Climate Change Policy in Germany: Capacities and Driving Forces

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Abstract
Germany is one of the leading countries in both renewable energy policy and climate change policy. The present government has set demanding goals and actively supports international climate negotiations. This progressive policy had already been started in the 1980s under a conservative (and markedly economy-friendly) government. This development could be explained by favorable capacities and capabilities built up over many years in a conflict-laden process at all levels of society, starting in the area of air pollution control policy in the 1970s. A clear majority of the population supports this policy and even would like to see the government strengthen its activities at the global level. However, only little information is available on the costs individuals/social groups have to bear due to the highly demanding progressive goals for the “post-Kyoto” period. Will the commitments to global justice sustain if the monetary burdens become apparent? The answer seems to depend also on the “moral capacity” of Germany to move towards the ideals of global justice. The paper discusses various capacities for climate change policy with a focus on moral-ethical aspects.

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1. **German Climate Change Policy: A Still Unsolved Puzzle (even more so than in other countries)**

Germany is one of the leading industrial countries in climate change (and related renewable energy) policy. This applies to outcomes (GHG emission cuts), the overall capacity (institutional, informational-cognitive, technological, scientific) for climate policy management, and the international diffusion of its instruments (e.g. the so-called feed-in law). One might say Germany ranks number 1: what other country can match these criteria? Furthermore, not only the present government but all preceding governments since the 1980s – when systematic international climate discussion and negotiation have begun – as a rule actively supported the development of a demanding global climate policy and a corresponding climate regime under the roof of the United Nations. This globally oriented policy had already been started in the 1980s under a conservative (and explicitly economy-friendly) government (CDU/FDP coalition). The following “red-green” government (1998-2005) gave further impetus, and the current conservative-social democratic government – in power since autumn 2005 – even made national and global climate policy a top issue on its agenda, decisively heightening the dynamics of supra- and international climate negotiations. This is remarkable, since at first many people (also social scientists) felt sure that with a CDU majority the support for renewable energies would decrease strongly while increasing sharply in favor of nuclear energy. The progressive role of the German government during the recent EU climate, energy and the G8 summits were widely acknowledged by foreign observers, the public media, the scientific community and environmental organizations. Since winter 2006/07 climate issues have dominated the public agenda, and all relevant governmental units – with the exception of the ministry of economics – undertook great efforts to demonstrate their commitment to an ambitious national and global climate policy, be it the ministry of agriculture, for development aid or for research, not to speak of the extremely active ministry of the environment, which used the “climate hype” for positioning itself as the ministry for ecological industrial transformation and innovation. The long continuing commitment to an effective international climate regime, the rather sophisticated climate diplomacy of various governments to avoid or break impasses and the preparedness to give a good example (e.g. above average self-commitments) made Germany a central actor in international negotiations which finally led to the ratification of the Kyoto Protocol (KP). Without this persistence, one might say, the KP would not have been ratified in 2005. And wouldn’t the future for a post-Kyoto regime look much dimmer if the German government had not pushed the climate issue at the recent G8 summit in Heiligendamm (June 2007)? This is, by no means, belittling the efforts of other progressive countries. But, on the one hand, Germany once again made the most demanding self-commitments with respect to GHG reductions (as long as other industrial countries would increase their efforts)¹, and, on the other hand, the other progressive countries may lack the necessary “critical mass” (political leverage) to exert similar efforts in the international arena.

As can be verified with empirical evidence, Germany can be characterized as an outstanding (or even top) climate policy pioneer, at least if viewed from the perspective of a “worldwide relative empirical optimum case” (i.e. in short, the best performing country among similar countries; this “label” does not exclude remaining strong weaknesses from an abstract or normative perspective). This leads to the question: Why is this so? What are the driving forces, favourable circumstances, capacities and capabilities and (perhaps) “unique” features which could explain Germany’s nationally and internationally outstanding climate policy?

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¹ The German government committed itself to reduce GHG emissions by 40 percent by 2020 (reference year 1990), if other industrial countries would commit themselves to a 30 percent reduction.
It is, primarily, these questions that will be addressed in this paper. The focus will not be on German climate policy as such or the complex (and – still – conflicting) processes in which it evolves. The focus will be rather on ethical/moral principles, norms, attitudes, arguments and behaviour as well as the role they play in domestic climate policy and politics. This choice originates from the observation that in national and international and negotiations on climate policy the issues of justice, fairness, equity and equality are gaining in importance. Such issues play a central role when it comes to responsibilities and to who ought to bear the costs of mitigating climate change or adapting to it. The second observation concerns a striking bias in the German discussion: justice, fairness, etc. are almost exclusively discussed as *global* issues, addressing unbalanced relationships *between* countries, mostly in “poor/rich”, “South/North” configurations. The domestic implications of justice/equity *within* countries rarely are discussed, neither by governmental actors or the scientific community nor by environmental NGOs or public media.

As it is, at least theoretically, known that the predominant type of policy instruments used in German climate policy usually leads to regressive distributional (social) effects, the question arises why the issue of *domestic equity* so far never entered the public and political agenda. Are the global injustices that are evidently related to climate change – i.e. industrial countries bear the bulk of responsibility for climate change while the developing countries will suffer most from its effects – so convincing and impressive that they created a collective consciousness of moral guilt strong enough to influence political behaviour? How can we explain that a large majority of Germans expect their government to strengthen its climate policy despite clear prospects of increasing personal monetary burdens?

1.1 Approach

A comprehensive analyse and explanation of the basic character and dynamics of German climate policy would need a multi-factor approach, tapping different strands of theory. To my best knowledge, there is no theory which comprises and integrates the interplay of basic (internalized) values/norms of specific (national) political cultures and the relevant factors (generally those focused in policy analysis) of a specific policy (here: climate policy), which altogether influence/shape the formation of attitudes, preferences, “ideological” predispositions towards this policy.

I do not aim at developing such a normative-empirical “combi-theory”. My main objective is to explore and discuss the various factors possibly relevant for the formation process of Germany’s climate policy. This is just a first step of an iterative process towards such a theory. Furthermore, to substantiate propositions on the influence of moral factors systematic empirical research is necessary. Unfortunately, what currently prevails among social scientists is rather speculation and prescriptive reasoning than “field research”.

The analysis of German climate policy is guided by the so-called capacity-building approach. According to the specific focus of this paper, the constitutive elements of this approach will be supplemented by the element of “moral capacity” for perceiving, acknowledging and adopting global responsibilities.
1.2 The Capacity Building Approach

According to the OECD Task Force on Capacity Development, “... capacity in environment relates to the abilities of a society to identify environmental problems and solve them, capacity development in environment relates to the ‘process’ by which those abilities are developed” (OECD 1994, p. 9; see also Ohiorhenuan/Wunker 1995). This broad definition encompasses a wide variety of material and non-material elements, e.g., visions and values, policies, strategies, and instruments; organizations, political, economic, social, and ecological structures; situations and information; actors’ resources, will, and skills. Many factors affect a nation’s capacity in environmental policy and management.

Using a combination of actor and system-oriented approaches, the development of environmental capacity may thus be defined as a multi-factorial process determined by:

(1) usually conflicting organized actor groups, their resources, their ability to form alliances, and their ability to cooperate in identifying and seizing (or even creating) situational opportunities;

(2) cultural, political and economic (structural) conditions, the environmental situation, and public awareness; and

(3) the nature of the problem to be resolved (as partly constituted by these factors); how easy it is to solve—which usually depends on the kind of interests and the clout of the polluters involved, the systemic nature of the problem, whether it is conventional or latent/creeping, etc.

Capacity building is not necessarily a steady, linear process: systems with low learning potential may fail to accumulate capacities for solving environmental problems, and even high capacities can decline. Furthermore, as this approach is concerned primarily with building and expanding capacities for environmental protection, the focus is on environmental proponents, whereas target groups (polluters) are in principle seen as restrictive factors—without excluding possible changes for the better.

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2 This chapter provides only a “shorthand version” of the capacity building approach. For a comprehensive description see Jänicke 2002.
In more analytical terms, capacities for environmental policy and management are constituted by:

1. the strength, competence and configuration of governmental and organized non-governmental proponents of environmental protection; and
2. (a) cognitive-informational,  
   (b) political-institutional,  
   (c) economic-technological framework conditions, and  
   (d) collective moral-ethical principles, values and norms.3

3 This dimension is added to the original concept.
The utilization of existing capacities depends on:

(3) the strategy and will & skill of proponents and
(4) situational opportunities.

This has to be related to:

(5) the structure of the environmental problem: its urgency, its complexity, and the power, resources and options of target groups, their allies and supporters (Jänicke 2002: 7).

2. Climate Change Policy: Commitments and Achievements

In Germany, the climate change issue began to play a more important role in political and public discussions in the mid-1980s (Watanabe/Mez 2004, Beuermann/Jaeger 1996, Cavender/Jaeger 1993). Up to that time problems of “conventional” air pollutants (e.g. Acid Rain, smog, forest dieback – *Waldsterben*) had dominated the discussion. It is likely that during that phase a public awareness of long-range transboundary pollution and the need for international cooperation (and certain political experiences in this area) has developed.

The following developments have been decisive for a relatively quick increase in political and public attention for climate change issues:

- Two large international conferences on climate change were held in the German town of Villach (1985, 1987)
- In 1986, the study group on energy of the prestigious German Physics Society (*Arbeitsgruppe Energie – AKE – der Deutschen Physikalischen Gesellschaft – DPG*) in a statement addressed to the public gave warning of an imminent climate catastrophe (“Warnung vor einer drohenden Klimakatastrophe”). This warning, however, was primarily meant to strengthen the position of nuclear power compared to fossil fuels. Yet, because of the Chernobyl nuclear catastrophe, which took place shortly after this publication, the intended effect to raise public acceptance of nuclear power did not come about.
- After this warning the quite influential weekly newsmagazine “*Der Spiegel*” started a series on the climate issue with a dramatic cover showing a flooded Cologne Cathedral (“Die Klima-Katastrophe” – *The Climate Catastrophe*, Der Spiegel, 11 August, 1986).
- The establishment of the Ministry of Environment in June 1986 strengthened the position (institutional, etc.) of those administrators within the governmental realm who already were committed to global environmental issues (in particular protection of the ozone layer, acid rain abatement).
- Of great importance for the political and scientific debate was the special parliamentary committee of investigation on “Precautions for the protection of the atmosphere” (*Enquete-Kommission des Bundestags “Vorsorge zum Schutz der Erdatmosphäre”*). This committee was set up for the years 1987 through 1990. Its work was widely esteemed and most relevant for climate-friendly consensus forming and determining future strategies (e.g. CO₂ reduction goal) within the

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4 *Bundestags-Enquetekommissionen* are consultative committees whose members are experts not belonging to parliament as well as members of parliament selected by the fractions represented in parliament. Such committees are established for the study and debate of an issue determined by parliament as being of great relevance for the country (based on art. 56 of the “Parliamentary Procedure of the German Bundestag”).
politico-administrative system. In its final report of 1990, the relevance of the climate issue was stated clearly: “It becomes apparent that the changes of the atmosphere and the climate to be expected will have grave consequences for the living conditions of humans and for the biosphere in general. These consequences cannot fully mitigated by precautionary measures. Dramatic developments cannot be ruled out.” A follow-up parliamentary committee (1990-1994) was set up dealing with the issue “Protection of the atmosphere.” The federal government has adopted the central recommendations of both committees in its climate policy.

- In contrast to the discourse on Waldsterben, which was characterized by many competing/opposing expert opinions on causes and effects, in the case of climate change a dominating opinion (not only of expert but also among governmental and economic actors) came about rapidly, namely that climate change must be acknowledged as a real problem and that it is caused primarily by the combustion of fossil fuels.

- Chancellor Kohl’s government declaration of 1987 (conservative-liberal coalition) was themed “Conserve the Creation”. He stressed the importance of national and international environmental protection for the future development of society and economy.

It was under this specific political-societal constellation that the then Chancellor Helmut Kohl announced in March 1987 that the climate issue was the most pressing environmental problem.\(^5\) This statement was followed about 3 years later by a government declaration announcing that efforts will be made to reduce CO\(_2\) emissions by 25 percent of 1990 levels by 2005.

The decisive inputs for setting most demanding governmental goal of GHG reduction – in its concreteness globally unique – came from the Parliamentary Committee mentioned above and the Ministry of Environment. In its 3\(^{rd}\) and final report “Protecting the Earth” (1990), the Committee recommended, inter alia, to deal with the climate issue as soon and as urgently as possible. It called for a 30 percent reduction of CO\(_2\) (and methane) emissions by 2005 and recommended an 80 percent reduction by 2050, the reference year for both goals being 1987. To reach these goals, the Committee emphasized the importance of introducing a new energy policy. Upon request by Chancellor Kohl in January 1990, the Ministry of Environment – supported by the Federal Environment Agency (Umweltbundesamt – UBA) – conducted a feasibility study which came to the result that a 30.5 percent reduction of CO\(_2\) would be feasible. The federal government finally agreed to a target of 25 percent CO\(_2\) reduction from 1987 levels in West Germany by 2005.

