



The  
Federal Government

# Progress Report 2008

on the National Strategy for  
Sustainable Development

## For a Sustainable Germany



German Strategy  
for Sustainable  
Development

The aim of our Strategy for Sustainability is to establish a sustainable Germany for us, our children, and our grandchildren. Sustainability policy is driven by intergenerational equity, securing a future for both present and future generations that is worthwhile.

Against this backdrop, sustainability represents a fundamental challenge, both at the national level and on an international scale. It is our duty and responsibility to respect the limits for the burden on our planet. The task is to find a balance between the requirements of environmental protection, economic productivity, and social responsibility. What we do today must not deprive our children and grandchildren of the opportunity to lead prosperous lives in a sound and healthy environment. For this reason, sustainability is a guiding principle of the Federal Government.

With this report adopted by the Federal Cabinet, the Federal Government builds onto its National Strategy for Sustainable Development of 2002 and develops it further. The range of topics in this report extends from climate protection, the management of limited resources, and the safeguarding of world food supply to the social opportunities resulting from demographic change. Among other things, the report highlights the importance of a balanced public budget for intergenerational equity, since an excessive accumulation of debts and the associated increasing interest burden limit the scope of future political action.

We have made important progress in achieving a sustainable Germany. Nevertheless, we are still facing enormous political and social challenges. Thus, sustainability as a guiding principle places high demands on a modern innovation policy that prompts the development of new energy-efficient technologies and environmentally sound products and processes. These, in turn, open up new opportunities for employment.

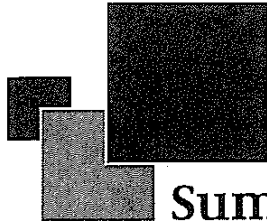


Sustainability is not solely the responsibility of the Federal Government. I, therefore, very much welcome the fact that the German Council for Sustainable Development, along with the German Parliamentary Advisory Council on Sustainable Development and leading associations at regional and local levels, contributed to this report.

However, the commitment of politicians in and of itself does not guarantee that securing a sustainable life and way of business in any society. Protecting human life, the preservation of natural resources, and an adequate economic development are issues that affect every individual. Entrepreneurs are influenced by these issues in their decisions about production methods and procedures as are consumers in their choice of products. Each and every one of us is required to make sustainability an essential element of our thinking in every sphere of life. We will only succeed in living the concept of sustainability and making it the hallmark of the 21st century if we all join forces towards this aim.

A handwritten signature in cursive script, which reads "Angela Merkel".

Angela Merkel



## Summary

How do we want to live today and in the future? How do we fulfil our responsibility—at the national and international level? Where does our country stand today? These are questions this Progress Report 2008 on the National Strategy for Sustainability of the Federal Government will address.

### Sustainability as a guiding principle

The concept of sustainability combines economic power with ecological responsibility and social justice. None of these three goals can be achieved without the other for, in the long run, no economic growth that is based upon either the ruthless exploitation of nature or social injustice is conceivable. We are aware of our responsibility not only for the present generation, but also for those to come. What we do today must not deprive future generations of the opportunity to lead prosperous lives in a healthy environment.

Chancellor Dr Angela Merkel, 52nd Food Business World Summit, 18th June 2008

Sustainability is a guiding principle of Federal Government policy (Chapter A). If we aspire to maintain our means of livelihood, our decisions must be viable on a global scale under the three aspects mentioned above: economy, the environment, and the social system. The aims of sustainability are to promote intergenerational equity, a good quality of life, social cohesion, and international responsibility. Sustainability is a benchmark for progress in our society. In order to achieve this, the right course of action for the twenty-first century must be set.

Sustainability affects all policy areas both at national and international level. It does not stop at the peripheries; nor does it stop at our borders. Therefore, the industrial nations bear responsibility for the opportunities of people in other countries. We have no right to pass on the social and ecological burdens caused by our prosperity to others. At the same time, developing

countries are entitled to fair use of resources and fair participation in world trade.

In order to make sustainability a real guiding principle for politics, it must be given top priority. For this reason, responsibility for the topic of sustainability resides with the Federal Chancellery at the national level. All ministries get involved in the implementation and further development of the Strategy.

### The Strategy

In this Progress Report, the Federal Government draws upon the Strategy for Sustainable Development 2002, presented for the first time by the Federal Government at the World Summit on Sustainable Development in Johannesburg and, subsequently, further developed, among others, in the last progress report in 2004.

The Federal Government strives for a sustainable development of both our country and the world in terms of economy, ecology, and social issues. Its policy is based on a long-term, global perspective that spans generations. However, it is not only politics that is challenged to rise to this goal, but also the economic sector, society, and every individual. For this reason, sustainable development is a dynamic reform process involving society as a whole. The guiding principle of sustainable development, however, is not the solution to all problems of our time. We still need to discuss and decide upon what would be the right development. This is as true in politics as well as with business and the private sector.

