Commission (2023): Update of the integrated national Energy and climate plan - Draft. https://commission.europa.eu/system/files/2023-11/GERMANY-%20DRAFT%20UPDATED%20NECP%202021-2030%20EN.pdf.

[26] "Energy poverty [means] the lack of access by a household to essential energy services, where these services ensure a basic and adequate level of living standards and health, including an adequate supply of heating, hot water, cooling and lighting and energy for the operation of household appliances, in the relevant national context and taking into account existing national social policies and other relevant national measures, caused by a combination of factors, including at least unaffordability, insufficient disposable income, high energy expenditure and poor energy efficiency of housing." European Union (20 September 2023): Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955. https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32023L1791.

of an ambitious European climate policy, it is crucial to establish a robust social safety net at an early stage alongside measures to support households in their transition, and to implement the "leave no one behind" principle. Otherwise, the rapid rise in fuel, heating oil and gas prices, particularly after the introduction of ETS2 in 2027, could lead to households being overwhelmed by high costs if important transition measures have not yet been implemented, or have only been implemented inadequately (see Insight 9). In poorer Member States with a strong dependence on fossil fuels, overburdening could already occur at lower prices.

During the new EU Commission's term of office, Germany's task will be to stabilise the Green Deal. Additionally, it must also demonstrate the opportunities that the transition presents to people and make them tangible, not least in order to secure motivation and acceptance for effective climate action in the European Member States.

Insight 8: Climate policy measures require social checks

Every climate policy measure, weather a ban, subsidy or tax, has a distributional impact on different dimensions of social justice. Each of these need to be analysed precisely, both across and within specific groups and deciles of the income distribution. Each climate policy measure should therefore be subject to a social check prior to being introduced. Beyond that, all climate policy measures should undergo regular review to assess their social impacts. Meaningful indicators and a good data basis are required to ensure integrated social checks and to monitor progress.

The goal of achieving greenhouse gas neutrality by 2045 means that every sector must significantly reduce its emissions. The transition in the building and transport sectors, as well as in the food sector, is now coming into focus, bringing it closer to people and households in Germany. This is why questions about the distribution and socially equitable design of the transition are urgent and important. Taking an integrated approach to climate and social policy means identifying, analysing and taking into account possible interactions as early as the concept development stage. Progress in one area should not result in setbacks in another.

Social checks when introducing any climate policy measure

Even if climate policy is primarily focused on avoiding emissions, it can no longer be considered in isolation from social policy. This has been demonstrated, among other things, by the debate surrounding the Building Energy Act. This requires an **upstream social check when introducing any climate policy measure**. This should analyse the possible distributional effects of the relevant measure at an early stage, but also highlight potential opportunities. The European Climate Council is also proposing something similar at the European level (ESABCC 2024).

In Germany, social checks are already part of the legislative process, for example when assessing the administrative burden or the impact on consumer prices. A social check would ensure that climate policy always has the social dimension in mind. It would also identify the opportunities arising from the transition (see Insight 5). As well as the financial distribution effects, intangible effects such as health and the distribution of public space should also be analysed in the social impact assessment. Particular attention should be paid to disadvantaged groups, such as people with disabilities, migrant communities, older people and children.

A social check in the Building Energy Act could have identified households particularly at risk of financial hardship at an early stage. In addition, a subsidy scheme could have been designed for owner-occupiers at risk of poverty, as is now being implemented to some extent with the new BEG subsidy. Accompanying support measures could have been introduced for people struggling to cope with building conversion measures, as well as limited exemptions for the elderly or those suffering from dementia. The aim is not only to increase acceptance of climate policy measures, but also to ensure that the burden is distributed fairly and equitably.

The Federal Climate Action Act already recognises that the social dimension must be considered separately.[27] However, insufficient progress has been made on its implementation to date. Nevertheless, a socioeconomic impact assessment of the scenarios in the projection report, analysing the distributional effects of various instruments in the building and transport sectors, is now available for the first time (Öko-Institut; Fraunhofer ISI; IREES 2024). The social dimension has also been strengthened in the amendment to the Federal Climate Action Act. The Council of Experts on Climate Change is now expected to comment on the social distributional effects of climate policy measures in its reports and statement, based on the findings submitted to it by the Federal Government.[28]

These ex-post evaluations of policy measures are important. However, it is also essential to conduct an ex-ante analysis of the distributional effects before introducing climate policy measures. Such a social check should consider more than just income effects and be integrated into the policy process at an early stage. The Climate Action Programme 2023 already refers to "social monitoring" (Federal Government 2023c), which could be developed into such an ex-ante social check. However, neither social monitoring nor the **climate check** envisaged in the coalition agreement has yet been implemented**.**

Development of indicators and availability of data

In addition to the social check, a targeted approach to the social dimension is also needed. While there are clear climate policy goals such as limiting global warming to 1.5°C, achieving greenhouse gas neutrality, setting targets for expanding renewables and ramping up electromobility, the social justice dimension is less clearly defined.

To date, the so-called socio-cultural minimum subsistence level has defined the minimum monetary requirement for an adequate standard of living,[29] and social security has aimed to ensure this standard. In the international debate, the concept of well-being is discussed as a further development of prosperity (Lamb and Steinberger 2017). This concept also underpins the UN Sustainable Development Goals (SDGs). These goals combine social development, climate action and social issues. For instance, the SDGs include decent work and economic growth, poverty eradication and health as goals.