In a next step in this complex target-setting and policy-development process an “Interministerial Working Group on CO\(_2\) Reduction” (IMA) was established. It had the task to develop proposals on how to reach the target. Concerning some of these proposals it was important that IMA was chaired by the Ministry of Environment (cf. Watanabe/Mez 2004, Beuermann/Jaeger 1996). Although the German reunification process dominated the governmental and public agenda during the 1990s, the efforts of developing a German GHG reduction strategy were not impeded. This was mainly due to the intragovernmental institutionalization of the climate policy process and, perhaps, also due to the estimation that

\(^5\) 20 years later, on the occasion of the so-called German Energy Summit held on July 3, 2007, Chancellor Angela Merkel made a similar statement that gained much attention. She declared climate protection to be the biggest challenge of the 21\(^{st}\) century (cf. TAZ of 4 July, 2007: 8; FAZ of July 4, 2007: 9).
the highly inefficient and outdated energy structure of the former GDR provided good chances for a climate-oriented transformation.

Finally, after some modifications (no slackening, though!) of the CO₂ reduction target due to the new and challenging situation of a reunified Germany (since October 3, 1990), in 1995 the German government announced a CO₂ reduction target of 25 percent from (meanwhile) 1990 levels by 2005. Such a concrete reduction goal set by a government received highest attention around the globe. The new reference year 1990 instead of 1987 (now valid for both East and West Germany) made the target stricter than ever. Why did this happen although it had been clear even in 1995 that such a target would need quite fundamental structural changes in energy policy, which inevitably gave rise to sharp conflicts with the powerful actors of the traditional energy sector and their governmental allies (especially the Ministry of Economics)? The main reason for this rather bold governmental announcement seemed to be the extremely favourable opportunity of getting world-wide acknowledgment as climate protection champion: the pledge was taken during the first Conference of the Parties (COP 1) to the UN climate negotiations (FCCC) hosted by the German government in Berlin in 1995. However, this step also gave (as was hoped for) new dynamics to the stagnating process of international negotiations and decisively paved the way to the Kyoto Protocol of 1997. In an international perspective, it strengthened the position of the German proponents of climate policy, although economic actors were, so to say, compensated by their voluntary commitment to reduce CO₂ emissions instead of being forced to do so by regulatory measures such as the heat usage ordinance and a CO₂ tax – both instruments were strongly opposed by industry.  

Further outstanding commitments of the German government concerned both the EU and the international levels. With respect to the responsibilities under the Kyoto Protocol, Germany voluntarily took the largest share of the reduction burden on the EU (by pledging to achieve a 21 percent reduction in GHG emissions as against 1990 emissions by 2008-12. And already the former Minister of the Environment, Jürgen Trittin, announced in 2002 a German motion for achieving an EU commitment to reduce its GHG by 30 percent until 2020 compared to 1990 levels. If the EU had agreed Germany would even have striven for a 40 percent reduction in this period (Umwelt, BMU 1/2003, p. 33).

Staying in line with this tradition of providing incentive for other countries/institutions to push forward their policy by going ahead with an explicit forerunner policy, the Minister of Environment (as well as the Chancellor) just recently not only established new national targets but also committed to do more if other countries would follow suit. Although the reduction rate of GHG emissions (especially CO₂) slowed down significantly over the past few years (there even was a slight increase in emissions), in the wake of the recent EU and G8 summits the government declared once again to reduce Germany’s GHG emissions by 40 percent until 2020, in case other industrial countries would agree to a 30 percent reduction. And it was primarily due to the persistent political activities of the German government that the so-called 3x20 percent target of the EU came about: by 2020 GHG emissions of the EU shall be reduced by 20 percent, energy efficiency increased by 20 percent and the share of renewables in energy production raised by 20 percent. The energy efficiency target (as set in the so-called coalition treaty of the current government) is an extremely great challenge for Germany: it means a doubling of energy efficiency between 1990 and 2002, which comes

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6 The original voluntary commitment (of the Federation of German Industries – BDI) of March 1995 became subject of broad criticism and soon the BDI was forced to improve the commitment, set a stricter reduction target and introduce continuous monitoring by an independent institution.
down to a 3 percent increase of energy efficiency per year. At present the rate is about 1 percent per year. This target is absolutely unique (cf. WirtschaftsWoche no. 26 of June 25, 2007, p. 23).

Parallel to these politically salient commitments to (checkable) national targets, the German government played a stimulating progressive role in international climate policy negotiations since the mid-1980s (cf. Weidner 2007, Weidner 1999, Weidner/Jänicke 1998, Weidner 1995). Much attention gained, for example, the performances of German Chancellors and Ministers of Environment at international conferences (e.g. UN Earth Summits in Rio de Janeiro, 1992, and Johannesburg, 2002), various COPs/FCCC and G7 and G8 summits), where they spoke for an ambitious international environmental and climate policy. Their appearances were not only of a high symbolical value but also helped overcome political obstacles. The Kyoto Protocol could come to a successful conclusion only because of the committed preparatory work of Angela Merkel, then Minister of Environment, at the COP1 conference in Berlin, 1995, and because of her diplomatic activities during the COP session in Kyoto in 1997.

Right from the start of his term in 2005, the present Minister of Environment, Sigmar Gabriel (SPD) pushed for new impulses in global climate policy in view of the Kyoto period coming to an end in 2012. On a conference of the signatory states (UN Framework Convention of Climate Change, Kyoto Protocol) held in Montreal in 2005, Germany supported the goal to cut down GHG emissions world-wide by 50 percent until 2050, in industrial countries correspondingly by 60 to 80 percent. This gives good reason to speak of 20 years of positive path dependency of the German government in the area of climate and energy policy – in spite of changing party affiliation of governments and significant changes in socio-economic conditions.

There are, of course, also deficits and gaps in Germany’s climate policy. There even was a “hidden retreat” from one of its most outstanding commitments: When it became obvious that Germany will not be able to achieve the 25 percent CO₂ reduction by 2005, the then red-green government simply stopped mentioning this target. Instead, it referred to the less demanding commitment made in the context of the EU burden sharing system, namely a 21 percent reduction of GHG emissions by 2008-2012. However, this was the only significant incident of lowering in internationally announced commitment in climate policy.

Aside from deficits in German climate policy that become obvious when considering sustainability aspects (including non-intended side effects, long-term stability of policies, etc.), there are several deficits concerning policy instruments as well as some features of the politico-administrative procedures and the implementation process. The most important weaknesses are: the preferential treatment of some industrial branches and, especially, the utility sector due to its strong political influence (see, for instance, the National Allocation Plans 1 and 2 or the eco-tax); non-compliance with the specific co-generation commitment of the German industry within the voluntary commitment concerning GHG emission reduction; non-compliance of the German automobile industry with its (EU) voluntary commitment concerning reduction of exhaust gases; and the generous grace period the automobile industry was granted by EU regulation, primarily due to the strong intervention by the German government; a system of car taxes that only weakly reflects a car’s climate relevance; no nationally possible regulation of air traffic emissions; ecologically and economically

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7 With respect to the central targets, the IMA submits comprehensive annual monitoring (progress) reports to the federal government

8 The result was less GHG reduction than would have been economically and technically feasible.
Insensitive support of so-called bio fuels; the originally negative attitude (and correspondingly restrictive policy) to the introduction of the EU emissions trading system. In general there had been a stagnation in climate (and environmental) policy during the last years of the Kohl government. However, even in that period no really decisive back-lashes had taken place. And sometimes it is only due to a different perspective on climate policy instruments and strategies taken by others countries that Germany is wrongly criticized as being restrictive in international climate policy. German delegates in international climate negotiations have, for example, persistently rejected policy instruments and procedures that could be misused for “symbolic activities” or avoidance of actual emission reductions within a given country. Germany’s opposition concerned (in varying degrees), for instance, the allowance of “carbon sinks”, CDM/Joint Implementation, carbon sequestration, and also emissions trading during KP negotiations?

2.2 Achievements

Germany made remarkable progress in the reduction of greenhouse gases. It obviously belongs to the world’s leading countries in climate policy performance. This even holds true when disregarding any ‘wall-fall profits’ (i.e., CO₂ reductions in the course of the de-industrialization process in the five new states of the former GDR). Until recently—with the beginning of 2000—a trend of declining CO₂ emissions started to show in the transport sector, indicating that the eco-tax took effect. But in spite of these favorable developments the 25 percent reduction goal could not be met in 2005. However, it seems quite realistic to assume that the ‘European target’ for Germany (21 percent reduction of greenhouse gases by 2008/2012, compared to 1990 levels) will be within reach.

Since the early 1990s emissions have been lowered comparatively little (Wittke/Ziesing 2006: 155, Ziesing 2006b). Nevertheless, energy efficiency (all economic sectors) was raised strongly within the same period: In 2005, per unit GNP a third less CO₂ was emitted than in 1990 (Wittke/Ziesing 2006: 156).

Climate-friendly energy policy made Germany world market leader for some areas of renewable energy technology (such as wind, photovoltaics). Therefore, Germany contributes to encouraging energy policy developments in other countries along the lines of climate protection. An example for such a development is the so-called energy feed-in law for renewables, which had been adopted by about two thirds of EU member countries. And many other countries have based their own legislation on this law. International conferences on renewables – initiated and organized by Germany – have supported this development and further improved the chances for German technology in the market. Germany’s provision of low interest loans amounting to billions also helped increasing this trend (see SRU 2005: 7, www.ren21.net).

With a 16 percent cut in CO₂ emissions by 2005 (from 1990 levels) the Federal Republic ranks good in international comparison. Germany is among the few industrial countries that have lowered their CO₂ emissions relevantly through active climate policy, and the Kyoto target seems achievable. In the United States, however, emissions rose by more than 16 percent, in Japan by 14 percent. Between 1990 and 2003 CO₂ emissions caused by energy generation have increased world-wide by more than 19 percent. In developing and transition countries, emissions even rose by about 60 percent. Considering emissions per capita, however, they rank far below those of industrial countries.
All in all, Germany has been among the forerunners in national and international climate protection policy, and—in spite of the increasing brakeman’s attitude of the energy-intensive industries—the country has secured, if not strengthened, its leading position.

The following tables and figures provide a broad and also detailed overview on the development of GHG emissions in various countries, at EU level, and in Germany; the Kyoto burden-sharing targets for EU-15 countries; GHG per capita for EU-25 countries; renewable energy shares in EU-25 countries; as well as various climate-related data for Germany.

**Figure 1**

Reduction of climate gases: 
Kyoto target and actual reduction as of 2004

![Graph showing reduction of climate gases](image)

Source: Green Budget Germany (GBG) - Förderverein Ökologische Steuerreform e.V. (FÖS)

**Figure 2**

Kyoto burden-sharing targets for EU-15 countries

![Graph showing Kyoto burden-sharing targets](image)
Table 1: Greenhouse gas emissions in CO₂ equivalents (excl. LUFC) from 1990 to 2003 and Kyoto targets for 2008/2012

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</table>

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>1990</th>
<th>1995</th>
<th>2000</th>
<th>2005(^1)</th>
<th>Average Yearly Change in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of inhabitants (at year’s end)</td>
<td>millions</td>
<td>79.8</td>
<td>81.8</td>
<td>82.3</td>
<td>82.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Gross domestic product (GDP)</td>
<td>billion Euro</td>
<td>1 712</td>
<td>1 860</td>
<td>2 054</td>
<td>2 129</td>
<td>1.7</td>
</tr>
<tr>
<td>GDP per inhabitant</td>
<td>thousand Euro</td>
<td>21.5</td>
<td>22.7</td>
<td>25.0</td>
<td>25.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Primary energy consumption (PEC)</td>
<td>petajoules</td>
<td>15 345</td>
<td>14 328</td>
<td>14 835</td>
<td>14 364</td>
<td>–1.4</td>
</tr>
<tr>
<td>Fossil-based primary energy reserves</td>
<td>petajoules</td>
<td>13 439</td>
<td>12 396</td>
<td>12 533</td>
<td>11 992</td>
<td>–1.6</td>
</tr>
<tr>
<td>Proportion of emissions-free energy reserves in PEC</td>
<td>%</td>
<td>12.4</td>
<td>13.5</td>
<td>15.5</td>
<td>16.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Energy/process determined CO(_2) emissions</td>
<td>million tonnes CO(_2)</td>
<td>1 049.6</td>
<td>921.5</td>
<td>907.2</td>
<td>872.3</td>
<td>–2.6</td>
</tr>
<tr>
<td>PEC per inhabitant</td>
<td>gigajoules</td>
<td>192</td>
<td>175</td>
<td>180</td>
<td>174</td>
<td>–1.9</td>
</tr>
<tr>
<td>CO(_2) emissions per inhabitant</td>
<td>tonnes CO(_2)</td>
<td>13.2</td>
<td>11.3</td>
<td>11.0</td>
<td>10.6</td>
<td>–3.1</td>
</tr>
<tr>
<td>CO(_2) content of the primary energy consumption</td>
<td>tonnes CO(_2)/terajoule</td>
<td>68.4</td>
<td>64.3</td>
<td>61.1</td>
<td>60.7</td>
<td>–1.2</td>
</tr>
<tr>
<td>Macroeconomic energy intensity</td>
<td>terajoules/GDP in billion Euro</td>
<td>8 961</td>
<td>7 703</td>
<td>7 222</td>
<td>6 746</td>
<td>–3.0</td>
</tr>
<tr>
<td>Macroeconomic CO(_2) intensity</td>
<td>tonnes CO(_2)/GDP in million Euro</td>
<td>613</td>
<td>495</td>
<td>442</td>
<td>410</td>
<td>–4.2</td>
</tr>
</tbody>
</table>

1 Preliminary Values

Sources: Based on data by H.-J. Ziesing (DIW Berlin, 2006), AG Energiebilanzen, Umweltbundesamt, Deutscher Wetterdienst, Statistisches Bundesamt.
Although the self-imposed goal of a 25 percent CO₂ reduction by 2005 was not reached and emissions have stagnated since several years, German climate change policy must be considered successful for at least two reasons. From an – in the narrower sense – ecological perspective, the success lies in the fact that the GHG reduction was achieved by policy measures which largely are environmentally sound⁹, economically favourable and (partly due to information gaps) accepted by the population. From a broad global climate policy perspective, German climate policy can be classified as even extraordinarily successful. The manifold international initiatives, preparatory efforts and a conciliatory attitude towards developing and transition countries contributed decisively to the establishment of a climate regime with fixed objectives under international law. A hypothetical counterfactual test would confirm this: If Germany would have joined the (originally quite large) group of climate policy sceptics and procrastinators, international climate policy would most likely still be in a state of noncommittance. To put it bluntly: without Germany no (by international law binding) Kyoto Protocol! Though formally it came into force only through Russia’s ratification, Russia itself did not contribute anything (in the sense of progressive climate policy) except giving a decisive signature, which had little to do with climate policy commitment but much more with associated economic and political advantages, such as gains to be expected from emissions trading. At the G8 summit in June 2007, Russia accordingly belonged rather to the restraining group and – like the United States – did not wish to agree to concrete GHG reduction targets for 2050. Emphasizing Germany’s pivotal function for the international climate regime shall not diminish the major role of other countries, in particular Scandinavian countries, the Netherlands, the United Kingdom, etc. These countries, however, would have lacked the critical mass¹⁰, to counterbalance opposition and obstruction from other strong countries of the North or scepticism from developing countries of the South during the negotiation process.