Sustainable development does offer, however, important general orientation concerning the question of how we want to live today and tomorrow. Since the diverse political challenges can not be

covered by one strategy alone, sustainability as a guiding principle must be considered in other strategies and decisions adopted by the respective players involved.

### Increasing the influence of sustainability

The aim of the Federal Government is to strengthen sustainability as a guiding principle with its Progress Report 2008.

An important starting point is legislation. The question that must be posed in the future every time a law or decree is initiated is: what consequences will the project have on aspects of sustainable development? For this reason, sustainability will be anchored in the Joint Rules of Procedure of the Federal Ministries (GGO) within the framework of legislation impact assessments.

The broader 'sustainability management' of the Federal Government will also be improved. The concept of sustainability management contains three elements:

#### ■ Management concept of sustainability

##### Management rules

The ten management rules summarise the guiding principle and the demands placed upon sustainable development.

##### Indicators and goals

Indicators show our progress on the road to sustainable development. Goals highlight the need for action and are important milestones for measuring progress and success.

##### Monitoring

Every four years, a Progress Report presents in detail the status of sustainable development. This report is complemented by an Indicator Report published by the Federal Statistical Office every two years that presents the development of the indicators of sustainability.





For improved sustainability management, the rights of the State Secretaries' Committee on Sustainable Development, among others, will be strengthened. This Committee is chaired by the Head of the Federal Chancellery. In the future, reports from the various ministries, cross-departmental projects, and the involvement of additional key players will increase the impact of the Sustainability Strategy on everyday politics.

### Indicators of sustainable development

Regular monitoring of progress based on certain criteria and indicators is an essential element of any successful project management. The Strategy for Sustainability contains indicators on 21 topics (Chapter B).

In preparing this Progress Report, the indicators and goals in place since 2002 have been carefully evaluated. Decisive criteria in this revision were continuity and transparency (Chapter B.I.). Within this framework, some new goals were added, such as preventative measures in the health sector.

The independent expert analysis of the development of the indicators by the Federal Statistical Office (Chapter B.II.) reveals that important challenges remain to be met on the path towards sustainable development.

Indicator status			
			
12 goals	4 goals	12 goals	7 goals

Computations of the Federal Statistical Office on the basis of data of the previous years (assumption: development remains stable); compare the table immediately preceding B.III.

Positive developments were especially apparent in climate protection: from 1990 to 2007, the emission of greenhouse gases went down by about 20.4% (preliminary figure). In order to achieve the goal agreed upon in the Kyoto Protocol, a reduction of a mere additional 0.6% by 2012 is necessary. The share of renewable energies in primary energy consumption has increased enormously during the period between 1990 and 2007, namely from 1.3% to 6.7%. This means that the goal of 4.2% set out in the 2002 Strategy for Sustainability to be achieved by 2010 was already more than surpassed three years earlier. The share of renewable energies in electricity consumption went up from 3.4% to 14.2%. Here also, Germany had by 2007 reached its goal set for 2010, which was to cover at least 12.5% of its electricity supply with renewable energies. This means that the current European goal agreed upon for 2012 is also met.

The Federal Government has also made significant progress in the consolidation of the national budget. In 2007, for the first time since 1989 (with the exception of 2000 as the result of revenues from the sale of UMTS licenses), a balanced national budget was achieved. At the same time, the *Länder*, municipalities, and social insurance agencies registered surpluses. Only the Federal Government recorded a deficit. It is now set as a new goal of the strategy to achieve, by 2011 at the latest, a public budget without net borrowing. There has also been progress with regard to economic development, the reduction of smoking among adolescents, the employment of older workers, full-day facilities for

children between three and five years of age, and the development of imports from developing countries.

In a number of other areas however, such as education and mobility, goals have not been met. It is also very unsatisfactory that the average salary of women in Germany is still far below that of men (cf. overview in Chapter B.III.). The Federal Government regards such points as stimuli to increase its efforts at achieving a sustainable Germany and intends to intensify its cooperation with other players to that regard. Very often, the goals of the Strategy for Sustainability can only be achieved in cooperation with civil society and all the other levels of government (regional level, municipal level).

### Key aspects of the Report

The Progress Report focuses on the topics of climate/energy, resources, social opportunities resulting from demographic change, and world food supply (Chapter C).

#### • Climate/Energy

Climate and energy (Chapter C.I.) are central issues in the context of sustainable development, since climate protection and the way we adjust to climate change are among the greatest challenges to mankind in the twenty-first century. The report of the Intergovernmental Panel on Climate Change (IPCC) in 2007 made clear that an increase in temperature of more than 2° C over that of pre-industrial eras is not acceptable in its effects upon human beings and the environment. In order to avoid such an increase, the worldwide emissions of greenhouse gases must be reduced by at least 50% by 2050 as compared to the year 1990. For the industrial countries, this signifies a reduction of at least 60-80% by 2050. This means that the world population should not emit more than 2 tonnes of greenhouse gases per capita and year for the long term.