These goals must be accompanied by **indicators** that can be monitored over time. Effective indicators help to identify the scale of the problem and monitor the success of policies. Particular poverty

[27] The Federal Climate Action Act refers to "ecological, social and economic consequences".

[28] German Bundestag (26.04.2024), KSG: Bundestag amends the Federal Climate Action Act. https://www.bundestag.de/dokumente/textarchiv/2024/kw17-de-klimaschutzgesetz-999794.

[29] Federal Constitutional Court, Guidelines on the Judgement of the First Senate of 5 November 2019,1 BvL 7/16.

situations such as "energy poverty" and "mobility poverty" should be focused on here. **Opportunity indicators** could also demonstrate progress in terms of accessing public transport, for example.

Indicators enable comparisons and rankings between countries. The European Union (EU) already provides the necessary data for these indicators from the European Union Statistics on Income and Living Conditions (SILC). Figure 5 shows an example of the indicator "Proportion of households unable to keep their home adequately warm". Germany is above average for central and northern European countries.[30]

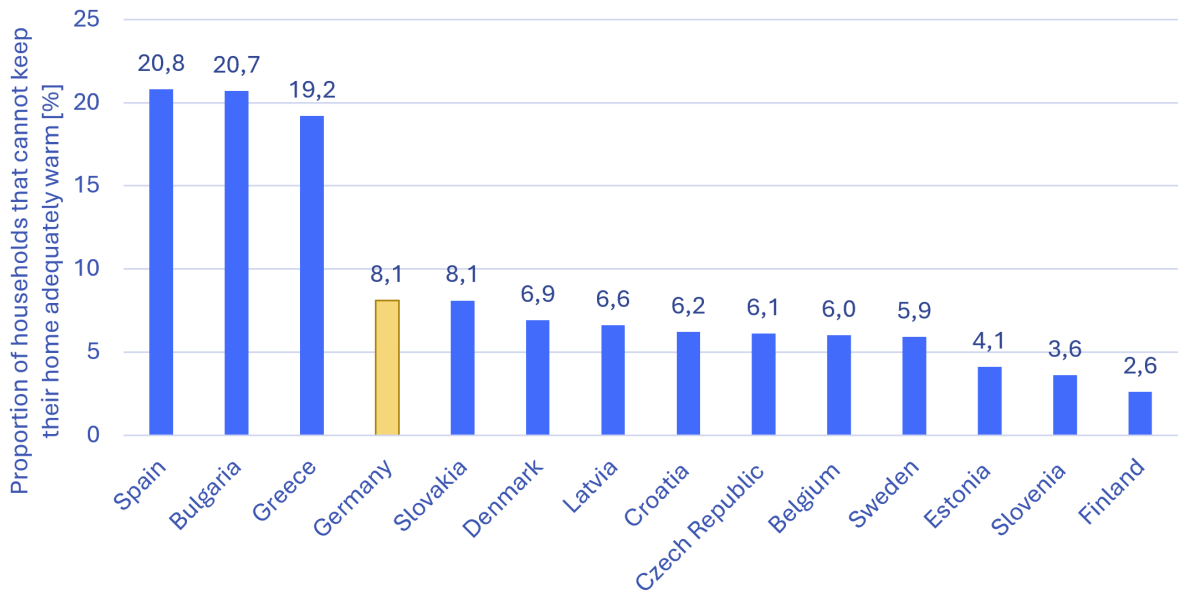

Figure 5 : Energy poverty using the example of the indicator "Households unable to keep their home adequately warm". Own illustration based on Eurostat (2024a).

When developing indicators, Germany can draw on the preparatory work of the EU or other European countries. For instance, the UK government's Climate Change Committee regularly uses selected indicators to assess progress on climate action in its reports (Climate Change Committee 2022).

However, one issue in Germany is that much of the **necessary data** is unavailable (SVR 2023). For instance, reliable data on the energy efficiency of buildings is lacking. Better data availability for scientific purposes is a key prerequisite for meaningful social checks and progress monitoring. Moore et al. (2024) provide an initial overview of the data situation.

[30] It is not possible to determine from the data whether this is due to a low income, a poorly insulated home, high heating costs, a high room temperature perceived as appropriate or a combination of these factors, and further analysis would be required.

Insight 9: The four pillars of a socially just transition: Infrastructure, targeted subsidies, regulation and climate dividends

To shape a socially just transition it is essential that no one is overwhelmed by rising costs and demands. Rather, as many people as possible should be able to contribute to the transition. Therefore, a socially just transition requires the following four pillars.

In order to shape a socially just transition, it is crucial that nobody is overwhelmed by rising costs and demands. Furthermore, everyone should be able to contribute positively to the transition. In addition to the necessary compensation, it is therefore important to focus more on the transition itself. This is particularly pertinent in view of the second European Emissions Trading Scheme (ETS2), due to commence in 2027 (see Insight 7). Otherwise, sharply rising prices or additional costs for the transition could overwhelm people (Henze and Stahl 2024). This requires a forward-looking facilitation and relief architecture (see Figure 6).

The **four pillars of a socially just transition** for private households are

1) the expansion of climate-friendly public infrastructure and services of general interest,
2) targeted subsidies and support for the transition for lower and middle income groups,
3) regulation, and
4) the reimbursement of revenue from carbon pricing, initially in the form of a per-capita climate dividend, later differentiated by income.

