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**Occasional Paper**

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**Local Climate Protection in the  
Federal Republic of Germany**

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Local climate protection, local climate policy - can this become effective?

There is no environmental problem which calls for a more global perspective than the climate problem. Energy-induced CO<sub>2</sub> emissions are the main sources of the global man-made greenhouse effect.

The detrimental consequences we will face with certainty are - inter alia - an increase in temperature, a rising sea level, desertification and bad harvests. These are of global importance.

Consequently, there is no environmental problem which requires global answers to the same degree as the climate problem. The signing of the climate convention during the UN Conference on Environment and Development in Rio (1992) was a big step towards a global climate policy. The 1st. Conference of Signatory States in Berlin (1995) - the so-called Berlin Climate Summit - prepared further steps.

With this in mind, I will try to assess the range of possible actions, the competences and powers of German municipalities.

My **first thesis** is: Though the problem is without doubt a global one, local climate policy is not inadequate. Quite the contrary: in this policy field, too, the success of international conventions and of national policies is dependent on supporting local action.

And - this is my **second thesis** - in Germany, a federal republic with strong local self-government, such local action is not merely implementation and concretization of state legal norms. There must also be a voluntary search for and definition of tasks by local self-governing authorities.

During the world-wide discussion on the interdependence of economic, social and ecological trends, the UN Conference stressed in chapter 28 of the "Agenda 21" the vital role of local authorities in the implementation of preventive environmental policies. Hence, more and more local authorities

started to elaborate a "Local Agenda 21" in which the new task of local climate protection gained a central place.

Today, local climate protection activities in Germany concentrate mainly on energy questions. They follow a certain tradition of local energy policy. The oil price crises of 1973 and 1979 forced German urban and rural authorities to look for energy saving measures in public buildings for economic reasons. During the 80s, the debate on future energy supplies turned more and more to environmental considerations. In contrast to traditional concepts of energy supplies, many local authorities developed concepts of energy saving, which included measures to reduce energy demand. Municipalities that started innovative projects at that period, like Flensburg, Rottweil, Saarbrücken or Stuttgart, collected considerable experience on local measures in the energy sector. Their actual CO<sub>2</sub> reduction programmes are based on these more traditional energy saving concepts.

In both cases local energy management is of central importance. The municipality acts as a rational consumer

- by improving energy efficiency in public buildings through improved heat insulation or advanced heating or control technologies, or
- by power saving by optimising street lighting or installing power saving bulbs in public buildings, or
- by changing consumer behaviour: A project in the city of Hanover, for instance, enforces energy saving in schools by placing 30 percent of savings at the disposal of the individual school.

Successful local energy management has not only been introduced in many big cities; medium-sized towns like Beckum, Celle or Ludwigsburg are also very active.

A main area of municipal action is to supply energy. In cooperation with local and regional utilities, local authorities are shifting to a more environmentally sound supply structure

- by enlarging natural gas or district heating networks,
- by switching from coal to gas as primary energy source,
- by introducing power-heat co-generation systems,
- by increased use of regenerative and local energy sources.

By all those measures local authorities improve their CO<sub>2</sub> balance by innovative actions as consumers or suppliers.

As a side effect, these activities might induce some private action, too. But local authorities should also take additional effective steps towards an economic use of heat and power in different private sectors like households or commercial and industrial enterprises, e.g.

- by distributing information on climate-related questions through public relations activities; examples are the energy saving week in Leipzig or the Dresden climate protection report,
- by professional advice in local energy information centres, or
- by financial support programmes for private investments such as those of

Munich or Nuremberg.

**Thesis 3:**

Local climate policy should go beyond the boundaries of energy production and consumption to influence other areas of policy-making.

Little is known of the contribution a modern waste or waste water management may make to climate protection by reducing waste or using refuse gas.

But without any doubt local transport policy is of outstanding relevance. The well-known sequence of transport policy goals is still valid from a climate-protection point of view:

primarily to reduce unnecessary transportation,  
then to shift traffic flows from the individual use of motor-vehicles to walking, cycling and public transport by a combination of pull and push factors,  
thirdly to promote low emission vehicles and  
finally to influence vehicle use and traffic speed in an emission-oriented manner.