#### ■ Goals of the Strategy:

- Double energy productivity by 2020
- Reduce greenhouse gas emissions by 21% in 2008/2012 compared to 1990
- Increase the share of renewable energies to at least 30% of electricity supply by 2020

Moreover, with the development of the Integrated Energy and Climate Programme (IECP), the Federal Government set the course

for adherence to ambitious climate protection goals beyond 2012. Among the measures aimed at achieving this goal—which in part are currently still discussed in Parliament—are amendments to the ‘Combined Heat and Power Act’ (*KWKG*), the ‘Energy Conservation Act’ (*EnEG*) and ‘Energy Conservation Ordinance’ (*EnEV*), redesign of the public funding landscape by improving existing funding schemes, and the establishment of new programmes in order to promote energy-efficient modernisation of buildings/social infrastructure. Furthermore, projects include the issuance of guidelines for the procurement of energy-efficient products and provision of services, the amendment of the ‘Renewable Energy Sources Act’ (*EEG*), a bill on the ‘Renewable Energies Heat Act’ (*EEWärmeG*), and measures for facilitating the feeding-in of biogas, as well as a law on the accelerated development of maximum voltage networks.

At the European level, groundbreaking goals for climate protection have been agreed upon for 2020 under the German EU Presidency. These goals can be achieved by means of a clear increase in energy productivity, the use of low carbon technologies, and the development of renewable energies. The measures of the EU climate package will make a positive contribution towards achieving these goals.

The area of energy efficiency remains a special challenge. In order to increase energy efficiency, there is a need, among other things, for efficient power stations low in greenhouse gas emissions. This may entail replacing old power stations with new ones. These should, wherever possible, be built using cogeneration (combined heat and power generation), which increases fuel efficiency by up to 90%.

In this way, Germany and the EU will continue to justify their reputations as pioneers in climate protection. On this basis, the Federal Government has been advocating an extensive and effective follow-up agreement to the Kyoto Protocol at the international level.

In the meantime, the climate has started to change. In order to confront the no longer avoidable consequences, the Federal Government is working on an adaptation strategy for economy and society.

#### • Resources

Urgently needed are increased efforts for a sustainable management of resources (Chapter

C.II.). Higher materials efficiency and their more frugal use decrease effects on the environment. In the past five years, the prices of important industrial resources have, in some areas, more than doubled. Against the background of increasing materials shortages, the issue is to reduce production costs (for the manufacturing industries, costs of materials currently amount to 40% of total costs) and to secure supply of resources for the industry. Lastly, the social, development assistance political and ecological effects of the reduction of resources must be carefully examined.

#### Goals of the Strategy:

- Use of non-renewable and renewable resources in a sustainable manner that opens up comparable economic potential for current as well as future generations, and prevents ecological and social burdens both from a national and international point of view
- A doubling of resource productivity by 2020

In order to double resource productivity compared to 1994 by 2020, further efforts are necessary. Important fields of action are the improvement of material efficiency, the development of advanced materials that conserve resources, the improvement of recycling, and the increased use of secondary raw materials and renewable resources.

In meeting the requirements for raw materials by means of their extraction and import, negative social and ecological consequences must be avoided—both on the national and international levels. Internationally recognised minimum standards and conventions must therefore be implemented, and the responsibility of the private sector (within the framework of the 'Global Compact' and the OECD guidelines for multinational companies) included. In addition, the Federal Government supports the 'Extractive Industries Transparency Initiative' (EITI) as a means of combating corruption in the raw materials sector.

The Federal Government has introduced a number of specific proposals for increasing resource productivity. In this context, the support of various research projects should be mentioned. Many measures denote economic areas with intensive resource consumption as their starting point, since innovation in these areas may have an important leverage effect and may also increase efficiency in other areas. A programme for improving material efficiency in small and medium-sized businesses (SME) is a response to the fact that existing potential for cost reduction is being under-utilised in daily

business. The *Netzwerk Ressourceneffizienz* ('Network for Resource Efficiency') established in March, 2007, was designed to make use of the efficiency potential by utilising modern information and communication technologies.

Additional measures aim at the more intensive use of wood as an alternative for other more energy- and resource-intensive raw materials and materials used in industry, as well as the multiple use of renewable resources (cascade and coupled use). In addition, the Federal Government advocates for increasing transparency in the raw materials sector of developing countries by means of certification measures.

#### • Demographic change and social opportunities

In the future, fewer people will reside in Germany; more importantly, their average age will be higher. This may only be balanced to a certain extent through migration, or better still by an increase in the birth-rate. Due to the fact that the birth-rate has been declining since the 1970s, there are already fewer potential mothers and fathers among the population.