2.3 Achievements in Renewable Energy Sources (RES)¹¹

German leadership in RES-E (Renewable Energy Source – Electricity) is the result of a complex process (see Reiche 2004). With few colonies in the nineteenth century, Germany until the late twentieth century was one of only two large industrial states without oil resources and no large oil corporation of its own (Karlsch/Stokes 2003), the other one being Japan. It came to rely with particular intensity on domestic coal, and later on nuclear energy. During the energy crises of the 1970s, coal and nuclear were nursed to impressive dimensions, politically as well as economically. But this policy also led to intense controversies and the rise of a strong anti-nuclear movement in the 1970s, a strong environmental movement in the 1980s, the spread of green ideas throughout society, and the first big Green party in Europe.¹² This counter-movement viewed renewable energy sources

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⁹ With respect to environmental compatibility some modifications are necessary: negative, unintended side-effects of climate-related policies have become evident. For example, the increasing demand for bio-fuel has led to an ecologically harmful destruction of forest areas in developing countries in order to expand cultivation of biomass energy crops.

¹⁰ See the findings from environmental political diffusion research, e.g. Jörgens 2004.

¹¹ This section is based largely on Lauber/Mez 2004.

¹² Renewable energy policy in Germany began after the first oil crisis. For about a decade and a half, this policy consisted almost exclusively in the promotion of research, training personnel, and the development of prototypes and laboratory production. Spending was very modest in 1974 (about € 10 million). It rose gradually until 1978 (about € 60m) and reached its peak with € 150m in 1982, declining thereafter until 1986 (€ 82m). The accident in the Ukrainian nuclear power plant Chernobyl in 1986 had a deep impact in Germany. Public opinion had been divided about evenly on the question of nuclear power between 1976 and 1985. This changed dramatically in 1986. Within two years, opposition to nuclear power increased to over 70 percent, while support barely exceeded 10 percent (Jahn 1992). While the social democrats committed themselves to phasing out nuclear power within
as an alternative to a nuclear plutonium economy, not merely as another additional source. Under pressure from this movement, governments reluctantly supported the development of renewable energy sources on a modest scale when compared to the funds spent on coal and nuclear energy, and not even for domestic use at first.

When the red-green government came into office in 1998, its parliamentary party groups – once more against the Economic Affairs ministry – soon took measures to improve the economics of RES-E. They also made photovoltaics attractive for the first time. For this purpose, the coalition drew in yet new actors into the RES policy network, composed of environmental associations, the renewable energy sector such as equipment producers, owners and operators of installations and their associations, but also “conventional” associations such as investment goods industry association VDMA or the metalworkers union, which had joined the coalition during the preceding years. In 2003/2004, this coalition, supplemented by new allies, repeated this feat against renewed opposition from nuclear and coal interests.

In absolute terms, German wind power installations represent today slightly more than a third of the total stock worldwide; for solar photovoltaics the figure is similarly impressive. For the sake of perspective it must be added that all this capacity, together with hydro, supplies about 12 percent of electricity generated in Germany.

Since the first oil price crisis renewable energy sources (RES) enjoy continuously increasing support by the German population. A survey (forsa 2005) shows that a large majority holds the promotion of RES the best approach to sustainable energy policy. Sixty-two percent are for an increased support of RES; only 4 percent plead for reduced or ceased support. With respect to preferred energy sources, the majority opts for solar energy; coal ranks last: solar energy 85 percent, wind energy 71 percent, water power 68 percent, geothermal heat 63 percent, biomass 56 percent, natural gas 53 percent, oil 27 percent, nuclear power 24 percent, coal 22 percent (multiple answers were allowed).\footnote{Worth mentioning is also that 63 percent favor nuclear power phase-out. However, significant differences are revealed when looking at the party affiliation of interviewees: Green Party 88 percent, PDS 77 percent, SPD 66 percent, FDP 53 percent, CDU/CSU 53 percent for nuclear phase-out (Emnid 2004). A representative survey of Allensbach Institute, published in February 2005, largely confirms these results. Moreover, this survey shows that 77 percent prefer those energy sources which are climate-friendly. Fifty percent want an energy policy which strengthens independence from foreign energy supply. However, 60 percent expect energy policy to keep energy prices low; 34 percent favor higher energy price for environmentally detrimental energy sources; but only a minority of 28 percent would be willing to pay higher energy prices for the sake of expanding renewable energy.}

Renewable energy facilities meet with much less opposition from local groups than fossil or nuclear power plants. However, in recent years criticism increased, especially of large wind power parks (in particular offshore parks) and large land-covering solar energy plants. While national environmental organizations clearly support all forms of renewable energy, their local-level branches sometimes ally with NGOs opposing renewable energy facilities. Altogether, despite some very aggressive conflicts between proponents and opponents of RES, there is strong acceptance and support of RES. A 2004 survey on wind power (forsa

\footnote{The question was: „Which kind of energy source should be the future basis of energy supply in Germany in the next 20 to 30 years?“}
2004) revealed that 66 percent favor an expansion of wind energy. Also 66 percent opt for continued promotion and subvention of wind power under the Renewable Energy Act. A 2005 survey on “Wind power plants and tourism” (SOKO-Institut 2005) showed that only 24 percent would consider wind power plants in German resort areas a nuisance, but 75 percent would be annoyed by nuclear and coal power plants, 64 percent by high chimneys; 58 percent by high-rising buildings, 55 percent by motorways and 41 percent by high-voltage transmission lines.14

3. Policy Measures
3.1 Overview15

Ecological Tax Reform
Imposing taxes on automotive and heating fuels and on electricity creates an incentive to develop energy-saving technologies and use energy in an efficient manner. Most of the revenue is used to reduce social security contributions.

Renewable Energy Sources Act
This act promotes the generation of power from renewable energy sources by providing off-take guarantees (off-take obligations for electricity network operators) and defined price levels differentiated by energy sources (formerly: Electricity Feed-in Act).

Market Introduction Program for Renewable Energies
This program promotes, in particular, the development of solar collectors and the efficient use of energy. It includes grants and loans.

The 100,000 Roofs Solar Power Program
This program provided financial support for investment in photovoltaic systems by making available reduced-interest loans from the federally owned KfW bank group. It ran out in 2003.

Promotion of Co-generation (combined heat and power generation)
The federal government recently started to develop a comprehensive program for the promotion of co-generation (after the “voluntary commitment” of the German industry did not meet the expectations).

Obligatory Energy Certificate (“Energiepass”) for Buildings
This certificate is intended to inform potential tenants and real estate owners about the energetic quality of a building (and serve as an incentive for owners to upgrade their property).

Joint Implementation Mechanism/Clean Development Mechanism
These so-called Kyoto instruments have, so far, played only a minor role. However, the federal government plans to promote the use of these mechanisms in the future.

Energy Saving Ordinance for New Buildings
It defines minimum standards for residential and non-residential buildings with regard to insulation.

14 For a discussion of conflicts over RES, see NABU 2004, Naturschutz kontra Erneuerbare Energien, Bonn: NABU. For general information on RES, see www.energieportal24.de
15 Cf. BMU 2006a, Mez/Watanabe 2004.
Financial Assistance Program for CO₂ Reduction in Existing Buildings
This program provides reduced-interest loans to promote investment in carbon dioxide reduction and energy saving in residential buildings constructed in 1978 or earlier. In 2007 the budget was raised to around 2 billion EUR/year compared to the former budget of 360 million EUR/year.

Declaration by German Industry on Global Warming Prevention
The federal government and German industry agreed on an update (2000) of the declaration of 1996 on global warming prevention. The amended declaration contains the target to reduce industrial CO₂ emissions by 28 percent from 1990 to 2005 and emissions of the six Kyoto gases by 35 percent by the year 2012. To lend concrete shape to this general declaration, a further agreement on CO₂ reduction and CHP promotion laid down that measures would be taken in the field of co-generation to reduce emissions of the six Kyoto gases by 45 million tonnes of CO₂ equivalents from 1998 to 2010/2012. (However, the German industry is still far from meeting this aim.)

Climate Protection Program 2000
This program was adopted by the government when in 1999 it had become clear that additional efforts were necessary to achieve the emission reduction target. It contains 64 concretized measures to be implemented in the household, transport, industry, utility, renewable energy (and some other) sectors. (Some of the measures and programs listed above are part of this comprehensive climate protection program).

Climate Protection Program 2005
This is an update of the 2000 program. It takes stock of the climate protection policies of the preceding five years and identifies the need for further action. It puts forward a list of measures (including public relations campaigns, financial support and renewable energy measures such as the Energy Saving Ordinance of 2006).

Integrated Energy and Climate Program
Very recently, on August 23, 2007, the Federal Cabinet passed a rather demanding 30-Measure Program to achieve at least an at least 35 to 36 percent reduction in GHG emissions by 2020 (base year 1990). This programme is also thought to act as a strong stimulus in “post-Kyoto” negotiations starting in December 2007 in Bali, Indonesia.

3.2 Distributional Effects
This is not the place to come up with a detailed description and analysis of the various instruments for the control of GHG emissions. In principle, however, a comprehensive analysis of policy measures with respect to their (re-)distributional effects is necessary to allow for empirically informed inferences about their socio-economic “conflict potential”, i.e. acceptance or opposition on the part of relevant actor groups and the public in general. Investigation of distributional effects is a matter of economists. Surprisingly enough, there are only few and highly selective studies on distributional issues in Germany.

This research gap comes all the more surprising because information on distributional effects is of decisive importance, both politically and ideologically: The fairness of policies and their acceptance significantly depend on which social/economic groups/sectors will benefit or be burdened. Even in cases where the macroeconomic effects of public policies are believed to be small or even generally positive, usually some sectors and groups will suffer (unless
compensatory policies are designed to minimize negative and regressive distributional effects).\textsuperscript{16}

Distributional effects of climate change policy can be categorized roughly along three dimensions:

- “Income structure: depending on the socio-cultural structure of the population and whether energy consumption is somehow related to income … [often affecting] low-income groups.
- Sectoral: CO\textsubscript{2}-intensive industrial sectors and products will suffer initially; over the longer-term, effects will ripple through the economy and all sectors will be affected. However, it is also believed that the economy will be able to adjust in the long-run, altering the sectorial structure.
- Regional impacts: there are three hypotheses regarding these impacts. First, remote areas may suffer due to the large transportation distances and potentially increased transportation costs. Second, to the extent there are regional income differences, regions with lower incomes will suffer according to the first point above. Third, regions with carbon-intensive industrial sectors will suffer according to the second point above” (Gallopin/Nilsson 2000: 49; see also Gallopin 2000, Sprenger 2004, Böhringer/Finus/Vogt 2002).

Due to the research gap mentioned above the following characterization of instruments can only be incomplete and tentative. Theoretically it can be assumed that, in correspondence with its dominant types of policy instruments, Germany’s climate policy is biased with respect to lower income groups (\textit{regressive} distributional effects).\textsuperscript{17} The widely studied eco-tax clearly has regressive effects. This explains, in part, why it is still strongly rejected by a clear majority of the German population, although government was forced to introduce some compensation measures in 2000 and the scheduled further increases of the tax were cancelled (cf. Weidner 2005: 32f.).