The claim for transportation reduction often lacks clear and consistent programmes for action, but there are close links with urban planning concepts like the "Compact City" or "mixture of functions". In Germany the first model projects for car-free neighbourhoods are under way. Municipalities may enforce energy saving by their instruments of traditional land use planning or comprehensive city planning: examples are the orientation of buildings to the sun, or the increase in green spaces, even on roofs or facades.

In sum, there is a great variety of local instruments with which municipalities may reduce energy consumption and CO<sub>2</sub> emissions, directly or at least indirectly.

But one should not be over - optimistic: climate-oriented goals will not pass through the local decision-making process unchanged or unreduced. Often there is a fundamental conflict with traditional goals of the different divisions and agencies of local administration. Differing interests then have to be balanced and coordinated.

This will become clearer if one examines the field of local politics, councillors, citizens, enterprises, interest groups and associations. A lot of educational work in favour of climate protection still has to be done, but we should not deceive ourselves:

**Thesis 4:**

Information and explanation are not sufficient. Local partners must be won by the proof of the local and private advantages offered by climate policy.

We can and have to show that our climate protection activities are not merely microscopic contributions to the world's CO<sub>2</sub> balance but have perceptible positive local effects:

In the energy sector action diminishes classical pollutants like NO<sub>x</sub>, ozone and dust, and is therefore a direct investment in public health, in the transport sector it contributes to noise reduction and road safety, green cities have a better urban climate, last but not least - energy saving investment in buildings is profitable for local, often small and medium-sized enterprises and contributes to local employment.

### **Thesis 5:**

Local persuasion efforts are facilitated mainly by the following three factors:

- a) economic advantages of the measures,
  - b) enforcing state regulations and
  - c) consistent and motivating programmes.
- a) During the present phase of local fiscal stress, many voluntary local activities have been stopped, e.g. local energy information centres have been closed. The whole range of modern methodology has to be activated to combat short-sighted and actually wrong calculations, e.g. the fallacy that publicly owned power suppliers should try to maximize power consumption in order to maximize their profits and hence their contribution to the local budget. By so-called least cost planning studies it is shown that maximization of sales is not a rational goal, not even in purely economic terms.

For several years cities like Dortmund have engaged private enterprises on a contract basis to supply energy to public buildings, and have gained remarkable reductions in energy expenditures. The energy management office of the city of Stuttgart, costing 4 million DM in 1992, estimates its contribution to expenditure reduction at 22 million DM, a ratio of 1 to 5. And induced CO<sub>2</sub> reduction was estimated to be more than 50 percent.

- b) In local climate policy federal and state legislation and regulation play an important role. For various reasons many favourable conditions have hitherto been lacking:

Local authorities lack money due to imperfections in federal revenue sharing.

Legal regulations impede the dissemination of heat-power co-production and of heat insulation standards for private buildings.

Income taxation favours the use of cars in commuting and there are no standards for maximum gas consumption of vehicles. The increase in transport volume will compensate for many tiny successes which are gained in other fields of climate policy.

This incomplete list of problems shows that many improvements in supranational, federal and state policies are necessary to make sure that Germany's local authorities ca. do their best to comprehensive climate protection. Without these improvements the declared targets of federal climate policy will prove unrealistic.

- c): Finally, it is important that local authorities design and implement a consistent climate protection programme with realistic goals.

International networks of local authorities have played a vital role in self-binding decision-making on quantitative targets and in the national and international exchange on best practices. Many of the active German towns and cities are members of the Climate Alliance or of ICLEI, the International Council of Local Environmental Initiatives.

In Germany around 300 municipalities show an above-average activity in climate protection, mainly large and medium-sized towns and cities, but smaller municipalities should join the movement. Their more transparent local structures are helpful for effective local action.

The German Institute of Urban Affairs is the biggest research and service institution in urban studies in Germany. It works in close cooperation with the German Association of Towns and Cities and with individual cities, since 1992 also in the field of climate protection. On behalf of the Federal Ministry for the Environment it produced a report on "Local Authority Climate Protection in the Federal Republic of Germany" for the Berlin Climate Summit in 1995. It is about to complete a "Guidebook on Local Programmes for CO<sub>2</sub> Reduction" with methodological advice and many successful local practices.

#### **Thesis 6:**

Nothing is more convincing in local political debate than reference to the experience of other local authorities, than reference to the flexibility, efficiency and effectiveness of proposed measures. Therefore, inter-communal exchange of experience has a central function for local climate policies in the world.