Unfortunately, this demographic change is usually perceived in negative terms. The question of how this change can be considered positively has been neglected (Chapter C.III.E.). In fact, many older citizens in particular possess a high degree of experience, creativity, and innovative thinking; here we have a group that desires to exercise their potential not only for themselves, but also for others. In this way, demographic change can offer opportunities to strengthen civil society, garnering a stronger sense of solidarity between generations and promoting a culture of cooperation.

#### Goals of the Strategy:

Develop and promote opportunities for social cohesion that arise from demographic change

Such opportunities can only be employed if voluntary civic involvement becomes more attractive. In this context, the Federal Government has introduced a variety of measures. Changes in tax law play an important role here, as do measures within the context of the health care reform to support those caring for family members.

Civic involvement mainly takes place at the municipal level. The Federal Government has

provided multifaceted support for this involvement, in particular by designing appropriate legal framework, initiating pilot projects, providing financial support for infrastructure investments, performing research, and the disseminating information. Model areas of activity here are rural areas and the sector of health care. In order to make successful examples drawn from practical experience known to a broader public, the Federal Government will initiate a competition based on the model of the earlier, successful national campaign, *Bürger initiieren Nachhaltigkeit* ('Citizens Initiate Sustainability'). The new competition will be geared towards the topic *Zusammenhalt der Generationen* ('Solidarity of the Generations').

#### • World food supply

The increasing prices on the world market for foodstuffs and energy endanger the 50% reduction in the number of the hungry worldwide, a goal for 2015. The crisis-ridden development of world food supply (Chapter C.IV.) is a challenge that impinges all political areas, one that requires a coordinated international strategy for action.



#### Goals of the Strategy:

Contribute, by means of concrete measures, to the declared goal expressed in the Millennium Declaration by the world's heads of states and governments to reduce by 50% the number of the hungry worldwide by 2015

An action plan must relieve the burden in the short term, but also must consider the main reasons for this trend. The action plan will include revised dietary habits, global growth in population, and the neglect of the agricultural sector in many developing countries during the last few years, as well as the demand for agricultural raw materials for the generation of biofuels.

Besides emergency and food aid, increased bilateral and multilateral cooperation and activities in the area of research and trade policies, an improvement in the institutional and legal framework in developing countries is especially necessary. The competition between biomass production for energy extraction and for the use of the material, on one hand, and the production of food and fodder and the maintenance of areas necessary for biodiversity, on the other hand, must also be reduced.

Where conflicts cannot be resolved, ensuring food supply takes priority over other uses of

agricultural products. The goal must be to preserve all uses in a sustainable fashion.

#### Sustainable development—a challenge for every political arena

This Report will present the individual policy areas in line with the EU Sustainable Development Strategy—in particular Chapter D; it demonstrates the broad spectrum of topics that are relevant for sustainable development.

#### • Example mobility

Developing a policy of sustainability in the area of transport presents a number of challenges (Chapter D.I.). In order to create conditions for an integrated approach to a sustainable transport system, the Federal Government took the initiative of improving the CO<sub>2</sub> efficiency of vehicular traffic by developing the *Masterplan Güterverkehr und Logistik* ('Freight Transport and Logistics Master Plan'). In addition, the *Kraftstoffstrategie der Bundesregierung* ('Federal Government Fuel Strategy') will be aggressively pursued and further developed. Moreover, the promotion of alternative fuels and innovative, efficient drive technologies remains an important focus for achieving greater independence from mineral oil and arriving at adequate climate protection as it relates to transport. Finally, measures for stronger noise protection are contained in the Federal Government's noise protection package currently being implemented.

#### • Example sustainable consumption

Consumer behaviour plays an important role in achieving sustainability in everyday life (Chapter D.II.). More than 20% of greenhouse gas emissions in Germany are caused directly by private households. An increasing number of people are aware of these inter-relationships. An increase in demand for ecologically produced products is one example of this trend. Retail trade as the interface between production and consumption plays a central role for sustainable consumption.

#### • Example natural resources

Renewable natural assets (Chapter D.III.) may only be used long term to the extent that they are able to regenerate. This is required by the second

management rule of sustainability. Land use is currently not sustainable in Germany. In 2006, 106 hectares per day were newly developed for use. The Federal Government's goal for 2020 is 30 hectares per day. The subject of land use is an example of the necessity for vertical integration of the guiding principle of sustainability as well as for shared responsibility of the Federal Government, the *Länder*, and the municipalities. In order to achieve its goal, the Federal Government initiated numerous multifaceted measures, often in a dialogue with the *Länder* and municipal levels. Still, further progress is needed in this important area.

Biological diversity is vital for human life on planet Earth. Whether as host to the most recent UN Conference of the Parties to the Convention on Biological Diversity (CBD) or within the framework of the National Biodiversity Strategy, Germany accepts its responsibility to reduce significantly the loss of biodiversity by 2010 by means of concrete measures.