Pillar 1: Expansion of climate-friendly public infrastructure and services of general interest

A successful transition in which everyone can participate requires **good public and social infrastructure**. This is essential not only for mitigating the climate crisis, but also for participation as a value in itself, which can promote social cohesion. There is considerable potential here to improve the quality of life and create equal opportunities (see Insight 5).

People can only participate in the transition if the structures are in place that enable the use of low-emission alternatives. Infrastructure therefore means enabling and participation. This can be public infrastructure (e.g. safe cycle paths, charging stations, heating networks) or services of general interest (e.g. nurseries, day-care provision). For example, people can only leave their car at home if there is a suitable public transport service between their home and workplace. Households can only be supplied with clean heat if there is a renewable district heating network. The consumption of meat in school and workplace canteens can only be reduced if there are tasty vegetarian or vegan alternatives.

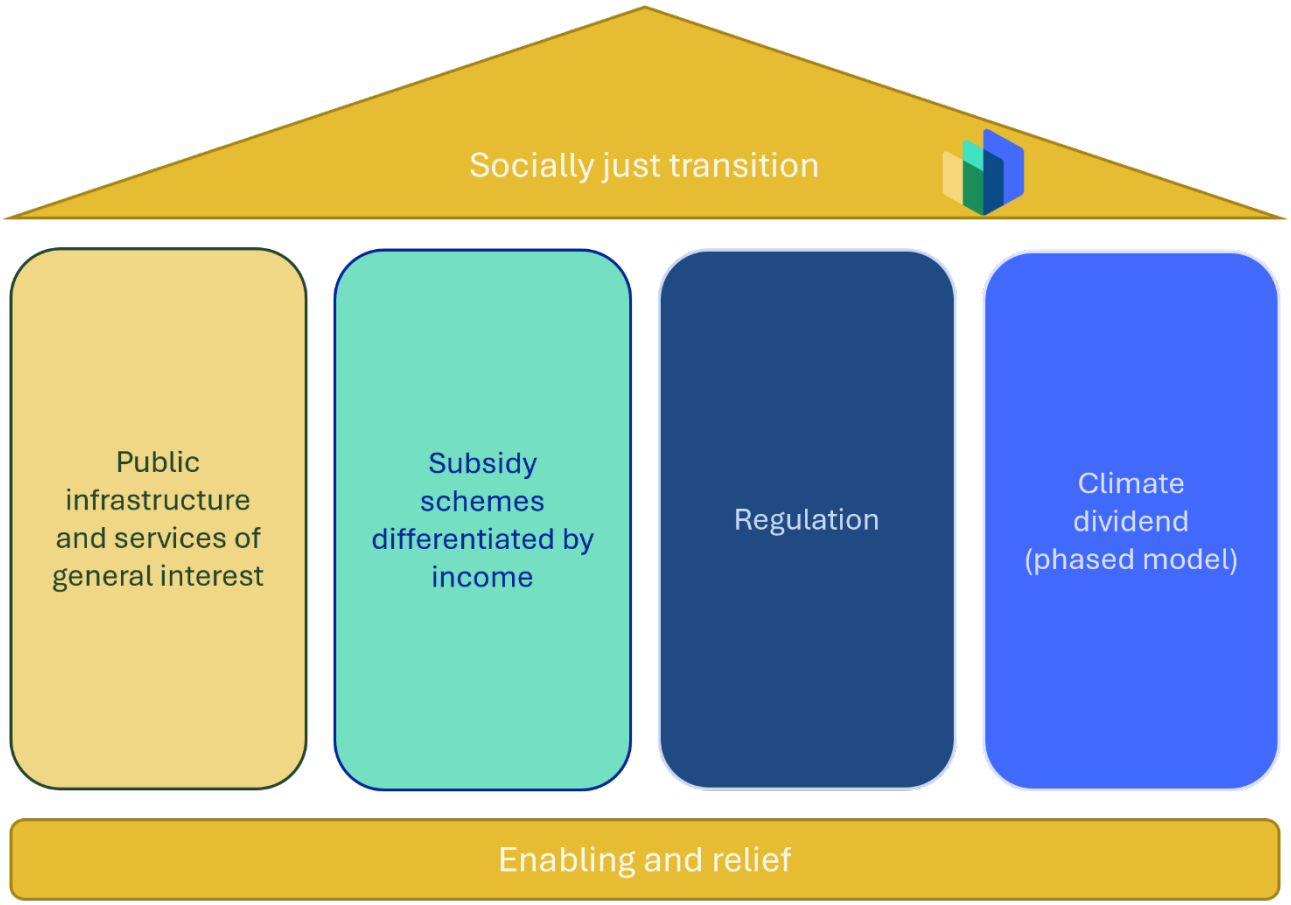

Figure 6 : Four pillars of enablement and relief for a socially just transition

Implementing a transport transition requires changes to the transport infrastructure such as expanding the public transport capacity, building safer cycle paths and footpaths designed for more people, and expanding the charging infrastructure. This will give everyone the choice between different climate-friendly modes of transport.

Renewable district heating networks provide important infrastructure for transitioning to a more sustainable heat supply. Where possible, publicly provided low-emission infrastructure can facilitate the conversion of households. From a social perspective, financing is important. Levy-financed models should be avoided, as these have a regressive distribution effect.