The emissions trading system also leads to socially unfair effects. Especially under the first National Allocation Plan (2005-2007) but also under its successor the CO\textsubscript{2}-intensive energy sector was treated quite “gently” concerning reduction requirements. This led to an increased burden-shifting to private households. The government’s practice of allocating all emission certificates (allowances) free of charge heightened the social bias of the system. The utility sector incorporated the market price of allowances (which it received free of charge) in its price calculations, which resulted in higher electricity tariffs: the utility sector benefited from windfall profits while consumers had to pay remarkably higher prices. Because of vehement criticism, not only by economic experts but also public media, part of the certificates (10 percent) will be auctioned in the second allocation period.\textsuperscript{18}

Information on the additional costs for consumers caused by the Renewable Energy Sources Act is varying and contradictory (cf. Weidner 2005). With additional cost estimates between 2

\textsuperscript{16} A \textit{regressive} distributional effect describes a greater negative impact on the personal income of lower income groups than on higher income groups (or, in other words, the lower income group benefits much less from a certain policy).

\textsuperscript{17} For a general theoretical discussion of the social redistributional effects of environmental policy instruments, see Zimmermann 1985; Schnaiberg/Watts/Zimmermann 1986.

\textsuperscript{18} The EU Directive on Emission Trade had already allowed an auctioning of 5 percent of the first period allowances. However, the federal government did not make use of this possibility. For a comprehensive and detailed analysis of the EU and German Emissions Trading Systems, which clearly demonstrates the strong influence of the energy industry lobby, see Ziesing 2007 (in print).
and 4 EUR per month per private electricity consumer, the burden seems to be not extraordinarily high. However, these estimates are more or less preliminary and corresponding studies, as a rule, do not discuss related equity concerns. Finally, the total extra costs of all climate policies and their social-distributional effects have not been calculated so far, not to speak of any further burdens created by the recently proclaimed demanding targets of a climate policy for the next decades. Although the other policy instruments listed above may have lower cost effects on private households, they surely have biased equity effects that could be criticized from a social-distributional perspective. Renewable energies promotion includes grants and attractive loans favoring, inter alia, house owners (and not tenants); a similar bias is very likely inherent to the 100,000 Roofs Solar Power Program or the various other financial assistance programs for CO₂ reduction in existing and new buildings. Experts of the ministry of environment estimate that the new Integrated Energy and Climate Program of August 2007 will burden private households with an extra 8.3 billion EUR per year (but they did not give any information on the social-distributional effects) (cf. Süddeutsche Zeitung, 25 August 2007, p. 2).

The lack of comprehensive studies on the costs and distributional effects of German climate policies very much limits clear-cut and empirically based conclusions on the issue of justice (equity) within the country. However, the existing information make it highly plausible to infer that Germany’s climate policy is not only characterized by (in sum) regressive distributional effects but also by all relevant actor groups not making an issue of this. While the first could be explained, to a large extent, by successful industry lobbying, the latter widely remains a puzzle (on which I will speculate in the following chapter).

4. Public Attitudes towards Climate Change Policy

In the previous chapters it was demonstrated that

1. Germany has been on the track of a progressive climate policy for about two decades; just recently it announced to be prepared to set more demanding targets if other countries would follow – not in the least to demonstrate its commitment to global fairness;

2. on balance, German climate policy is related to regressive distributional effects, but the issue of lacking national fairness did not make it on the political agenda.

How are issues of global fairness/equity in climate change policy discussed and gauged by the public? How much weight is attributed to the occasionally tense relationship between global and national fairness? In this chapter, I will address these questions making use of public opinion surveys on environmental and climate change policy.

Surveys on public attitudes towards environmental and climate change policy completely fail to address the tension between national and global questions of fairness/equity directly. People’s willingness to pay for fair global climate policies is only rarely surveyed and then only through indirect questions. Thus the only way to assess how sound an approval of the social and economic costs of fair climate policies is likely to be, is to filter out information from closely related surveys and questions.

A representative public opinion survey, which the ministry for environment conducted in 2004, shows that the German public has a high level of awareness with regard to climate
The survey also testifies to a high level of agreement with policies that aim to reduce climate change effects. When asked to sort different objectives of environmental policy into a hierarchy of relevance, the reduction of greenhouse gases came third. But for all that it is noteworthy that improving environmental protection in developing countries only scraped tenth and penultimate rank, and this even though the majority of people surveyed (84 percent) described the general quality of the global environment as “mostly bad” (66 percent) or “very bad” (18 percent).

This perception of the climate change problem and the global environment as being serious is mirrored in other parts of the survey. For example, 53 percent saw no significant progress in the field of climate protection, while 28 percent thought that the situation had worsened; 59 percent even believed that an environmental disaster was imminent should there be no change in behavior. Asked about the risk to their own circumstances through climate change effects, 53 percent found it extremely or very high – only potential harm coming from nuclear power plants and radioactive waste received higher levels of concern (59 percent).

A majority of people (63 percent) replied that the federal government should do more about environmental protection in general and climate change in particular. 85 percent believe that the climate will get warmer and that this will lead to a readjustment of climatic zones and that the sea-levels will rise. Only 15 percent were doubtful as to these scenarios. 56 percent wanted Germany to be a frontrunner in climate politics, while 32 percent would favour a common European approach. Germany’s efforts at international climate conferences were satisfying to 35 percent, unsatisfactory to only 14, while a relatively large group of 36 percent took no clear stance on this question.

Neither the fact that problem awareness is so wide-spread nor the wish for an increased effort in climate politics turns into support for policies that have a palpable monetary effect on individuals’ economy. In spite of increasing awareness in recent years, acceptance levels for the German Eco-Tax, which was notorious from the beginning, have declined. So in 2004 a majority of people (58 percent) disapproved of it, while only 26 percent supported the tax. One of the causes for this antipathy seems to be, that the eco-tax is often perceived as being socially unfair - a decisive majority of almost three quarters of people held that opinion. This suggests that regressive policies, which affect the lower income sections of society to a disproportionately large degree, are rejected widely.

Higher taxes on energy seem to suffer a similar fate. Even though they are meant to decrease energy consumption and therefore greenhouse gases, most people (52 percent) were less than enthusiastic, if not downright disapproving. People simply do not want to pay more for climate protection, or rather, they are only willing to pay, if they have the opportunity to gain financially in the long run by doing so. This finding is supported by surveys on the

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19 Another representative survey titled „Umweltbewusstsein 2006“ (Environmental Awareness 2006) shows similar results: A decisive majority of people polled (67 percent, which is more than in 2004) wants Germany to be a frontrunner in global climate politics; the spread of renewable energies is widely supported, as are supportive measures to increase energy efficiency and opting out of the use of nuclear energy (even though only 27 percent believe that a no-nuclear energy-mix is a policy likely to be followed by all other countries on the planet). Two thirds of the people questioned thought that tax increases for the benefit of the environment were socially unfair. The basic mechanism of the German eco-tax, to increase energy prices and decrease the cost of labor with the revenues was contested by a large majority of people: 77 percent thought that this was “mostly not true” or “not true at all”. An accumulated 51 percent are “mostly not” or “not at all” willing to pay higher taxes to increase the protection of the environment, even if guaranteed that the environment would benefit directly (BMU 2006b). The high level of awareness is also documented in various Europe-wide surveys by Eurobarometer, see Weidner 2005, p. 58 ff.
willingness to pay for environmentally sound products: 82 percent would buy a low-energy fridge, despite initially higher costs, whereas only nine percent intended to switch to an electricity provider of energy from more expensive renewable sources only. Only three percent of all German households have done that, so far. Let me remind you, that this is the situation in a country, where large majorities of the population support the development of a renewable energy infrastructure (e.g. 70 percent in the case of wind energy).

Likewise 84 percent believe that the terms of trade between rich and poor countries should be fair. But as soon as survey questions touch on material matters concerning the respondents directly, the willingness to pay decreases dramatically – also with regard to measures limiting climate change. In fact, the willingness to pay for policies seems to decrease the more, the fewer individuals expect to gain from them personally. Since the respondents were so very unanimous on this point, and across different questions, too, it seems strikingly odd, that hard, specific questions, touching on the individual’s willingness to pay are almost always discarded in favour of soft, normative questions in government surveys.

This omission can not hide, though, that it is doubtful whether ambitious climate policies, like e.g. post-Kyoto targets, would be supported by a majority of any population, if their regressive distributional effects were discussed more openly. First, because the few empirical studies on distributional effects of German climate and energy policies that do exist, as well as theory-based studies (see Serret/Johnstone 2006), leave very little doubt that climate change policies result in regressive distributional effects. And secondly, because the findings from Germany are repeated in results from other opinion surveys covering several countries (Eurobarometer, Allensbach and ISSP, see Weidner 2005).

As to what the costs of climate change policies will actually be in the end, the picture is patchwork-like with some parts missing. The good news is, that the overall costs per household per year might be rather small: between 8 EUR (as calculated by the UBA) and 24 EUR (as calculated by the RWI) (UBA 2002a: 5 and Wirtschaftswoche no. 17, 8.4.2004, p. 26). The bad news is that there are no studies at all as to the costs of the emissions trading system. What we do know is that the energy-producing sector and energy-intensive industries have been favored at the cost of households, transport and trade (see SRU 2005: 12). We also know that, of all these sectors, the households will in all probability have to carry the highest costs in adapting to the new targets of energy and climate policies (particularly during the second period of emissions trading) (FAZ, 04.07.2004, p. 9). Real estate owners, though, might benefit from the new redevelopment program, which aims to increase energy saving measures in old buildings – the government already passed an increase in the funding of 1.6 billion EUR (for more general information on climate change policies and distributive effects see Serret/Johnstone 2006, various chapters of Helm 2005; for conceptual concerns see Kraemer 1999).

5. Germany’s Capacity for (“National”) Environmental and Climate Change Policy

The ability of the German society and the politico-administrative system “to identify and solve environmental problems” (OECD 1994: 8) grew rapidly with the establishment of a systematic legal-institutionalized environmental policy in the late 1960s. The following provides a necessarily short overview of the German process of capacity building for
environmental policy and management. It is based on the analytical approach developed by Martin Jänicke (1997) and a related case study (Jänicke/Weidner 1997).

Germany’s geographical and political situation as well as its economic structure bring with them specific environmental problems and, as a rule, require greater efforts in environmental protection than is the case in many other countries. Population density and the degree of industrialisation are among the highest in Europe. A large proportion Germany’s industrial sector is environmentally problematic, its agriculture is highly industrialised, its transport network one of the densest and traffic volume high and increasing. Germany has a long coastline and, as it shares borders with nine other countries, most of its main rivers have their sources in neighbouring countries.

Government regulation to protect humans and their environment against hazardous industrial activities has a long tradition in Germany (Wey 1982). The Water Rights Act and the Factories Act date back to the 19th century. In the 1960s air pollution laws existed on the state level, but it was not until 1969 that environmental policy developed into a national policy area based on a comprehensive concept of environmental protection. In 1969, a centre-left coalition government formed by the SPD and FDP came into power. Although neither election campaign nor party manifestos had placed much emphasis on the environment, the official Government Declaration to the Federal Parliament in October 1969 made the solving of environmental problems one of the primary tasks of government. There neither was strong public demand for this nor noticeable pressure being exerted by organised interest groups to which government would have had to respond. Therefore, the initiative which formed this new political area must have come not from forces outside parliament, but rather from within the political system itself. This is what Reich calls an “inside initiative model” (Reich 1984). It was not until the 1970s that the environmental movement outside parliament became a driving force in environmental policy.

The government’s first initiatives, beginning in September 1970 with a quick-start programme (Sofortprogramm) for environmental protection and continued in the 1971 environmental programme for the coming years, were orientated initially around international developments, especially around early environmental legislation in the USA (the 1969 National Environmental Protection Act). The initiatives of the Council of Europe concerning water and air pollution (The Water Charta/The 1968 Clean Air Charta, European Nature Protection Year 1970) and, above all, the UN Conference on the Environment in Stockholm in 1972 were of considerable importance.

In the course of deliberations on the environmental program and other program statements, three principles were deduced that were to act as central guidelines for environmental policy: the principles of precaution (Vorsorgeprinzip), cooperation (Kooperationsprinzip) and the Polluter Pays Principle (Verursacherprinzip). Precaution only attained its commanding position within the three basic principles in 1976, when the federal environmental program was updated. In general, when compared internationally, the federal environment programme was progressive and demanding for its time.

In June 1990, the program for reducing CO₂ emissions was passed. This program, along with the goal of reducing CO₂ emissions by 25 percent by the year 2005, has led to detailed measures and voluntary agreements with industry. In 1995 the chemical industry, for example, published advertisements about a reduction in CO₂ emissions by about 30 percent.

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20 The case study contains numerous references to relevant literature not referred to here.
by the year 2000, based on 1990 emission levels. The organisations of the electricity generating industry declared their intention of reducing CO$_2$ emissions by 25 percent by 2015. In 1994, environmental protection was written into the constitution as a goal of the state (Staatsziel). There is, however, no detailed, all-embracing basic environmental law (Umweltgesetzbuch). Because of the large number of legal regulations at federal and Länder level, of which many are highly detailed, Germany has one of the most complex legal systems for environmental protection in the world.\footnote{For an overview on the development of climate policy please see chapters 3 and 4 above.}

For a long time, German environmental policy had been based largely on an inflexible approach and conventional attitudes toward regulation, rooted in old-fashioned policing law (danger avoidance) and “statist ideology.” Increasing problems with this policy style when trying to meet environmental objectives have led to a change in direction, towards consensus building, a broader form of cooperation that includes scientists and members of environmental organisations critical of current environmental policy.