The Federal Government expressly advocates that on a national level, within the framework of EU fishery policy, as well as on the international level, the principles of sustainability be applied more strongly than up to date.

#### • Example education and research

To impart knowledge about sustainability early in school education is the goal of the United Nations Decade of Education for Sustainable Development. Thanks to various activities carried out by the *Länder* in cooperation with the Federal Government, the topic of sustainability is now permanently anchored in school curricula (Chapter A.I.3.).

The 2004 framework programme 'Research for Sustainability', the Federal Government's High-Tech Strategy for Germany 2006, and its High-Tech Strategy on Climate Protection 2007 set the path for sustainable development with regard to research policy (Chapter D.VIII.). Through the programme 'Research for Sustainability' alone, more than 1,000 projects within four years were supported. In order to separate economic growth from the consumption of energy and resources and from transport intensity, research and development as well as the dissemination of knowledge by means of specific educational measures play a significant role.

#### • Sustainability as an international challenge

The Federal Government admits assumption of international responsibility (Chapter D.VI.) as an indispensable prerequisite for global sustainable development. The fight against poverty and the destruction of natural resources are important challenges in achieving this goal. The German commitment is based on the United Nations Millennium Declaration and the Millennium Development Goals (MDG) derived from it, the resolutions taken at the Earth Summit 1992 in Rio and the action plan of the World Summit on Sustainable Development 2002 in Johannesburg.

In recent years, it was possible to launch important processes within the framework of the German G8 Presidency in 2007. A central challenge that remains is the achievement of the MDG, even if in many countries important progress has been made. In terms of sustainable development, securing natural resources and creating a global partnership remain important fields of action. The implementation of the ambitious action programme *Klima und Entwicklung* ('Climate and Development'), an increase in the financing of development assistance, and the successful resolution of the Doha Development Round are important steps within this context. Of equal key significance is the question of whether the necessary adaptation to the change in climate will be successful, especially in poorer countries. In all of these areas, Africa is at the centre of attention of the Federal Government. It will prove decisive for positive development over the next few years to firmly establish the issue of sustainability in the development assistance agendas of partner states as well as those of the donor states and institutions.

#### A common task of the Federal Government, the *Länder*, municipalities, and civil society

Sustainability cannot simply be decreed by the Federal Government. What is required is a joint effort on the parts of the Federal Government, civil society, the *Länder*, and municipalities. For this reason, in addition to the German Council for Sustainable Development called in by the Chancellor, the Parliamentary Advisory Council on Sustainable Development of the German Bundestag, the *Länder*, and the municipal umbrella organisations were invited for the first time to be involved in the preparation of this report.



In a contribution to the report that was unanimously approved by all parliamentary groups (Chapter E), the Parliamentary Advisory Council on Sustainable Development affirmed its demand to make sustainability a guiding principle of German politics. With its work, the Parliamentary Advisory Council actively contributes to giving greater consideration to the guiding principle of sustainable development within the processes of shaping policy.

The German Council for Sustainable Development advises the Federal Government in matters pertaining to sustainable development, and is an important player for the social dialogue on sustainability. In its contribution (Chapter F), the Council strongly advocates strengthening the binding nature of the Sustainability Strategy and calls for an improved sustainability management.

In the contribution approved by the Minister-Presidents (Chapter G), the *Länder* avow sustainability as a goal in the development of their respective *Länder*. They offer the Federal Government close cooperation on sustainability issues—an offer that the Federal Government gladly accepts.

The municipalities equally emphasize in their contribution (Chapter H) their interest in a closer cooperation as well as an increased support of sustainability activities at municipal level by the Federal Government. The Federal Government also wishes to intensify cooperation with the municipalities.

### **Sustainability—not purely a national affair**

In many areas, policy-making in Germany occurs today in the interplay between the national and European level (Chapter I). The European Union considers sustainability to be one of its political priorities. The 'Renewed EU Sustainable Development Strategy', adopted by the European Council in 2006, is thus an important benchmark for national activities. Many goals and measures in this report area correspond to those on the European level. This correlation should and must be strengthened even further.

With its Sustainability Strategy, the Federal Government is involved as part of an international process. A milestone was the Brundtland report of 1987 that provided the conceptual framework for the resolutions of the Earth Summits in Rio de Janeiro in 1992 and Johannesburg in 2002.

Despite legitimate criticism (even by Germany) on individual points in the work of the UN Commission on Sustainable Development (CSD), CSD remains an indispensable body at the level of the United Nations (Chapter J).

### **Public dialogue**

The discussion as to how we wish to live in the long run and what priorities we set in doing so concerns us all. For this reason, the Federal Government placed great importance on giving the public the opportunity to be comprehensively involved in the preparation of the present report with ideas and proposals at an early stage.