Providing social infrastructure can make the transition easier for households. If there are communal areas and parks in the immediate neighbourhood, households may be able to downsize. Good local amenities, such as day-care centres or social centres, reduce the need for mobility (see Insight 6). Having medical practices or shopping facilities for everyday needs close to home can also help to reduce traffic.

Pillar 2: Targeted subsidies differentiated by income and support for the transition

So far, targeted subsidies relating to climate policy have mainly been granted as a percentage of the costs incurred or as a lump sum. This means that only households who can cover the majority of the costs themselves from their income and available assets can benefit (see Insight 4).

Although the focus on targeted subsidies for higher-income households was justified for a time, as it addressed early adopters and households with high carbon emissions, and thus reduced the cost of heat pumps and batteries, a **paradigm shift in subsidy policy** is now required.

Those who are unable to raise the necessary funds themselves will continue to live in unrenovated flats and houses and drive old, high-consumption combustion engines, which poses the risk of a carbon lock-in. Further measures should be introduced at an early stage to enable those on lower and middle incomes to switch to a carbon-free lifestyle more quickly – and not just from a climate perspective. Above all, this requires **targeted support instruments**. A balance must be struck between simplicity and differentiation by income.

Example: Social leasing in France

Even if public transport is expanded quickly, many households, particularly in rural areas, will remain dependent on cars for some time to come. They should be given access to electric cars. One possible solution could be a state-subsidised leasing model for electric cars with fixed monthly instalments for low-income earners.

A similar model was introduced in France at the beginning of 2024, known as social leasing ("Leasing électrique" in French) (Service-public.fr 2024). It was available to French citizens with a taxable income less than EUR 15,400 who had to commute to work. Fully electric small cars manufactured in Europe (under 2.4 tonnes and costing less than EUR 47,000) could be leased for a maximum of EUR 150 per month. The most favourable leasing contract was EUR 49 per month. A minimum term of three years applied. The scheme was very well received: within a month, twice as many applications (50,000) were accepted as had been previously forecast. Applications could no longer be submitted from mid-February 2024 onwards. A new roll-out of the scheme is planned for 2025. The French model could be adapted and further developed for the German context.

Schleswig-Holstein, for example, has launched a social subsidy scheme for households receiving basic income support. This scheme offers grants for transition costs ranging from heat pumps and wall boxes to balcony solar power systems. However, demand has been limited to the latter, probably because they involve little investment and can also be installed by tenants (Müller 2023).

In contrast, the newly introduced targeted subsidies for replacing household heating systems as part of the Federal Funding for Efficient Buildings (BEG) subsidy scheme are aimed at households with lower incomes. This means that retired couples and young families, for whom a heat pump is a viable option, are also eligible. [31]

[31] The extra subsidy of 30 per cent of the total costs is available up to a taxable household income of EUR 40,000. For a family with two children, this equates to two gross monthly incomes of EUR 3,500, which is exactly the average for jobs subject to social security contributions.

Example: Building subsidies in the UK

Between 2002 and 2013, renovation schemes were implemented in the UK that focused particularly on vulnerable or low-income households.

Energy suppliers were required to implement energy-saving measures. These ranged from small measures, such as installing energy-saving shower heads and light bulbs, to insulating walls, roofs and new windows. The suppliers also took responsibility for the organisation and procurement, making the process cost-efficient. Each energy supplier had a clear carbon reduction target. These savings targets were exceeded. Property owners and tenants in social housing benefited most from the measures. The scheme was financed via a levy on energy bills. However, due to the resulting increase in energy bills, the scheme was not extended beyond 2013. The fact that the costs were regressive was also criticised. Since then, the number of energy-efficient refurbishments in the UK has collapsed (Bolton and Watson 2013; Bolton 2004).

In addition to low-income households living in their own homes, there are other groups who require **special support.** These include, for example, widows who are left alone in the family home. They are often overwhelmed, both financially and organisationally, by the prospect of making their home more energy efficient. Moving is emotionally inconceivable for them. Other groups that need support that goes beyond targeted subsidies include families with a migration background, older people living alone and those with a lack of education. They need help with applying for subsidies, planning the measures and finding reliable contractors.

However, it is not just about designing subsidy schemes differentiated by income; it is also about how these can actually be paid out (see Insight 10).

When it comes to spending on climate action, efforts should be made to achieve a "double dividend" for both the climate and social issues. For example, in the case of subsidy schemes for energy-efficient refurbishment, adherence to collective bargaining agreements by skilled trades businesses could be made a condition of funding, thereby improving working conditions in the sector.

Example: Subsidy scheme for low-income owners to renovate buildings in France (MaPrimeRénov' Rénovation d'ampleur)

Since the beginning of 2022, France has offered special subsidy schemes for low-income homeowners (MaPrimeRénov' Rénovation d'ampleur, until the end of 2023 and MaPrimeRénov Sérénité). The renovation subsidy varies depending on income. There are four income categories, whereby the subsidy is also dependent on the number of people in the household and whether you live inside or outside Paris.[32] For the lowest income category (MaPrimeRenov' Bleu), the subsidy is up to 80 per cent; for the highest income category (MaPrimeRenov' Rose) it is up to 35 per cent. The total investment subsidised depends on the improvement to the property's energy efficiency. Owners are required to make use of a refurbishment advisor at the central contact point. These costs are fully reimbursed for people on low incomes and reimbursed at 20 per cent for those in the highest income category.