The German policy style could now be characterized by intensive formal and informal cooperation and negotiation between regulators and regulated. The style of policy implementation also underwent a process of change towards a broader, more intensive involvement by NGOs at macro- and meso-level consultations on environmental policy and decision-making. In the German environmental policy of today we see a combination of hierarchical and cooperative elements, characterised as “negotiation under the shadow of hierarchy” (Scharpf 1991). However, the instruments of climate and renewable energy policy still are strongly “hierarchical”, and even the emissions trading system (introduced in 2004) developed into a “bureaucratic monster” due to the massive lobbying activities by industrial interest groups (cf. Ziesing 2007).

\subsection*{5.1 Capacity of Public Institutions}

Germany has a broad network of well-established environmental policy institutions. At federal and state (Länder) level there are specific authorities responsible for the formulation and implementation of environmental policy. Local authorities usually have environmental policy departments.

The main actor at federal level is the Ministry for the Environment, Nature Conservation and Nuclear Safety, which was founded relatively late on, after the Chernobyl accident in 1986. Meanwhile, most ministries, even the Ministry of Foreign Affairs and the Ministry of Defence, have a special environmental protection department. The establishment of an independent Ministry of Environment – at first rejected even by several environmental proponents – proved, in the course of time, to be extremely favourable for environmental protection. The ministry developed a strong “esprit de corps” and successfully strengthened its inner-administrative influence. This was mainly due to intelligent measures of reorganization, highly profiled ministers of environment and the establishment of global networks – just to name some of the most important factors.\footnote{For a comprehensive analysis, see Jänicke/Kraemer/Weidner 2006.}

The main function of the Council of Environmental Advisers is to advise government when this is specifically requested, although it sometimes deals with issues on its own initiative. In 1986, an environmental committee was established within the German federal parliament. There are other (sometimes higher-level and more influential) scientific advisory institutions
(Parliamentary Commissions of Enquiry, the German Advisory Council on Global Change) as well, who can also exert a strong influence on public and scientific debate.

5.2 Environmental Organizations

The level of organisation among environmental interest groups has increased steadily. Environmental associations and nature protection societies currently have more than four million members. They have been able to create a broad, relatively close-knit communication network at local, national and international levels.

The Green Party (Die Grünen, and since unification Bündnis 90/Die Grünen) is now firmly established within the party system. In 1979 they were represented for the first time in a state parliament. In the federal elections of 1983, the Greens achieved 5.6 percent of the vote and entered the Bundestag (the national parliament). In the October 1994 elections, the Greens became the third largest party (with 7.3 percent of the popular vote) in the Bundestag. Now there are also some (albeit primarily gestural or tactical) discussions about a possible coalition with the Christian Democratic Union – an indicator of the Green Party’s degree of integration within the party system.

5.3 Economic Proponents

The main winner in this new political field is eco-industry. Germany spends one of the highest proportions of GNP for environmental matters within the OECD. According to the research institute DIW, about 550,000 jobs, nearly 2 percent of total employment, depend directly or indirectly on this area of industry. Its rate of growth is above average, and it takes a leading position in the world market. This is especially true for the renewable energy sector.

Since about 1988, “green” enterprises and environmentally committed business associations – B.A.U.M (with about 500 members), Future (about 200 members) and Unternehmensgrün – have become more and more important. This new “green business sector” has acted as the motor for ecological modernization by way of using “integrated” cleaner technologies and generating an environment-friendly demand.

5.4 The Changing Constellation of Actors

After a rather long period of close cooperation between politicians/bureaucrats, representatives of industry and established science, combined with a strict exclusion of environmental interests, the conflict arena changed step by step in favor of environmental interest groups. This was supported by changes in governmental environmental policy.

It was, for example, a centre-right coalition government led by Helmut Kohl (1983-1998) that became a driving force in air pollution control and climate policy, using a combination of command-and-control instruments and subsidies. The main improvement was the introduction of clean-up technology for power stations and cars. The entry of the Greens into the Bundestag, thereby changing the agenda of the German party system, was significant. This also improved the informational infrastructure of the environmental movements, which now became more centralised and professional. In addition, Waldsterben and heavy smog periods in some parts of the country led to a change in the media’s attitude. Environmental issues became an increasingly acceptable topic for publishers of the mass media.
The crucial stage of ecological modernisation followed the Chernobyl accident and some major pollution incidents in the Rhine. It is also associated with the then minister of the environment, Klaus Töpfer. Now, a trilateral cooperation between the environmental administration, industry and – increasingly – the environmental organisations came into operation.

The significant new actors were pioneer “green” enterprises and their organizations, influencing the production chain from retailer to supplier in the basic industries (e.g. the producers of chlorine). The motor of change was now not so much government regulation, but a broad coalition of modernisers stimulating the self-interest of enterprises in respect of costs (energy, materials, waste, transport etc.), and new “green markets”. The environmental awareness of consumers and the threat of government intervention, combined with negotiation and consultation, were important background facilitators in this process. The entrance of the Green Party into coalition governments at state level was also an influential factor, tightening for instance restrictions on the nuclear power industry. Since the early 1990s there has been a de facto moratorium on new installations before the nuclear phase-out act was passed by the red-green government in 2002.

5.5 Summary

Capacity development in environmental policy is defined as involving: the number, strength, competence and constellation of governmental and non-governmental proponents of environmental interests; their institutional opportunity structure, the availability of an economic and technological basis for pollution prevention and abatement, the existence as well as the (cognitive) capability to develop strategies on the basis of these means and preconditions, the availability of information, and a certain level of public awareness (see Jänicke 1997).

As described above, the number, influence and competence of governmental or societal actors has grown steadily in Germany. Today all relevant institutions have special departments for environmental protection, from the Ministry of Defence to the large industrial organisations. From a cross-national perspective there is a very strong technological and (green) entrepreneurial and also “intellectual” capacity to meet environmental challenges.

The institutional structure of the political system and its proportional voting system (restricted only by a 5 percent hurdle) worked to the benefit of representatives of environmental interests, giving the Green Party a fair chance early on. The federal structure may also have exerted some positive influence, because some states could assume the role of frontrunners. Some innovative influence could also be observed in the relatively strong position of local communities and their utilities (Stadtwerke). Green citizens’ action groups have occupied a relatively strong position at local level.

Informational capacity, i.e. the capacity to produce, distribute and utilise environmental knowledge has grown fast in the 1980s and is today remarkably large. This is true for the research infrastructure of the environmental organisations. The first independent research institute dedicated to environmental research, the ÖKO-Institut Freiburg, was founded in 1977.

In addition, the base of environmental organisations in the mass media is strong and has grown fast up to now. The “green” national daily Die Tageszeitung (taz) was founded in 1979. Environmental magazines, which hardly existed in the 1970s, had by as early as 1989 a
total circulation of about 4 million. (This number does not include the many specialist magazines for environmental experts.). By the late 1980s even the conservative press and media outlets with close links to economic interests, long-time opponents of environmentalist thinking, had changed their attitude. The mass media generally display a positive attitude towards environmental issues and demands. Newspapers and television have become more and more actively involved in pollution issues and in several cases they have exerted strong influence on the activities of industry and government. In recent years the climate change issue is extensively reported on in the public media.

It is the capacities of ecological modernization within the economic system and the role of the green business sector, with their effects on the “dirty” product chain that have become more important. However, the concept of ecological modernization is fundamentally different from the idea (or vision) of sustainable development (cf. Weidner 2005, Langhelle 2000, Christoff 1996).

While ecological modernization is, at its core, a market-oriented policy concept focused on environmental issues, sustainable development is a global societal reform concept, in which ecological aspects play an important but not the dominant role. Sustainable development could be defined briefly as a framework concept to realize global public welfare, embracing economic, social and ecological well-being. This could be seen as shorthand for global public interest. Of course, the protagonists of ecological modernization would claim that this concept will also contribute to global public welfare if it diffuses globally. However, the decisive point here is that this effect is envisaged as a related favourable side-effect but not as the central goal of ecological modernization.

Similarly, there are basic tensions between the goals of global justice and national climate change policy and, likewise, between related norms of global and national justice (fairness/equity between countries and within a country). From these tensions result other (and presumably more difficult) demands on the capacities of a country to deal with global climate change policy than with (national) environmental policy and management as described above. We can assume that the acceptance of a (new) collective norm that calls for acknowledging the interests of (often distant) “others” and accepting far-reaching (re-)distributional effects would necessitate quite different cultural-social values, perceptions, norms, attitudes, etc. than would be necessary for mainly nation-focused policies. This leads to the question of what kind of moral capacity for a fair global climate change policy does exist in Germany, and in which intensity?


6.1 The Concepts of Ecological Modernization (EM), Sustainable Development (SD), Public Interest and their Relations to Equity

In the rhetoric of public interest (Germany), the sustainability discourse has so far left hardly any trace. In terms of origin and age public interest and SD are like old nobility and parvenu. While public interest has a tradition going back at least to antiquity, and an imposing number of the greatest philosophers of all time (like Plato, Aristotle, Seneca) have contributed to shaping the concept, sustainability has its historical roots in the timber industry of the early 18th century. But the concept was to gain popularity only in 1987 with the final report of the

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23 The concept sustainability (Nachhaltigkeit) was coined in 1713 by the Electoral Saxony mining official kursächsischer Oberberghauptmann Hans Carl von Carlowitz.
international expert commission chaired by the then Norwegian Prime Minister, Gro Harlem Brundtland. Nevertheless, the two concepts relate in many dimensions in a more than loose and accidental manner. They share the meta-reference norms equity, public welfare, and focus especially on public goods; this unites them in their skeptical attitude towards fundamental liberal notion that the pursuit of self-interest benefits the whole.

Both approaches seek to place the utilitarian *homo oeconomicus* in a normative shell that not only safeguards freedom but also secures social integration. The two concepts also exhibit differences, sometimes considerable. They are due primarily to different space and time perspectives, both of which are far more limited in the case of the public interest concept. The *national* public interest ranks higher than the *global common good*, the interests of current generations come before those of future generations. This limits willingness to recognize universal equity and solidarity as binding yardsticks for personal action, or to restrict oneself today for the benefit of a distant posterity and accept the risk of economic structural change. In times of rampant globalization with its turbulent consequences for national economies, social security systems, and individual lifestyles, this willingness tends to diminish despite a growing realization that complex global effect chains increasingly impact national welfare (cf. Beckert et al. 2004). The public interest concept appears normatively under-complex and deficient in the face of global challenges, while the sustainability concept seems normatively insensitive to domestic welfare interests of industrial countries. Especially an adequate acceptance of the sustainability idea remains a major challenge for the covert, internal, functional logic of universally garnished particularism associated with the public interest concept (Herring 1972: 174).

For a long time to come, the emerging global governance institutions and regimes are unlikely to be an adequate substitute in generating and legitimating majority decisions on key policy issues with a strongly redistributive impact – for reasons similar or even more complex to those advanced in the discussion on the democratic legitimation of European policy in the framework of the European Union (cf. Kielmansegg 1996: 55ff.; Scharpf 1999, 16ff., 167ff.). As we have seen, not only positive relations but also strong tensions exist between the sustainability and public interest concepts. They result from different referential bases, which in simplified form can be described as national versus global, present versus future: the public interest concept emphasizes the Here and Now, the sustainability concept the There and Later. This is a particular problem in designing policy strategy.

In the conventional understanding of the public interest, the more faithfully and committedly policies are geared to the principle of sustainability, the more seriously they are seen to threaten the (national) public interest. This is evident in the so-called global environmental challenges like climate change and how governments react to them. Especially in the industrial countries, subordinating public interest policy to a radical sustainability idea could, at least in the short and medium term, bring growing internal conflict. This would be caused by, among other things, a reduction in the scope for prosperity-oriented public interest policy.

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24 Despite the economic and societal consequences of an equality-based equity principle, with their almost paralyzing effect on political sustainability initiatives, there is no convincing moral meta-reason why a distribution rule deviating from the per-capita principle (and thus sanctioning inequality) should apply with regard to essential global common goods (like the atmosphere). Political realism and not moral dignity is behind arguments in favor of unequal distribution. Nor is it a matter of solitary sacrifices on the part of the advanced industrial countries but of the consequences of their ecological imperialism. On the various arguments that have been advanced in the discussion about political strategies for action in favour of an unequal distribution of global resources among the countries of this world (like safeguarding existing development paths, different basic climatic/geographical conditions, the danger of bureaucratised quota systems, etc.) cf. Knaus/Renn (1998: 68ff.); Helm/Simonis (2001: 215-217). For a general discussion see Shue 1993.
in conjunction with the prospect of a gigantic redistribution program in favor of a geographically, temporally, or “emotionally” distant environment, “co-world,” and posterity. One could assume that prospective losses in conventional welfare will meet with opposition, despite the fact that in quite many of the wealthier countries the level of prosperity is based in not inconsiderable measure on the global externalization of the ecological and social follow-up costs of their way of pursuing economic affairs.