The statements of the public (see Chapter A.V.) have shown that the topic of sustainability enjoys broad support among civil groups. There is no dissent, however, in the public sphere with regard to the necessity of sustainable development. Knowledge of sustainability has entered political and social life across all political parties and is now firmly rooted there. The Federal Government considers this to be a confirmation of its policy and will place sustainability as a guiding principle even more strongly in the focus of its action.

### **Conclusion**

Sustainability is an ongoing task that requires patience and resolve. It is necessary to consider sustainability as a guiding principle of Germany in a comprehensive and consistent manner. Sustainability has an impact on all policy fields. Technical, economic, and social progress must be measured against the principle of sustainability. Only when the challenge of sustainability is truly faced and sustainability efforts put into daily practice by all stakeholders can it become an engine of renewal. In this spirit, the National Strategy for Sustainable Development is a strategy for the future of the twenty-first century.



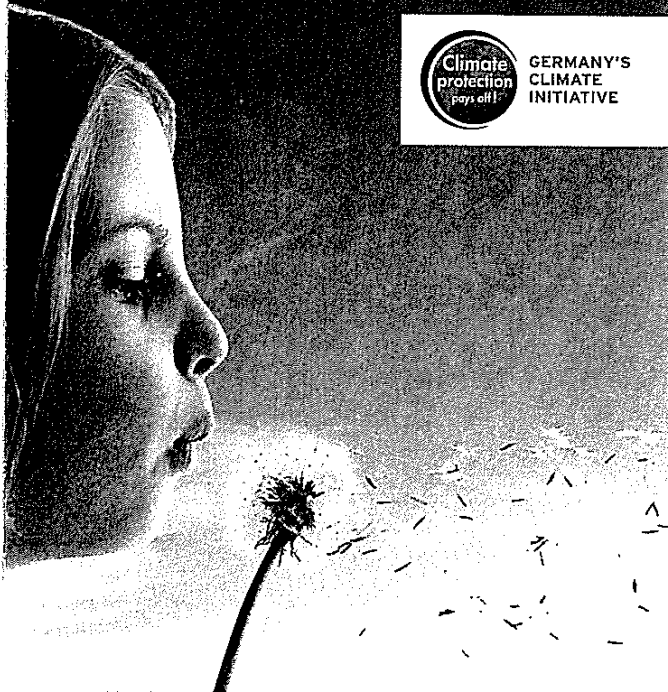
Federal Ministry for the  
Environment, Nature Conservation  
and Nuclear Safety

## CLIMATE PROTECTION PAYS OFF

How the National Climate Initiative uses  
revenues from emissions trading



GERMANY'S  
CLIMATE  
INITIATIVE



## WHAT AREAS BENEFIT FROM EMISSIONS TRADING REVENUES?



The German government has set itself an ambitious target for climate protection: to reduce greenhouse gas emissions by 40 percent by 2020 compared to 1990 levels.

To achieve this goal the revenues from emissions trading are used for climate protection. The Federal Environment Ministry receives 460 million euros from the sale of emission allowance. Projects in Germany are allocated 340 million euros while 120 million euros are earmarked for international projects. This money supports climate protection programmes and projects with substantial potential for reducing greenhouse gas emissions.

The National Climate Initiative's funding for climate protection benefits industry, local authorities and educational establishments, as well as consumers directly. This money supports investments in energy efficiency technologies and promotes information and education on intelligent energy saving. Consuming less energy has a twofold advantage: it improves climate protection and lowers costs.

Emissions trading opens up new scope for action – more can be achieved through efficient funding. This helps the climate, secures new jobs and benefits the public as a whole.

## CLIMATE PROTECTION PAYS OFF FOR CONSUMERS



Some of the revenues from emissions trading are used by the National Climate Initiative to directly inform consumers. There are many ways in which private individuals can use energy more efficiently and save costs at the same time. Simply switching off the standby mode on appliances

would save around 22 billion kilowatt hours of electricity in Germany and reduce the annual energy costs of a household by up to 85 euros.

The greatest energy saving potential is in the heating of buildings. For this reason, in addition to the existing building modernisation programmes, support is also given to highly efficient mini CHP plants for private households. These combined heat and power (CHP) installations produce both electricity and heat, thus utilising up to 90 percent of the energy input. The National Climate Initiative also supports consumer associations in offering numerous tips on climate-friendly mobility, while the consumer foundation "Stiftung Warentest" provides practical advice on energy-saving household appliances.

### Climate protection in practice: checking energy consumption

With support from the National Climate Initiative, the welfare association Deutscher Caritasverband joined the German energy agencies to launch the nationwide energy saving action "Stromspar-Check". This programme helps low-income households to save energy costs. Trained advisers in energy saving visit individual homes and conduct a free analysis of the electricity consumption. Households are provided with immediate aid such as energy-saving light bulbs and given a detailed electricity saving plan.