Pillar 3: Regulation

Subsidy schemes and pricing instruments are not sufficient as tools. Especially when alternatives are already available and behaviour, production processes and consumption patterns need to change fundamentally, **regulation** must also impose requirements and prohibitions. Planning security is also relevant and helpful for economic players in order to enable them to make sensible investment decisions in the long term.

Even when many stakeholders with diverging interests are involved, a binding decision-making framework can benefit everyone. For instance, existing instruments such as carbon pricing and subsidy schemes alone are insufficient to ensure the energy-efficient refurbishment of existing buildings. Firstly, this often involves investment decisions with a long-time horizon: once the decision in favour of fossil fuel heating has been made, it cannot be easily reversed. Secondly, the decision-makers and beneficiaries are often not the same people (landlord/tenant dilemma). Nevertheless, emissions in the building sector must also be reduced to almost zero. Without mandatory and increasingly stringent standards in the building sector, the pace of refurbishment will remain too slow to achieve the climate targets. There is also a risk that low-income tenants will (have to) remain in unrenovated buildings and face rising energy prices.

Regulation can be flanked by other instruments (e.g. targeted subsidies, reform of the modernisation levy), which is essential in the building sector. Reform of the modernisation levy should ensure that warm rents do not increase for tenants (Behr et al. 2024). BUND and the Tenants' Association propose a one-third model (Mellwig 2024).

From a social perspective, the advantage of regulation is that it applies equally to everyone, unless justified exceptions are defined. Whether behaviour needs to change does not usually depend on income or wealth. In many policy areas, such as transport, regulation is a well-established and widely accepted tool. However, in climate policy it is often met with resistance, as it interferes with, or is

[32] For a single person living outside Paris, the lowest category (MaPrimeRenov Bleu) applies up to a taxable income of EUR 17,009. A single person living outside Paris falls into the highest income category (MaPrimeRenov Rose) if their taxable income exceeds EUR 30,549. Proof of income is provided via the tax return.

perceived to interfere with, individual lifestyles. However, regulation enjoys a high level of acceptance in the "climate citizens' councils", higher than pricing instruments (Lage et al. 2024).

Example: Tenancy law in Belgium

In Belgium, both salaries and rents are generally linked to the consumer price index. Between autumn 2022 and 2023, the ability to index rents depended on the individual property's energy efficiency rating. Inflation could only be fully passed on to tenants if proof of the three highest energy classes A, B or C was provided. This was partially possible for the middle energy classes D and E,[33] but indexation was not possible for the lower classes F or G, or in the absence of proof. In October 2023, this system was replaced with an indexation formula applicable to the four lowest energy classes D, E, F and G (Le logement en Wallonie). In France, landlords whose buildings have an energy efficiency rating of F or G are also not permitted to increase the rent (Centre for European Consumer Protection e.V. 2024).

One way that both incentivises landlords to renovate and protects tenants from high and rapidly rising warm rents is to link rent increases to the energy standard of the property or flat. Politicians should examine the possibility of introducing such a link into German tenancy law.

Pillar 4: Climate dividend and hardship allowance as hedging against high prices

In addition to infrastructure, targeted subsidies and regulations differentiated by income that enable participation in the transition, there is also a need for direct hedging and compensation in the event of high prices. Prices could rise further with the introduction of ETS2 at the European level.[34] Compensation is therefore important in the short and medium term, at least until the switch to emission-free heating systems and vehicles has been completed. The **climate dividend** is a suitable means of achieving this. It is directly linked to carbon pricing as a climate policy instrument.

At its core, the climate dividend ensures that all revenue generated by carbon pricing under the BEHG and ETS2 is refunded to consumers. Since those on lower incomes have a smaller carbon footprint, they would benefit from the reimbursement despite the higher financial burden of carbon pricing relative to their income (Kalkuhl et al. 2021). A climate dividend alongside carbon pricing would ensure that all polluters pay for their emissions and that those on lower incomes do not have to bear a disproportionately high financial burden.

As the challenges of the transition evolve over time, the role of the climate dividend must adapt accordingly. In order to meet these requirements, a phased model for the climate dividend should be introduced (see Figure 7).

In the **first phase**, the aim is to pay out a **per-capita climate dividend** as quickly as possible – preferably by 2025 or 2026 at the latest. This would ease the financial strain on low-income households and prevent them from having to spend a disproportionate amount of their income on the transition. It would

[33] Slightly different requirements applied in the three regions of Belgium (Brussels, Wallonia and Flanders). See: notaire.be (2022).

[34] Estimates range from 60 to 380 euros per tonne of carbon in 2030 (Pahle 2024).

also send a visible signal to the population that, although the state levies incentive taxes, it does not simply use them as a source of income, but rather redistributes them back to the population. It is crucial that the redistribution mechanism is effective and well communicated before prices potentially rise sharply. Such a mechanism is also required independently of carbon pricing, as the energy crisis has demonstrated.