The present American administration, for example, is among the strongest opponents of a coordinated global climate policy. It consistently rejects international agreements as being contrary to the American “public interest” (cf. Brown 2002). In Germany, once a pioneer in environmental matters, the so-called eco-tax has, since its internationally belated introduction in 1999, been a source of constant annoyance for a not inconsiderable number of people – blown up out of all proportion by opposition parties, industrial and motoring associations – despite far-reaching exemptions and compensation for particular industries. Critics have decried not only its negative economic effects on global competition but also its social inequity (higher petrol prices for frequent car drivers and motorists in rural areas, disadvantages for retired persons, students, etc.). Leaving aside the ecological goals (reducing private transport levels, promoting environmentally more efficient mobility, etc.), the principal socio-economic goal – actually a public-interest objective – of creating jobs by using revenues to lower charges on labor has been pushed into the background in the public discussion. The problems that occur in a wealthy country like Germany, with a comparatively high level of environmental awareness, when a modest contribution to sustainability is demanded – and one that is not even lost to the country but reallocated for the benefit of the nation as a whole – gives some idea of how high the obstacles would be to introducing the more demanding climate policy measures that are needed from an ecological point of view, not to mention transfer payments to countries that use a low proportion of common ecological goods. Moreover, an international comparison of environmental policies shows that even a consistent “ecological modernization policy” in many industrial countries would at present overburden the environmental policy capacities at hand, since the necessary cognitive-emotional, technological-economic, and socio-political/institutional capacities obviously are not yet available (Weidner/Jänicke 2002).

These few examples alone demonstrate that the public interest idea can be mobilized without contradiction in opposition to sustainability goals recognized as necessary and legitimate. The more restricted temporal and spatial perspective of the public interest idea benefits from the fact that charity begins at home. The (at least plausible) positive long-term effects of initially costly sustainability measures on one's own well-being are apparently difficult to comprehend cognitively and emotionally, and presumably new groups of winners and losers would soon make their appearance. In these circumstances it is little wonder that, in the public debate on the demands of sustainable development, the more evident (national) public interest concerns are often played off against a supposedly cosmopolitan utopia of “pursuing world happiness into the blue beyond.”

The concept of Ecological Modernization (EM) takes up basic mechanisms of modern capitalist societies – an interest in expansion, efficiency, innovation, and profits – which it seeks to instrumentalize to protect the environment and natural resources. Intragenerational and intergenerational equity play a peripheral role; such issues are regarded more in realpolitik terms as limiting factors that have to be taken into account by astute environmental policy in the globalization age rather than as primary normative goals. Global environmental problems play an important role, but they are not *per se* at the top of the agenda. Priority is usually given to those problems that lead to the most detrimental effects at the national level.
or if their solution corresponds in other respects with the national interest (see Langhelle 2000: 307). The equity issue constitutes the most crucial difference between EM and SD.

The comparison of the central characteristics of the SD and EM concepts shows clearly that the most crucial difference of both concepts is related to the issue of equity/social justice. From this follows, that the need for re-distributive policies on a global scale is inherent to the SD concept. Although equity concerns are also central to the concept of public interest, they are confined to a specific community, usually within the borders of a region or country. Because the public interest concept lacks a global perspective and has a rather narrow understanding of “futurity”, it has much more in common with the EM concept than with SD.

6.2 Analysis of German Environmental Policy Metaconcepts

Ecological Modernization (EM)
The concept of ecological modernization, as used by the German government, is based on the pragmatic definition of EM, which primarily conceptualizes it as an economic-technical transformation towards an ecologically sound society, driven by technological change and innovation in all sectors of society, and supported by a balanced restructuring or downscaling of environmentally problematic sectors (like agriculture and open-cast coal mining). The concept also aims at an improvement of ecological and economic efficiency. The idea that EM should, in balance, be a win-win-strategy for all social groups – saving the environment, leading to advantages in global competition and creating new jobs – is the basis of the government’s programs (see BMU 2002a).

EM is a key element of the red-green government’s program and one of the cornerstones of the coalition contract of 1998. Both parties – the Social Democrats and the Greens – have been strong proponents of EM for many years. The EM concept was introduced in the early 1980s by the political scientist (and then member of the Berlin parliament) Martin Jänicke as an approach to overcome the obvious limits and weaknesses of the dominating (and at that time rather progressive) technocratic approach of “advanced end-of-pipe” treatment (Jänicke 1984, 2002; Mez/Weidner 1997).

Concerns of equity played – and still play – only a minor role in the government’s concept of ecological modernization and its implementation. Neither notions of intra muros-fairness (distributional effects in Germany) nor extra muros-fairness (global effects) certainly have been the most important driving force in governmental climate policies. The underlying assumption is that the expected overall positive effects of this ecologically informed modernization strategy will lead, in the medium and long term, to a shift towards, and an increase in, sustainable (ecologically sound) welfare for all members of society, thereby reducing environmental and economic inequities. Only in the rare cases where equity aspects have led to intensive public debate – as was the case with the eco-tax – did the government introduce some compensation measures to alleviate the most detrimental effects for special groups. Yet, this was not done in a way that systematically focused on equity concerns but mainly to calm down heavy criticism.

The peripheral role of equity concerns in the government’s EM policy is also reflected in the kind of scientific analyses it has launched to examine the effects of its programs and policies. Legal, economic, and ecological effects are usually studied in deep detail, whereas equity aspects are mostly dealt with under the issue of employment effects. This is especially the case with international and global activities of the German government.
Sustainable Development Policy (SD)

Germany doubtlessly is a latecomer concerning the institutionalization of a Sustainable Development policy based on Agenda 21 and the Rio Declaration of 1992, informed by the so-called Brundtland Report of 1987 (Jänicke/Jörgens 2000; OECD 2002). When the federal government finally adopted the National Sustainability Strategy in 2002, more than two thirds of the OECD countries already had a National Environmental Plan (Weidner/Jänicke 2002). The main explanation for this paradoxical development may be the strong “path dependency” of decisive actor groups and the institutional setting of Germany’s rather successful environmental policy based on the precautionary principle. These actor groups embraced large parts of the public environmental administration, the federal Umweltbundesamt (environmental protection agency), the Council of Environmental Experts (SRU), and many NGOs, especially from the business sector (cf. Tremmel 2003). They adhered to the EM concept that, especially from a practice-oriented perspective, is much more coherent, institutionally well-embedded and allows for the development of clear-cut environmental strategies by the government (cf. SRU 2002). In addition, many representatives of the scientific community (especially economists) have always felt a deep and persistent aversion towards the vagueness of the SD concept – a feature that furthered the almost inflationary increase of conceptual variations and the rather arbitrary inclusion of almost all societal and social issues (from, so to say, crime to kindergartens).

Especially within the environmental administration and influential circles of the scientific community the report’s core ideas and approaches were disliked strongly. In simple words: the SD concept was perceived as being overly complex, too vague, full of ambiguities and contradictions, and a potential threat to the achievements of environmental policy made on the grounds of its basis principles – especially the precautionary principle – and its legal-institutional setting.

Although the red-green coalition government (1998-2005) made sustainability the leitmotif of the whole governmental policy (see Koalitionsvereinbarung 1998), the national SD strategy of 2002 (“Perspectives for Germany”) mainly concerns environment-related issues, namely climate and energy; mobility, environment; health and food. The strong focus of Germany’s SD strategy on energy and climate change policy is highly justified by the SD concept itself, as developed by the Brundtland Commission: In the Brundtland Report “Our Common Future,” the ultimate limits to global development are seen as being determined by “the availability of energy, and the biosphere’s capacity to absorb the by-products of energy use” (Langhelle 2000: 311), and climate change is deemed to be the potentially most serious of all environmental issues facing the world today (WCED 1987; see also Yearley 1996: 80 ff., 130 ff.).

Local Agenda 21 Activities

The following statements are based on the analysis of various surveys (e.g. 3 surveys by Difu 1996, 1997, 1998; ICLEI 2002; Servicestelle/InWent 2003, and surveys conducted by state agencies) and various studies (e.g. UBA 2002a, by Difu/ICLEI; UBA 2002b, by IFEU/BKR, see also www.iclei.org/la21survey; Rösler/Trapp 2000):

- The main focus of LA 21 activities is on environmental problems within the local area (see also Servicestelle Kommunen in der Einen Welt 2002: 32);
- Among environmental protection activities the issues of climate protection as well as energy and transport (including reduction of energy and resource consumption) dominate;
Activities with a systematic focus on developing countries play, with the exception of North Rhine-Westphalia, only a marginal role;25 Most climate-policy related activities are guided by local public interests rather than a true global perspective; global justice considerations are almost entirely excluded (see also UBA 2002a: 50f.);

The idea of SD is frequently interpreted as promotion of “local public interest” (UBA 2002a: 179); and there is a strong tendency to put improvement of the living conditions in one’s own (rich) country at the center of local SD activities (UBA 2002a: 4);

Even in so-called One-World Activities (established by 78 percent of the local communities participating in LA 21 processes), equity concerns are addressed mostly in the conventional way implying a moral obligation to support developing countries.26

The analysis of LA activities in climate policy with a focus on equity issues leads to the conclusions that
- the principle of global fairness in climate policy is not contested but rarely informs concrete climate/energy-related activities,
- the distributional effects of a climate policy focused on the needs of “the South” within the local community are not addressed,
- the main driving force in climate policy activities is “local self-interest.”

**Government’s and Central Actors’ Positions**

Germany is a pioneer in ecological modernization (EM) but a laggard concerning the institutionalization of the SD concept. Although the three-pillar concept of SD has been emphasized programmatically since 1998, the practiced concept – the “real-type” SD – is ecological modernization.

This kind of SD interpretation, biased by organizational interests, is also reflected in the (although not fundamentally) different views taken by the Council of Environmental Experts (SRU) and the Council for Sustainable Development (RNE). While the latter supports the equality of the three dimensions (and frequently stresses that SD is not environmental policy), the former puts environment first (“dauerhaft-umweltgerechte Entwicklung”) and attributes more weight to economic rather than social aspects, at the same time calling for an integration (i.e., systematic consideration) of environmental concerns in all policy sectors (for the political-strategic reasons, see SRU 2002).27 In their concrete activities, the majority of

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25 An analysis of LA 21 activities in Bavaria – one of the most active states in this area – comes, inter alia, to the conclusion that although climate protection is one of the most popular issues, “one-world” and “global justice” issues play only a marginal role. A general trend of decreasing participation in LA 21 activities is observed (Bayerisches Staatsministerium für Umwelt, Gesundheit und Verbraucherschutz 2004).

26 This statement does not intend to belittle the strong commitment of local actors in actual support of developing countries. Their efforts are all the more to be praised because the social and economic problems of local communities have become more severe over recent years due to the economic crisis, reduced local tax revenue and financial transfers by the state governments as well as additional (obligatory) tasks imposed on them by the federal government, and their diminishing influence on some relevant emitters due to the liberalized energy market (e.g. public utilities) (see Kopatz 2003; see also the restriction analysis for local “One-World” activities in the InWent newsletter, Dialog Global, No. 3/2003).

27 Neither the RNE nor the German Advisory Council on Global Environmental Change (WBGU) published studies or statements on the consequences of global climate policy for national equity. Even in its special report of 2002 (WBGU 2002), in which WBGU recommended a charge on the use of global commons (especially for the use of airspace by aviation and the use of oceans by shipping), and in its recommendations concerning the international conference “Renewables 2004” (WBGU 2004a), the distributional effects were rarely discussed. In
environmental NGOs are in line with the interpretation of the SD concept by the Council of Environmental Experts and the Ministry of the Environment, but programmatically they put more emphasis on the objectives of international and intergenerational justice. Mainstream environmental NGOs also regard EM as the best means for transforming industrial society in a sustainable way. Criticism of a “socially slimmed” concept is mainly heard from the Christian churches, developmental organizations, and some academics.

As applies for all other relevant social and political actor groups, “domestic” equity issues play only a very marginal role in the public media. There has been no real public discourse on these issues. While the discussion on possible climate change consequences is broadly reported and the need for more stringent mitigation activities is generally acknowledged, with respect to concrete German climate policy, the focus is mainly on positive and negative effects for the economic sector and security of energy supply.

Thus, the German “meta-discourse” on environmental policy is characterized by a mostly “passive” competition of two (overlapping) discourses, the SD and EM discourses. The former slightly dominates the programmatic rhetoric level, whereas the latter clearly guides governmental activities. Even within the Council for Sustainable Development no comprehensive “reference concept” was agreed upon by all members. As for the public, the broad majority is obviously unimpressed by meta-discussions on the SD concept.

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its study on the fight against poverty with the help of environmental protection policy (published in October 2004), the WBGU recommends to oblige the industrial countries to pay adequate compensation for their contribution to climate damages based on their emissions since 1990. The WBGU considers it a priority goal of the world community to reduce the massive disparities in the distribution of wealth. It also points at the positive effects efforts to alleviate poverty and to protect global public goods have for the industrial world (e.g. opening of new markets, reducing the danger of “environmental refugees”). The WBGU estimates that about US$400 billion per year in support of developing countries would suffice to reach the goals of protecting biodiversity and coping with the climate challenge (the cost for fighting poverty are not included); according to the WBGU the international community should be able to cover expenditures at this level (WBGU 2004b). The publications of the WBGU are available in German and English: http://www.wbgu.de. Comparing the two councils, it seems that the Council for Sustainable Development (RNE) considers national equity effects of globally oriented policies slightly more than the WBGU Advisory Council. This can be most clearly deducted from its proposals concerning guidelines for a modern coal policy (see RNE 2003).