## CLIMATE PROTECTION PAYS OFF FOR LOCAL AUTHORITIES



The revenues from emissions trading enable the National Climate Initiative to fund a wide range of projects at local authority level. For local authorities are a supporting pillar of climate protection. This sector has enormous saving potential in terms of

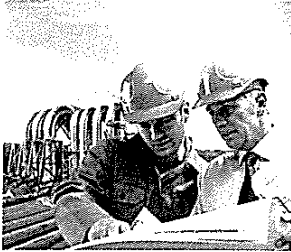
energy consumption and greenhouse gas emissions – whether in schools, swimming pools or town halls. At the same time, reducing consumption eases the burden on the municipal budget. Moreover, investments in climate protection help boost the local economy, which triggers the modernisation of infrastructure and the development of innovative technologies. This directly benefits local industry by supporting firms in the area and creating long-term employment.

The National Climate Initiative's new support programme for local authorities focuses on a number of different areas. For instance, it funds long-term climate protection concepts which are aimed at developing the entire local community. But support is also given to individual projects such as the installation of high-efficiency lighting systems in public buildings or the CO<sub>2</sub>-neutral modernisation of schools.

### Climate protection in practice: high-efficiency urban lighting

Around one third of Germany's street lighting is at least 20 years old. Modern technology can halve CO<sub>2</sub> emissions and at the same time significantly improve lighting quality. The installation of high-efficiency lighting is therefore supported with a grant of 25 percent. As a further incentive for innovation, a nationwide competition on energy-efficient urban lighting was held in cooperation with the KfW Banking Group, attracting the participation of many local authorities.

## CLIMATE PROTECTION PAYS OFF FOR INDUSTRY



Climate protection offers a variety of opportunities to both individual companies and German industry as a whole. The National Climate Initiative focuses on energy efficiency, thus helping to reduce regular energy costs. Scientific studies all show that trade and industry hold considerable potential for improving efficiency. Industry directly benefits from this, with companies becoming more competitive, jobs more secure and export opportunities stronger.

considerable potential for improving efficiency. Industry directly benefits from this, with companies becoming more competitive, jobs more secure and export opportunities stronger.

The National Climate Initiative therefore specifically supports the use of innovative efficiency technologies. For instance, grants of up to 25 percent are available for consultation and investment for climate-friendly refrigeration technologies. By 2020, industry could save 20 to 40 percent of its energy consumption, under economically viable conditions and with technologies already available such as high-efficiency electric drives or refrigeration systems.

### Climate protection in practice: 30 climate protection networks

The 30 pilot networks for energy efficiency and climate protection, supervised by the Fraunhofer Gesellschaft, are an example of how support can have a major signalling effect. Around 400 medium-sized companies form networks of 10 to 15 operations each, with the goal of significantly increasing their energy efficiency. The networks aim to raise efficiency by a factor of 2 to 3 compared to the average for German industry. Examples from Switzerland prove that this is feasible.

## CLIMATE PROTECTION PAYS OFF FOR SCHOOLS



Some of the revenues from emissions trading are used for a special climate protection action programme for schools and educational establishments.

This sector holds enormous potential for climate protection and cost saving through

concrete investment, for example in lighting systems.

Educational establishments are important partners of the National Climate Initiative for another reason, in particular with a view to long-term effects. Each and every one of us can help to save energy by changing our behaviour. Where better to generate awareness for climate protection than in schools and other educational establishments?

This is why the National Climate Initiative promotes specific actions which support educational establishments in improving knowledge of climate protection. This includes teaching aids and materials, teacher training, model projects, climate action days and many other projects.

### Climate protection in practice: climate action days

With its "Aktion Klima!" programme, the National Climate Initiative funds climate action days in 1,000 schools. In addition to financial support of up to 500 euros, participating schools receive a „climate box“ containing a number of measuring instruments (e.g. for determining energy consumption, light intensity and water flow) as well as many accompanying materials. This raises the pupils' awareness and gives them a hands-on understanding of what they can do for climate protection.

## **OTHER PROGRAMMES FUNDED FROM EMISSIONS TRADING REVENUES:**

### **Market incentive programme for renewable energies:**

A large part of the revenues from emissions trading is allocated to the Market Incentive Programme. This programme supports installations for the use of renewable energies with grants and low-interest loans. The focus is on installations which generate heat.

### **Environmental innovation programme:**

Revenues from emissions trading are also used for the Environmental Innovation Programme. This programme supports large-scale demonstration projects which show how new technologies can improve climate and environmental protection in practice.

### **Support programme for the energy-related use of biomass:**

Sustainable biomass use is a key element of climate protection in Germany. The Federal Environment Ministry therefore supports pilot and demonstration projects which contribute to a climate-friendly generation of electricity, heat and fuels from biomass.

## **THE INTERNATIONAL CLIMATE INITIATIVE:**

With its International Climate Initiative the German government supports projects throughout the world on low-carbon economy, adaptation to climate change and the conservation of biological diversity. The main focus is on developing and newly industrialising countries, and the transition countries of Central and Eastern Europe.