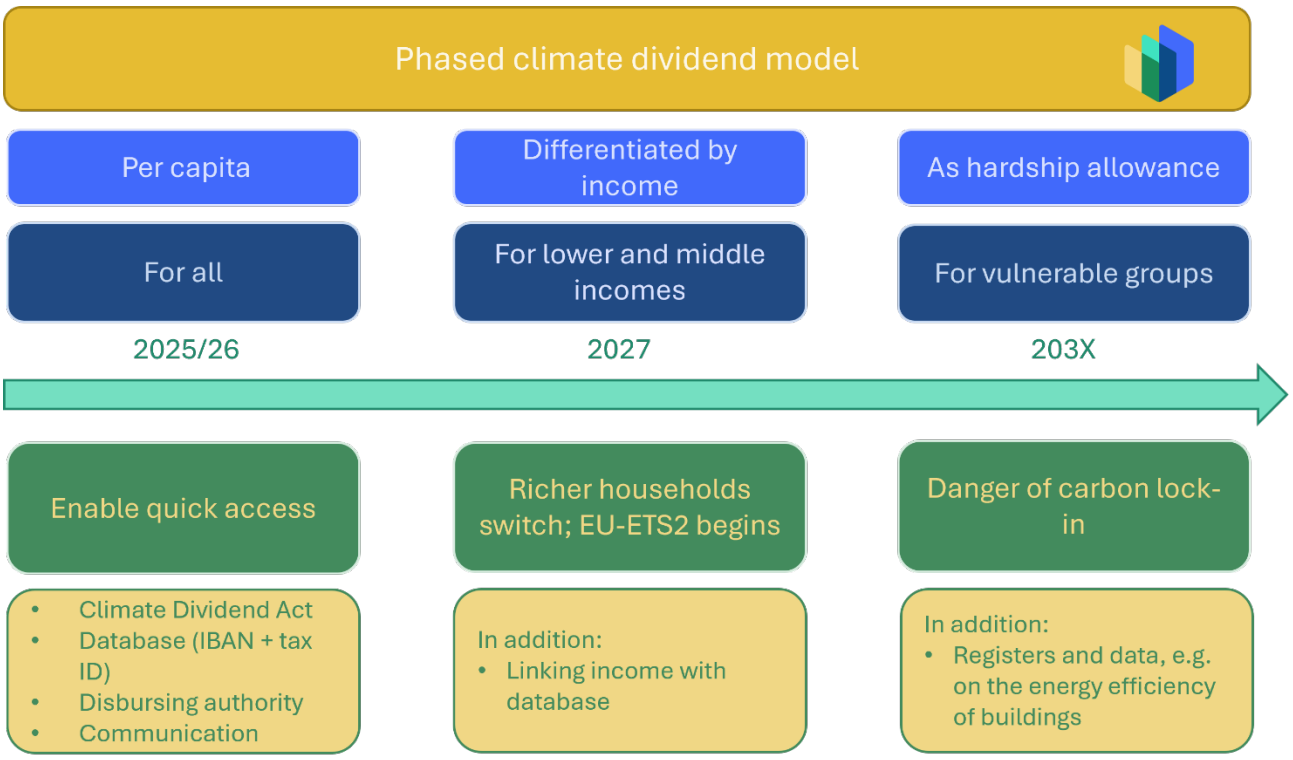

Figure 7 : Climate dividend step model

From 2027 onwards, it will be necessary to differentiate the climate dividend according to income. This is primarily because richer households have the financial capacity to convert their homes and vehicles to lower-carbon alternatives in the event of rising carbon pricing. Without specific subsidy schemes, poorer households run the risk of remaining with high carbon emissions for longer. In the medium term, a per-capita climate dividend could therefore lose its progressive effect. Conversely, there will be stronger EU requirements regarding the use of revenue from carbon pricing (see Insight 7). In this context, a climate dividend differentiated by income would be more likely to comply.[35] However, this requires further clarification by the European legislator.

In addition, it will also be important to consider other criteria besides income in order to target measures more specifically. This is because people within different deciles of the income distribution are affected to varying degrees by carbon pricing (Endres 2024; Kellner et al. 2023). Carbon emissions from housing depend more on the type of heating used in homes and the homes' respective energy efficiency than on income.

[35] See Busch and Harder 2024, FÖS & Öko-Institut (2024).

Differentiating according to income or other criteria would be administratively more complex than a per-capita climate dividend that is the same for everyone (see Insight 10). Further development phases should therefore be introduced: the **second phase** from 2027, which should coincide with the switch to ETS2, requires **differentiation by income** aimed at medium and lower income groups. This could be implemented through either a simple cap or an income-based scale. Taxation of the climate dividend should also be examined, as is already the case in Austria (see box). It is important here that no disproportionate additional expense is incurred due to extra tax returns (see Insight 10).

In a third phase, the climate dividend would develop into a **hardship allowance** with a support function for people affected by fossil fuel dependency and a carbon lock-in. With the help of social indicators, the climate dividend could then be paid out to vulnerable groups. However, incentives to switch should be maintained and it should be made clear that not all costs will be covered unconditionally. Those affected and with no alternative to switching must be identified carefully. This third phase is the most difficult to implement from an administrative point of view. Here too, a balance must be struck between simplicity and accuracy of fit.

Example: Climate bonus in Austria

In Austria, revenue from carbon pricing is reimbursed to citizens in a two-stage process. Each adult resident receives the basic amount of EUR 145 (as of 2024), while children receive half this amount. In addition, regional compensation is provided depending on the municipality's public transport connections.[36] This ranges from 50 to 145 euros in the most rural areas. People with limited mobility always receive the maximum amount of EUR 290 (BMK 2024). Since 2024, the climate bonus has been taxable for those on high incomes (BMK 03/06/2024).