28 Aside from some “radical” (but politically almost without any influence) and “Third World” organizations, the mainstream usually does not “overstretch” the equity issue in favor of global fairness, but they also do not bring up the tensions between global and national fairness. However, they often point at socio-ecological inequities inside Germany resulting from existing environmental policies (favoring, in their opinion, industrial interests). The transnational and global players among ENGOs (see, for example, GERMANWATCH, Climate Alliance) strongly support the idea of global equity at the global governance level, again without addressing its distributional effects at the national level. By the way, this loose or lacking connection with country affairs contributes to the increasing criticism of lacking accountability, responsiveness and legitimacy of NGO involvement (especially of international and transnational NGOs) in global governance (Beisheim 2004, Ottaway 2001). In a joint statement of various NGOs (DNR, Nabu, BUND) on the “consultation paper” of the national government on the SD progress report, the government was called on to put more weight on ecological aspects when amending its SD strategy. See RNE “Umweltverbände kritisieren Nachhaltigkeitspläne der Regierung”: www.nachhaltigkeitsrat.de/aktuell/news/2004/17-03_06/cont. For a critical assessment of the effects of the national SD strategy by German ENGOs, see www.nachhaltigkeits-check.de.

29 The discussion on “environmental justice”, which is particularly pronounced in the USA, is almost non-existent in the German media. In general, the number of reports on environmental matters (weekly and monthly magazines) decreased in 2003, the main focus being instead on energy and climate related topics (see IWD No. 6, February 2, 2004: Umweltpresse 2003)

30 In 2004, the term “Sustainable Development” was known only by 22 percent of the Germans – and only half of those who knew about it had a fairly correct understanding of its meaning (BMU 2004: 69).
On the whole, the analysis of the dominant policy concept supports the thesis that there is no comprehensive and differentiated national or intra-governmental discussion of global justice issues in connection with climate policy and on whose shoulders the burden of related policies, especially in the short to medium term, will rest.  

7. **Discussion: To What Extent Could “Moral Capacity” Explain the Achievements in Global Climate Policy?**

In a nutshell, the achievements are:

1. In a global perspective, climate policy achieved large GHG reductions – even when discounting so-called wall-fall profits.
2. For two decades, the federal governments have been driving forces in international climate negotiations, aiming at most demanding goals.

How can these outstanding achievements and Germany’s progressive role in international negotiations be explained? In the following I will discuss various factors/variables that are probably relevant:

7.1 **“Self-interest”**

7.1.1 **Vulnerability**

Germany’s vulnerability to physical effects of climate change is, at least, not above the average as compared to other industrial countries, often much lower than, e.g., for the United States, Japan, Australia or Spain. This also holds true for risks related to social-political side-effects caused by climate change in highly vulnerable countries or regions (e.g. “climate refugees”) (see WBGU 2007). However, related risk perceptions among the population are rather high: 75 percent are afraid of warlike conflicts in other countries about water and other resources, and 47 percent are afraid of negative consequences of the greenhouse effect for themselves and their families. Although no serious energy shortage has occurred since the oil price crises in the 1970s, a clear majority of those surveyed (59 percent) considers it the most important environmental political task of the federal government to make Germany independent of oil and gas supplies by increasing the share of renewable energy (BMU 2006a).

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31 The consequences of CO₂ reduction policies on domestic equity are most explicitly made an issue by the Ministry of Economy, although in a biased way by pointing at negative effects on economic growth or individual industries. No mention is made of effects on different social groups. This might be due to the fact that the Ministry of Economy usually does not act as an advocate for equity. So far, many climate policy instruments have been biased in favor of industry because of the Ministry’s support. Reference to national equity concerns is made frequently to ward off anticipated disadvantages for certain sectors or branches in national and international competition. Aspects of social distributional fairness inside Germany are discussed neither by traditional economic associations nor by those representing “green” enterprises. National (social) equity arguments are most frequently used by the coal and related industries (e.g. by referring to the threat of losing jobs). Among all actor groups, trade unions put the greatest emphasis on potential “loser” sectors – especially the coal mining industry – and detrimental socio-economic consequences of climate policy inside Germany, in particular, loss of jobs and negative distributional effects for workers and the weaker social groups. This is often combined with demands on the government to mitigate these effects with just transition policies (cf. Beisheim 2004: 174 ff.; DIW/WI/WZB 2000).
7.1.2 Pioneer and Long-term Profits
The flourishing renewables business and its overall positive effects (job creation, export boost) are well known and highly acclaimed by the Germans. The global-market prospects for climate-related technology are already very promising and will probably improve the more the higher the demands of international targets will be. However, a comparably high (or even higher) potential capacity for “climate technologies” also exists in other countries that have not yet exhausted their potential. And although this “climate/renewables business” sector is growing fast in Germany, its potential clout is by far too small to influence decisively governmental climate policy.

7.1.3 International Image
Germany’s general international position and image 60 years after the end of World War II is not so bad that one might assume the federal government chose the climate issue for a global PR campaign. And because of Germany’s relatively good image concerning environmental policy there was no relevant direct or indirect political-moral pressure on Germany to go ahead in climate policy.

7.1.4 Domestic Pressure
Although, for about ten years, there has been remarkable public support for a progressive global climate policy, in the late 1980s it was the federal government itself that set the pace of climate policy. The demanding domestic and international goals recently set by the government actually have been acclaimed by a majority of the population. However, these steps were not the result of “public pressure” (also note the ambivalent attitude of the German population towards cost-bearing mentioned above).

7.2 Climate Policy Discourse
The climate discourse, defined here as interrelated, climate-focused communications of actors involved (the “usual suspects”) – experts/scientific community, NGOs, business, trade unions, political parties, etc. – and the public media, developed relative fast towards broad acceptance and acknowledgment of basic features of the climate issue, for instance the anthropogenic nature of climate change, the urgency to combat North-South asymmetries with respect to polluters and sufferer, global injustice, etc. Generally one might say that the basic results of the various IPCC reports were quickly accepted by most actor groups. This contributed to strengthening the cognitive capacity to comprehend also the more complicated aspects of climate change and their relation to socio-economic factors and developments as well as policy measures. The climate discourse as understood here was most decisive for (cognitive-informational) capacity building and issue framing.

7.3 Capacities and Preconditions
7.3.1 “Conventional Capacities”
The average climate and geographical conditions (sunshine duration, prevailing winds, settlement structure, etc.) are not particularly favourable for a broad-based infrastructure for renewable energy. However, the non-physical capacities for environmental policy and management were highly significant for the development of climate policy. As described comprehensively in chapter 5, the German capacities are, by international comparison, of high quality (cf. Jänicke/Weidner 1997, Weidner/Jänicke 2002, Weidner 1997).

Since the late 1960s, when modern environmental policy was established in Germany, environmental capacities of all kind developed rather rapidly, at first at the governmental
level, then in the science and business sectors, and finally at all levels of society. This was not the result of a steady, linear process, but massive and long-lasting backlashes leading to a dramatic decline of existing capacities did not happen (in spite of changing governments). Due to specific situational constellations and historical predispositions, air pollution control policy focusing on stationary sources became the policy field in which capacities developed especially fast and continuously (Jänicke/Weidner 1997). Here, the hardest conflicts took place (because of, e.g., smog episodes, forest die-back, nuclear energy) and it was in this policy field where the so-called precautionary principle was often made an issue to call for and to justify stronger and more preventive control policy.

Thus, from the very beginning of modern environmental policy, energy production and the related private and public industries were at the center of environmental conflicts, public discussion and policy measures. And, of course, the first oil price crisis of 1973 also fueled the debate. The salient role of air pollution and energy production in environmental conflicts remained after the unification of the two German states because heavy air pollution and massive waste of energy resources had been basic features of the former GDR.

During the 1980s (West) Germany became Europe’s pace-setter in air pollution control policy and technologies. It was progressively engaged in international negotiations on long-range transboundary air pollution and also stimulated decisively EU policies. Since the 1980s remarkable progress was achieved. The emissions of a variety of air pollutants were reduced drastically, which led to a substantial and noticeable improvement of ambient air quality.

What is remarkable about this development with respect to climate change and energy policy since the 1980s? The following developments and experiences have been obviously supportive for proponents of a “progressive” policy (cf. Weidner 2002):

(1) The focus on air pollution from stationary sources and the massive social conflicts in this area led to a strong increase in all kinds of capacity for environmental management and control. This does not only concern the establishment of highly specialized institutions (for research, implementation, monitoring, etc.), the rapid development of an “abatement industry”, a broad monitoring network, the enactment of (“market-producing”) laws and regulations, but also the capabilities of NGOs to exert influence in the policy arena (also by co-operation).

(2) The precautionary principle (Vorsorgeprinzip) – one of the three core principles of German environmental policy, the other two being the polluter-pays and the cooperation principle – not only gained legal strength (owing to court decisions, new laws, etc.), but also in overall political-societal importance: Experiences made with air pollution control supported the “philosophy” of environmental proponents that a “risk-adverse” strategy is the best option in situations of scientific uncertainty about cause-and-effect relationships and prospects of immense non-repairable environmental damage if action should come too late.

(3) It was demonstrated that even very demanding and costly measures to curb air pollution did not have the detrimental economic effects as were claimed by industry and the utility sector and their supporters in government, scientific institutions and trade unions. On the contrary there was much evidence that the strict air pollution control policy favored employment, technological innovation and, generally, a modernization of industrial branches involved. These developments led to a broad acceptance of the paradigm of “ecological modernization” as a win-win strategy in solving environmental problems (Weidner 2005).
The confrontations with the utility sector demonstrated that even extremely powerful businesses are vulnerable. The strong power base of this sector was due to very specific German structures, partly dating back to the 1930s, which are characterized, for instance, by very close and nontransparent public-private relationships, strong involvement of trade unions, or complex and tight relationships between some enterprises and local politicians. The utility sector (as well as the coal-mining industry) mobilized enormous amounts of resources to prevent tighter emission standards, although ultimately unsuccessfully. Moreover, the public learned that strict environmental regulations very rapidly stimulated the development of abatement technology and created, in balance, positive economic effects.

The federalist structure of the German political system and the special leeway it provides for state and local initiatives in climate and, particularly, energy policy was highly supportive for innovations at the various decentral levels (e.g. co-generation), which later on influenced central-level policy.

Finally, the fast diffusion of German emission standards among EU member states demonstrated the decisive role of “pioneer countries” in stimulating international progress in environmental policy.

These experiences and events framed the climate change and renewable energy policy debate in Germany. When it entered the political agenda in the late 1980s, there was much less sceptical discussion about the assumptions published by scientific bodies that the increase of GHG in the long term will lead to dramatic climatic and environmental effects and that anthropogenic emission of GHG is the major driving force behind climate change.

7.3.2 Moral Capacity
The foregoing discussion demonstrated that in Germany over a period of more than 3 decades rather favourable preconditions for a progressive national climate policy could develop. The majority of the population and the “discourse elites” support governmental policy or even call for greater commitment in global policy – also as a matter of global justice. It is widely acknowledged that the atmosphere is a global common good and therefore there must be a fair, equity-based principle of sharing this good. This implies that industrial countries have to bear the bulk of costs accruing from coping with climate change, including manifold support of developing countries for their mitigation and adaptation efforts. The overall cost-benefit balance of a climate policy based on such principles and assumptions is mostly perceived as positive, both from a national and global perspective. From a global perspective there seems to be almost a combined win-win and no-regret policy. To perceive domestic consequences of a global justice-oriented climate policy in this way certainly makes it easier to acknowledge global justice principles and duties. Moreover, the above-average commitments and efforts could be seen as consistent with such a “beneficiary” perception – due to the expectation that national forerunner policy is necessary to create an international climate policy would award Germany with subsequent pioneer profits.

However, one should not conflate the dynamics of (conventional) capacities with moral-driven policies. The analysis of surveys on environmental awareness and of LA 21 activities (see chapter 4) reveals an ambiguity with respect to global justice. The issue of improving the situation in developing countries ranked quite low – as did the willingness to accept additional financial burdens for the sake of the global climate.

Although the principle of equal per capita emission “rights” of all countries is highly accepted, there is no clear-cut acceptance of, or even support for, a compensation formula based on that principle. There also exists no public discourse about this special issue of global
justice. The discourse on Germany’s responsibility toward developing countries did not go beyond a more or less vague acceptance of a general moral duty to contribute actively and progressively to an effective global climate change policy. For a longer period, this notion of moral duty had not only embraced active support for developing countries by various means but also refrained from requiring developing countries to reduce their GHG emissions. However, especially in preparation for COP 10 in Buenos Aires, the necessity of GHG reductions by large developing countries with a fast-growing economy was mentioned by the German government (Umwelt/BMU No. 7-8, 2004, p. 414). Since then the duties of these countries have been emphasized increasingly (in relation to a proactive policy, including technical, financial, etc. support, to come to binding commitments by countries like China, Brazil, South Africa). Due to a lack of studies with an explicit focus on the moral capacities of the German population for climate policy based on global justice, any statements on the role and strength of corresponding values and attitudes remain necessarily rather speculative and hypothetical. Against this backdrop, large parts of salient features of German climate policy could be explained plausibly by the effects of “path dependency” and “self-interest” (in a broader sense) as well as the “opaqueness” of large regressive equity effects of climate policy within Germany. What would happen if the Germans became aware that morally desirable policy goals will not be without consequence for themselves? This question will be discussed in the final part of this paper.