[www.bmu-klimaschutzinitiative.de/international](http://www.bmu-klimaschutzinitiative.de/international)

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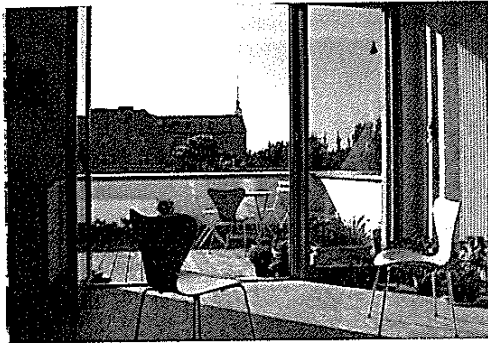
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## Klimafreundliches Bauen und Wohnen



**Wohnen auf dem Mauerstreifen  
Bernauer Straße 8, Berlin Mitte**

**SDU Architekten und Energieberater**

**Bauherr:**

Carola Sigel und Franco Dubbers

**Architekten:**

SDU Architekten und Energieberater

**Tragwerk:**

Ingenieurbüro Günther Reiche

**TGA-Planung:**

Büro für neue Energietechnik Naimer

Das Haus wurde als eines von 16 städtischen Reihenhäusern auf einem ehemaligen Mauergrundstück in der Bernauer Straße errichtet. Die Situation des Hauses ist geprägt durch die unmittelbare Nähe des ehemaligen Todesstreifens an der Bernauer Straße. Direkt vor dem Haus entsteht hier die Erinnerungslandschaft der Mauergedenkstätte.

Das Haus reagiert auf diese Situation mit einer städtebaulich zurückhaltenden Lochfassade. Diese zieht sich um die Ecke in den dicht bebauten Innenraum und wirkt hier als trennendes Element zwischen öffentli-

chem und privatem Raum. Erst im obersten Geschoss öffnet sich das Haus mit einem großen Fenster nach Südwesten und – von außen fast unbemerkt – auf die große Terrasse nach Süden.

Das Haus entspricht dem KFW-40-Energiestandard. Der Primärenergiebedarf liegt bei nur 27 kWh/m<sup>2</sup>a und unterschreitet die gesetzlichen Anforderungen um 72 Prozent. Der spezifische Transmissionswärmeverlust liegt bei nur 0,33 W/m<sup>2</sup>K. Das Gebäude ist mit recycelbarer Mineralschaumdämmung gedämmt. Durch Platzierung des Hauptwohnraums im obersten Geschoss mit Ausrichtung nach Süden wird die solare Wärme optimal genutzt.

Die Energieversorgung erfolgt durch eine annähernd CO<sub>2</sub>-neutrale Holzpellettheizung, die durch eine Solarwärmanlage unterstützt wird. Die Stromversorgung erfolgt durch die Elektrizitätswerke Schönau aus erneuerbarer und atomkraftfreier Produktion. Es kommen konsequent stromsparende Geräte und Leuchtmittel zum Einsatz.

Auch ansonsten wurde auf ökologische Bauweise geachtet. So wird das Regenwasser auf dem Grundstück versickert. Das Gründach beeinflusst das Stadtklima positiv.

## Climate-friendly construction and living

**Living on the Former Site  
of the Berlin Wall**  
Bernauer Straße 8, Berlin Mitte

**SDU architects and energy consultants**

**Builder:**

Carola Sigel and Franco Dubbers

**Architects:**

SDU architects and energy consultants

**Supporting structure:**

Günther Reiche engineering office

**BSE planning:**

Naimer office for new energy technology

The house was one of 16 urban terraced houses built on a plot of land where the Berlin Wall once stood in Bernauer Straße. The location of the house is dominated by the close proximity of the former death strip at Bernauer Straße. The landscape of the Berlin Wall Memorial was built directly in front of the house.

The house responds to this situation with a restrained urban perforated facade. This runs around the corner in the densely built interior and acts here as a dividing element between public and private space. On the top floor, the house has a large window that faces the southwest – that is almost unnoticed from the outside – on the large terrace facing south.

The house complies with the KFW 40 energy standard. The primary energy requirement is only 27 kWh/m<sup>2</sup> a and is 72 percent lower than the statutory specification. The specific transmission heat loss is only 0.33 W/m<sup>2</sup> K. The building is insulated



with recyclable mineral foam. By placing the main living space on the top floor that faces south, solar heat is optimally used.

Energy is supplied by an almost CO<sub>2</sub>-neutral wood pellet heating system that is supported by a solar heating system. Electricity is supplied by the Schönau power plant. Low-power appliances and lighting are used consistently.

Furthermore, the requirements for ecological construction were observed. Rainwater seeps away on the property. The green roof has a positive influence on the urban climate.