The challenging **technical and administrative implementation** must be progressed at full speed to ensure that a system is in place to protect people from excessive energy costs by 2027 at the latest, when ETS2 prices are expected to rise. The prerequisites for this must be established today (see Insight 10). The first phase requires:

1) a Climate Dividend Act to regulate payments,
2) a database linking IBANs and tax IDs, which is currently being developed,
3) a disbursing authority to carry out the payments (including a call centre to handle any issues that arise, and the ability to make payments to individuals without an account), and
4) a communication strategy to ensure that the climate dividend mechanism is comprehensible and that there is sufficient acceptance of the carbon pricing instrument.

For the second phase, income also needs to be linked to the IBAN and tax ID. Further registers and data are required for the third phase, such as information on the energy efficiency of homes.

Furthermore, the climate dividend should not replace any necessary social benefits, nor should it be misunderstood as "transition money" that households can use to finance their transition. Even with a climate dividend, it would not be possible to finance the conversion of a heating system without additional targeted subsidies.

[36] For further information on the statistical classification of Austrian municipalities, see https://www.statistik.at/services/tools/services/regionales/klimabonus.

Additionally, the extent of the increase in carbon pricing will depend on the climate policy measures implemented in the heating and mobility sectors. The more households that have already switched, the less the price will rise. Therefore, the best way for households to protect themselves against high prices is to adopt a climate-friendly lifestyle – promoted and facilitated by the other pillars.

Insight 10: A modern state promotes Social Climate Policy

In order to differentiate climate dividends and subsidies by income, information is needed about household incomes. To avoid non-take-up of means-tested subsidies, particularly by less educated households, information on households' incomes should be automatically made available to the relevant bodies responsible for subsidies. In a modern welfare state based on digital structures, the tax administration could provide this information. This would reduce bureaucracy and make public administration more accessible.

The welfare state does not pay out benefits automatically and without an application. This fact is currently putting a stop to calls for a **climate dividend differentiated by income.** Income-related social benefits, such as the citizens' allowance or basic old-age security, always require an application, as well as proof of household income and assets. In addition, most social benefits are based on a monthly calculation. This means that all changes such as overtime and night bonuses, pension increases and repayments of ancillary costs must be reported and included in recalculations. Low-income households in particular often lack the skills and resources to submit these applications or feel ashamed to claim social benefits. In the case of the citizens' allowance, for example, 37 per cent of those entitled do not claim the benefit, and up to 75 per cent in the case of child supplements (Buslei et al. 2019; Bundesregierung 2023e; Bruckmeier et al. 2021; Wilke and Sielaff 2024; Bundesregierung 2023b).

In order to counter this development and the foreseeable shortage of skilled workers in social benefits administration, plans are in place for a digitalised administration system in which citizens submit their documents and information to the state only once (**once-only principle**). The best-known example of this is the planned universal child benefit scheme. However, the implementation of the digital welfare state is progressing very slowly, as the National Regulatory Control Council recently confirmed (National Regulatory Control Council 2024). This approach is therefore not recommended for a climate dividend differentiated by income.

By contrast, the tax office already has all income data (salary, wage replacement benefits and investment income), as this is transmitted digitally and automatically from the source. The same applies to people who do not submit a tax return. Self-employed people have to submit a tax return anyway.

A **social benefit involving the querying of tax data** has been established for the basic pension supplement. Pensioners who have had very low wages for decades are eligible for this supplement. To ensure that this is paid only to those in need, the pension insurance company electronically checks with the tax administration whether sufficient income is available within the marriage, for example. This model would be particularly advantageous for paying a climate dividend differentiated by income, as existing administrations with existing bulk operations (e.g. pension insurance or the Family Benefits Office) could be utilised. The authorised authority could also access the tax ID and IBAN data. If the climate dividend were organised in this way, it could be allocated to the low-threshold social justice system.

An alternative would be **direct payments from the tax authorities**. Modelled on the 2022 energy price lump sum for employees, the climate dividend differentiated by income could also function as a form of negative income tax. With a direct payment mechanism, there would be no need for indirect payments via employers. In both variants, neither an application nor proof of income would be required.

However, if the climate dividend were to be developed into a hardship allowance, further information would be needed on public transport availability and the energy efficiency of the respective building.

In addition to income and assets, information on commuting distances and refurbishment costs forms the basis for **targeted social subsidy schemes**. Until now, subsidy schemes have been administered by the Federal Office for Economic Affairs and Export Control (BAFA) and the German Development Bank (KfW). The amendment to the Federal Funding for Efficient Buildings (BEG) scheme introduced income-based targeted subsidies for the climate sector for the first time. These subsidies are based on taxable income. However, this data is not automatically retrieved from the tax office and must instead be submitted by the applicant in the form of a copy of their income tax assessment. Ultimately, this means that anyone who has not submitted a tax return for the relevant years will find the application process very bureaucratic. This particularly affects people on low incomes. This is because, up to an annual gross income of around EUR 10,000, 90 per cent of people do not submit a tax return. This proportion decreases as annual gross income increases. For top earners, it reaches a level of around 30 per cent (Hauck and Wallossek 2021). One solution would be to introduce an "application-free employee assessment", as used in Austria.[37] The tax office would then automatically issue a tax assessment.