8. A Tentative Outlook

According to Ikeme (2003), the North and the South act on different conceptions of equity and environmental justice in confronting the issue of climate change: “The focus of the South has been on equality, distributive injustice and corrective justice for historical emissions … The North, on the other hand, focuses mainly on the most economically efficient path for minimizing climate impact and delivering global ecological health and stability … This has resulted in the North and the South broadly subscribing to opposing burden sharing formulas. It is commonly recognized that equal rights per capita entitlements is the most favored allocation option by the South, while the grandfathering rule is generally preferred by most countries of the North…” (Ikeme 2003: 200). Germany’s position is somewhere in between these two different conceptions: an ‘ecological debt’ and the idea of equal rights to the assimilative capacity of the atmosphere is accepted, but it is left open how far this historical (and continuing) burden should be transformed with concrete measures of corrective and compensatory justice. This ambiguous position, which – except for some few actor groups – is broadly shared by the German public, provides both the stimulus and legitimization for engaging in progressive (compared to many other industrialized countries) international climate-related activities by the German government.

Would the Germans, by and large, be prepared to accept more demanding duties and corresponding policy objectives of the government? Is there a larger reservoir of ‘good will’ to carry the burden of global climate policies than the foregoing analysis suggests? The answer is not easy because the analysis of the various surveys and LA 21 activities demonstrates that the attitudes and behavior of the public and the majority of relevant actor groups are also characterized by ambiguity with respect to climate-related mitigation and adaptation policy. Thus, the results of the analysis of public attitudes and activities suggest that a broad majority of the Germans would not agree with or actively support a more demanding governmental policy towards global equity if they had to bear the additional costs themselves. This is in line with general findings of research in morals and politics that consensus on the existence of a problem or a moral obligation to act need not create consensus on which action is to be taken and when. Still, the results of the surveys do not
necessarily imply that greater parts of the public would actively oppose a stronger governmental policy towards global equity. As is known from political theory, “diffuse support” (cf. Easton 1965; Lipset 1981) of a political system and/or of general norms may provide governments with more leeway for action as could be deduced from public attitudes towards specific issues. And, as a general moral duty is highly accepted that rich countries should support the poor countries, especially if the problems of poorer countries is mainly an outcome of the rich countries’ benefits, it seems to be reasonable to assume a rather high degree of diffuse support for (and ‘silent acceptance’ of) governmental activities even if they are not in accordance with people’s individual preferences.\footnote{32 For a general discussion of the interrelationship of consensus and acceptance in politics, see Neidhardt 2000.}

The degree to which ethical norms in public affairs enjoy explicit and diffuse support is the result of a complex process. One of the relevant factors is certainly the anticipation of the consequences the realization of the norm at issue would have on other norms and preferences. Actors apparently make choices between consequential calculations and normative appropriateness (Hurrell 2002: 144). But which norm is really at stake when it comes to more demanding policies against global climate change? If there is more than one relevant norm, I suggest that in this case of a norm conflict, the more fundamental norm of the set will be chosen, especially if its related consequences largely comply with actual preferences of needs of the group or the individual.\footnote{33 On multiple and conflicting images of justice of individuals and the problem of inclusion/exclusion of “others”, see Montada 1997. See also Linos/West 2003; Rasinski/Smith/Zuckerbraun 1994; Noël/Thérien 1995; Rayner 1991.}

As demonstrated in section 6.1, the normative concept of ‘public interest’ plays a strong role in German politics (for legitimization of policies and their effects), especially when justice or equity issues are involved. Compared to global or cosmopolitan norms of justice, it is (still) much more a territorial (national) concept. It emphasizes the needs and interests of the people ‘here and now’ instead of those ‘there and later’ (of an imagined world community and future generations). Obviously, in an arising conflict between the two types of norms, the ‘public interest’ will still be the decisive one in the public debate and for political decision making.

The still dominant role of (national) ‘public interest’ in global matters sets limits for policy approaches striving at global justice. These limits are not fixed once and for all. They are flexible depending on the public discourse and various other factors that cannot be discussed here (cf. Albrow 1996; Kersting 2000). However, it could be said that, in general, politically relevant problems of acceptance would arise if equity rules legitimized by the public interest concept were stretched too much in favor of ‘outsiders’, even if their demands were legitimated by an acknowledged global equity norm.

Is the German government approaching these limits with its post-Kyoto targets and related global climate change policy? The analysis of survey data – indicating, inter alia, rather low and at the same time decreasing public support for costly policies and a weak global orientation in LA 21 activities – seem to indicate this. At least, it will become harder to get consent for additional expenditures in favor of ‘global welfare’.\footnote{34 Studies by Eichenberger and Frey (2002: 275) have shown that “... most people do not behave in a purely egoistic way. This applies especially to situations in which moral and altruistic behavior only implies low cost”.}

But was the hitherto broad agreement with the government’s global climate policy goals actually based on a true public consent? I contend it was, at best, an un\textit{informed} consent. A legitimizing consent (i.e. providing legitimacy for important political measures) requires,
among other things, that the actors concerned are adequately informed about the implications of their consent. In this respect, the broad approval of the government’s climate change policy is not based on a completely informed consensus. The public, in general, does not have the information required to assess all relevant individual and group-related consequences of climate change policy. There clearly is a great lack of information on the distributional effects of the various (also planned) policies within Germany.

Both the government and the proponents of a strong global climate change policy provide the public only with sparse information – especially in advance – about the distributional effects of present and planned policies and commitments made in international negotiations, while plenty of information is given about potential benefits. In sharp contrast to the salient role global equity concerns are playing in the political discourse on climate change, the issue of equity within Germany is almost neglected by most of the proponent groups of progressive climate policy as well as academic circles.

Would there be a remarkable decline of public agreement with the government’s climate change policy, if the public had complete and adequate knowledge about the equity effects within Germany? This is a highly speculative question and therefore I will only address those (partly contradictory) factors that are supposedly highly relevant for this issue in a general way.

● Cost-Benefit Balance
In general, the (regressive) distributional effects at the national level have been seemingly quite small, even in the case of the most-contested eco-tax. Moreover, the absolute additional financial burden on the average household seems to have been, in monetary terms, rather small. Turning to a socio-economic macro-perspective and including a broader set of assessment criteria, then the overall effects of German climate change policy have been obviously positive: employment figures rose; new, modern and internationally competitive business branches were established; the dependency on fossil resources was lowered and will continue to decrease; and the ecological impacts of the policies are, as a rule, much lower compared to conventional ones. Furthermore, a reduced dependency on the world energy market goes along with Germany’s reduced economic-political vulnerability.35

● Situational Context Variables
For more than a decade now, there has been a broad and intensive debate about a crisis of the social security institutions: There have been deep cuts affecting the once closely knit ‘social security net’, which led to an erosion of basic foundations of the social welfare/solidarity system.

A large part of the population sees its social-security future as anything but rosy, and a general mood of ‘relative deprivation’ (cf. Runciman 1966; Gurr 1970) is spreading.36 These developments may contribute to the declining willingness to pay for environmental protection

35 Every now and then democratic-normative reasons are also used in favor of measures related to climate change policy; see for instance the statement by a member of the German parliament (Bundestag) in a debate on climate protection: “Ich finanziere doch lieber den Handwerker, der auf meinem Dach Wärmédämmung anbringt, als fundamentalistische Strukturen in Saudi-Arabien über das Begleichen meiner Ölrechnung” (Das Parlament No. 50/51, 16/13 December 2004, p. 1) [“I’d rather pay the man who insulates my roof than support fundamentalist structures in Saudi-Arabia by paying my oil bill”; author’s translation]
36 The “Data Report 2004” (Statistisches Bundesamt 2004) on the development of living conditions, structural changes and the subjective well-being of the Germans comes to an overall negative assessment of current trends: There has not only been an increase of the so-called poverty quota since 2002 but also a rise in the inequity quota (measured by the gini-index), i.e. the asymmetries in income distribution have increased.
and the growing attitude that environmental commitment should pay. Considering these developments, it seems to be a plausible inference that the willingness to contribute to global equity will also decline, if the actual (or perceived) cost-benefit balance should favor “the others” (especially those of rapidly developing, economically increasingly competitive countries). Correspondingly, this will lead to a more prominent position of equity concerns within Germany at the expense of equity issues and fair burden-sharing among countries.

**Political Culture and Welfare State**
The public surveys indicate that there is a broad (indirect) consent to the articles and programmatic statements dealing with global justice and burden sharing in the UNFCCC of 1992 (especially articles 3.1 and 3.2), the Berlin Mandate adopted by the first Conference of the Parties (COP-1) to the UNFCCC in spring 1995 (especially article 2(a)), the Kyoto Protocol of 1997, and – although weaker and on a much less well-informed basis – the European Community’s Triptique Approach to burden-sharing among the EU member states.  

The broad approval of fair global burden-sharing on the basis of equal per capita rights to the common good ‘atmosphere’ could be traced back to norms, values and beliefs rooted in the welfare state (including social market economy) as a model of social order and integration (cf. Alber 2001; Esping-Anderson 1990).

The German welfare state model is a system in which the government assumes the main responsibility for providing basic social and economic security for the state’s population. Among its core norms are: the elimination of “unfair” inequalities by way of distributional and redistributational policies, the provision of equal opportunities and the support of those who have not been able to achieve a certain standard of living on their own. Thus, redistribution of income and wealth, guided by the maxims of social solidarity, public interest and democratic capability, are highly internalized by the Germans, although the growing ‘crisis’ of the welfare state and the pressure exerted by ‘globalization’ on established institutions has furthered the influence of neo-liberal ideology, and especially since the 1990s discernible shifts towards retrenchment and restructuring of the welfare system (though not its abolishment) have taken place. However, as an ‘idea’ it still plays an important role in political conflicts and the public discourse, and so do the norms and values associated with this model (cf. Alber 2001: 97ff.). One of the core principles – the idea that the privileged people bear responsibility for the (socio-economically) weak – is deeply internalized. Together with other norms of the national welfare model it seems to be decisive in structuring the average attitudes of the population towards the various types of strategies that can be taken to solve global environmental problems.

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37 For the content of the various international agreements mentioned, see Ringius/Torvanger/Underdal (2002), especially pp. 13ff.
38 For a broad and in-depth discussion of the current challenges to the preconditions and norms of (global and national) solidarity see the various relevant contributions (especially by Münkler, Offe, Kaufmann, van den Daele, Döbert, Habermas, Stichweh and Berger) in Beckert et al. 2004; see also Streeck 2001.
39 Harris (2004: 255) found in his study that “... the Europeans have generally been more generous than the Americans are in helping the world’s poor, much as they are more generous in helping their own poor”. This proposition is supported by findings of cross-cultural research on the relationship of the design of the social system and the degree of support for redistribution policy. The strongest support for a governmental equality policy exists in the well-established Scandinavian welfare states, the weakest in Anglo-American countries. Germany ranks in between. Moreover, the social systems vary considerably when it comes to acknowledging the legitimacy of inequality. U.S. citizens, for instance accept much higher income differences as being adequate (fair) than Scandinavians or Germans (cf. Alber 2001: 93; see also Liebig/Wegener 1995).
Equity, to conclude, is a highly acclaimed and deeply engrained value in the German society, from which follows that there is a very broad consensus that equity should also guide policies concerned with the global commons. However, as yet it has not reached the standing of a true (‘thick’) universal norm, independent of changing context conditions affecting the allocation of costs at home. Apparently, the willingness to support additional globally oriented policies starts to drop rather rapidly once a certain degree of individual cost burden has been reached. This threshold value is not fixed and not solely defined in monetary terms: it is made up of a variety of interrelated factors, such as an assessment of the seriousness of the problem and the potential costs and benefits of mitigation policies; the current individual state of welfare and its future prospects; a sense of general moral obligation to contribute to problem-solving efforts; the perception of fairness of burden sharing implied by governmental global climate policy; characteristics of the public discourse on the issue, and; expectations about “reciprocity”, i.e. assumptions about the future attitude and behavior of the recipient (“benefiting”) countries.

The analysis of public opinion surveys and LA 21 activities suggest a factor constellation, in which the (shifting) threshold value may be reached soon, at least the mobilizing and legitimating power of the ‘moral factors’ has apparently lost momentum. Consequently, if the government will further follow the (globally rational) way, it will have to prove more convincingly than in former times that its policy will also increase individual and public welfare within Germany. From this follows, that regressive distributional effects of climate policies will increasingly become critical information, weakening the leverage of proponents of a more forceful global climate change policy. Therefore, it seems to be plausible that neither the current government (like its predecessors) nor environmental NGOs will set the issue of equity within Germany prominently on the political agenda. This assumption seems to hold if one considers that up to now they have not addressed national equity effects of climate policy in any way that is worth mentioning. Instead, they have strongly emphasized the great benefits of climate policy for the environment, the economy at large and political security – all of which are objectives that are more fundamental to the concept of ecological modernization than that of sustainable development.

Within Germany, a structural change towards a climate-sensitive energy policy has been adopted at rather low social cost and with quite high public acceptance. Yet, whether these favorable conditions will prevail, depends much more than before on the government’s ability to manage the equity issue within Germany which will definitely grow in importance.

References


See Ringius/Tovanger/Underdal (2002) for a general discussion of the role of fairness principles in global climate change policy; see also Albin (1993) on the role of different fairness concepts in negotiation.
Lafferty/Meadowcroft (2000: 453) came to the conclusion that in Germany there is no “hegemonic discourse”. This finding holds true for the rhetoric and programmatic level that is characterized by a mix of both discourses (the SD and the EM discourse). However, the concrete policies and the public attitudes with respect to climate change policy clearly show the preponderance of the ecological modernization concept.


Reich, M. R. (1984): “Mobilizing for Environmental Policy in Italy and Japan”. In: Comparative Politics, 64, 4, 379-401.