This contrasts with the **tax deductibility of energy-efficient refurbishments** (see Insight 4). However, this is not worthwhile for those who do not pay income tax at this level. Currently, the deductible amounts can only reduce the tax liability to zero euros. The only exception is the mobility bonus for low-income earners with long commutes.[38] This can result in a negative tax liability, meaning these individuals receive a payment. If this regulation were extended to include energy-efficient refurbishments, it would be easy to differentiate by income, as the tax office already holds the necessary income information. Only the tradesmen's invoices would then have to be submitted. Advance applications would not be necessary. However, as with the previous targeted subsidies, the issue of pre-financing the grants would arise. Lower-income and older people in particular do not have the financial resources or even the means to obtain a bridging loan.

It will be difficult to create building subsidies differentiated by wealth. Since the suspension of the property tax, no data on the property situation has been collected.

The advantage of structuring the social subsidy scheme as a negative income tax is that *Elster* is already a widely used online platform[39] and the tax authorities already hold a lot of information about households, such as joint tax returns for married couples and child benefit payments. Furthermore, if

[37] A commission from the Federal Ministry of Finance is currently developing proposals for implementing the Austrian model (Bröcker 2024).

[38] For journeys of 21 kilometres or more, 15 cents per kilometre are paid out.

[39] Registration with *Elster* could be made even easier to enable everyone to access the service. In addition, it must remain possible to submit forms on paper.

designed as a negative income tax, this could facilitate the processing of tax data in compliance with data protection regulations.

The basic logic that taxes flow towards the state rather than away from it suggests, however, that social subsidy schemes and climate dividends should not be handled via the tax administration. Furthermore, the federal states are responsible for tax administration, and federal politicians might prefer to appoint a federal authority, such as the Family Benefits Office, to oversee these schemes.

Regardless of the administrative option chosen, care should be taken to ensure that the procedure for citizens complies with the core tenets of the once-only principle and simplicity. In order to ensure that the limited subsidies are targeted as effectively as possible at groups who would otherwise not be able to transition, an automated income check is required.

Insight 11: A Social Climate Economy is necessary

Our economy is facing many challenges. As well as coping with climate change, we are also confronted with demographic change, the digitalisation of work and geopolitical changes. The question arises: Who will pay the costs of addressing these challenges? On the path to climate neutrality, our social market economy therefore requires ecological and social renewal. A new vision of a Social Climate Economy can reconcile climate action, economic freedom and social security.

Of course, the socially just transition affects more than just households. It challenges the entire economy and society to consider how the **social market economy's promise of prosperity** can be renewed. This approach has brought prosperity to broad sections of the population by distributing growth. Through the social partnership between trade unions and employers' organisations, good working conditions were negotiated in collective agreements. High wages formed the financial basis for adequate pensions and other social benefits. However, structural unemployment and a large low-wage sector have created a group for whom this promise of prosperity no longer applies. They and their children experience poverty and limited participation. The climate-neutral and socially just transition therefore needs to focus on renewing the promise of prosperity for the whole population. It is also necessary to discuss how prosperity can be expanded to encompass aspects such as time, health, and participation in **well-being**.

The traditional social partnership is facing further challenges from demographic change and the digitalisation of the **world of work**. A Social Climate Economy must therefore also address new issues: What will the future labour market look like in the light of Germany's rapidly changing industrial landscape? Which existing jobs will survive the transition? What new roles will emerge and how will they be paid? The newly emerging green growth companies often have neither a collective labour agreement nor a works council. What are the prospects for "good work" in a climate-neutral economy? How can skilled workers be recruited for the transition amid competition for the limited pool of talent?

Germany and Europe are also facing new **geopolitical challenges**. How can European industry be protected in the context of global competition? What will security cost Germany in the future?

Besides demographic change, the changing world of work and the restructuring of industry are also challenging the financing of the **welfare state**. What impact will the changing world of work have on the financing of Germany's welfare state? What if growth is no longer sufficient to defuse distribution conflicts? How can the costs of demographic change in areas such as pensions, healthcare and social

care be financed fairly in times of low growth? And how can education and retraining be guaranteed, let alone expanded, when public funds are becoming scarcer?

All of this is bringing the question of **financing** increasingly to the fore. How can a socially just transition be financed in the face of simultaneous challenges?

Answers to this question vary widely depending on one's political and economic worldview. Proposals range from traditional instruments such as taxes and levies, to debt and special funds, as well as one-off wealth taxes or private investment in public assets. Redistribution occurs not only from "bottom" to "top", or from labour to capital and vice versa, but also from future to present generations and vice versa. Without redistribution and subsidy schemes at the private household level, even straightforward investment obligations (imposed through regulation) or investment incentives (e.g. due to high carbon pricing) could lead to significant financial burdens that some may find difficult to bear.

On the path to climate neutrality, the social market economy therefore requires ecological and social renewal. Although the traditional conflicts over the distribution of wealth between labour and capital have lost none of their significance, it is now necessary to drive forward the development of a Social Climate Economy that reconciles climate action, economic freedom and social security. A Social Climate Economy must establish a broad social compromise that enables everyone to participate in a new, climate-neutral prosperity.

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