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# **OPTIMIZING CLIMATE PROTECTION STRATEGIES OF LOCAL AUTHORITIES IN EUROPE**

## **SUMMARY FINAL REPORT**

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## I. OBJECTIVES

The objective of the project was to evaluate and improve the role of European local authorities in climate protection.

The main goals were the following:

- Stock-taking of climate protection strategies and implementation measures of local authorities in different European countries.
- Analysis of national framework conditions for local climate protection in the energy and transport sector.
- Analysis and evaluation of the local authorities policies with respect to the integration of climate protection policies/measures in sectoral policies (planning, energy and transport) taking into account national framework conditions.
- Identification of “best practice” examples and relating them to their regional and national background.
- Identification of bottlenecks due to national legal, political, socio-economical and cultural framework conditions. Elaboration of suggestions for improving the framework conditions by national and EU regulation.
- Improvement of the local climate protection strategies and of the mix of implementation instruments with respect to effectiveness, cost-effectiveness and overall economical, social and cultural implications. Development of a systematic and optimised catalogue of local CO<sub>2</sub> reduction measures.
- Elaboration of practical guidelines for local authorities in order to support both the dissemination of CO<sub>2</sub> reduction technologies and the implementation of non-technical CO<sub>2</sub> reduction measures. Preparation of a climate protection working book which is to be valid and useful for European local authorities.

## II. METHODOLOGY

The investigations were carried out in four European countries (Austria, Germany, the Netherlands and Italy) providing a good cross-section of the variety of Western European countries in terms of geography, climate, socio-cultural preconditions, national climate protection policy and energy industry structure. Thus the results can be expected to be transferable to other European countries to a large extent.

### 1) Analysis of national framework conditions

The first part of the investigation focusing on national framework conditions, was to illustrate the national context in which local authorities decide and implement their climate protection policies. Framework conditions, as we define them, are above all, the distribution of responsibilities between different political levels, legal framework conditions, the national climate protection strategy, and in addition the structure of energy supply and consumption and the organisation of the energy and transportation sector. Framework conditions define the possibilities for, and limits of, municipal climate protection strategies and measures.

### 2) Survey of municipal CO<sub>2</sub> reduction activities

The core part of the research was to provide a stock-taking and evaluation of local climate protection policies based on a questionnaire. In each of the four investigated countries 15 to 20 municipalities were invited to participate in the project by filling in the questionnaires. The main part of the questionnaire was a catalogue of a total of 73 climate protection measures in all relevant areas for municipal policies in the fields of energy, transport and urban planning. The catalogue of measures included “model” measures detailed in a checklist containing implementation steps or instruments. It was intended to serve as a guideline for the description of activities carried out by the participating municipalities. For each measure a short description had to be given as well as several important characteristics like the responsible department, cooperating utilities or institutions, the total budget and the annual budget available. There was room for comments on problems and their solutions as well as on supporting circumstances connected with the decision to implement a measure and the implementation itself. Furthermore an evaluation of the measure and its impacts was requested in qualitative terms, namely the reduction potential and the cost efficiency with regard to CO<sub>2</sub> emissions, the ecological, economic and social side effects and the feasibility of the measure. These were assessed according to five grades ranging from very positive to very negative.

Furthermore the questionnaire was intended to have a certain educational aspect: the full catalogue of measures was to present the range of CO<sub>2</sub> reduction measures municipalities have at their disposal in principle. In addition the team expected to get hints for the conception of the climate protection working book from the feed-back on the questionnaire.

### 3) In-depth-analysis of selected municipalities

The aim of the third part of the research was to throw light on the connection between CO<sub>2</sub> reduction activities of the municipalities, their administrative structures, their budgets and their socio-economic background. Therefore,

an in-depth analysis was carried out in selected cities in each country (three cities in Italy and Austria, two in Germany and The Netherlands). The collection of information was based on different actions in the administration of the municipality and its social context. The analysis within the administration consisted of the following elements: a more detailed analysis of the administrative structures, the analysis of the municipal budget as well as the description of successfully realised measures. The social context was investigated with a series of qualitative and semi-open interviews, using a fixed framework of questions. The interviewed persons were representatives of political parties, trade unions, chambers of commerce, local journalists, environmental organisations and local utilities.

#### **4) International comparison of framework conditions and activities of local authorities**

An international comparison of framework conditions and of the climate protection activities of local authorities was done in order to identify municipal climate protection measures which can be applied in all of the investigated, and hence in most, European countries.

The second intention of this analysis was to identify the hindering and supporting circumstances for municipal climate protection activities on the local, regional, national or even European level.

#### **5) Conclusions and Recommendations**

Finally the discussion of the results led to recommendations on how to improve municipalities climate protection policies and their framework conditions. The need for action on the local, national and European level was assessed. Practical guidelines for local authorities in order to support the dissemination of CO<sub>2</sub> reduction technologies and the implementation of non-technical CO<sub>2</sub> reduction measures were elaborated, resulting in a draft version of the working book.

### **III MAIN RESULTS**

The existence of considerable CO<sub>2</sub> reduction potentials, which can be exploited in principle by activities conducted or stimulated by local authorities, was an underlying assumption of this project. Thus the project focused on policies and implementation instruments to realise those potentials, whether they are based on technologies, on structural changes or on behaviour. Priority areas examined in this project were energy conservation in space heating and electricity sector, district heating and cogeneration, utilisation of renewable energies and reduction of motorised traffic. With regard to the objectives mentioned above, the main results can be summarised as follows:

#### **1) Possibilities and limits for municipal climate protection**

In all four countries investigated, the Constitution guarantees the municipality a certain autonomy and own areas of responsibility. In any case the municipalities are responsible for their own buildings and facilities, they can conduct public relations activities (depending on their financial state) and they can develop climate protection concepts. In all investigated countries, municipalities are influential in the fields of regional construction and traffic planning. Cities and towns, above some minimal number of inhabitants, will usually be responsible for public transportation systems. The possibilities of municipalities to take actions in the electricity sector depends very much on the existence of municipal electric utilities, which are common in German cities, exist in some Austrian cities, but are nearly absent in Italy and The Netherlands. The possibility of municipalities to promote energy efficiency or emissions reducing technologies with subsidies depends very much on their financial circumstances. In any case, the possibilities and limits of municipalities for successful climate protection strategies in many cases are not entirely laid down. Since climate protection is a new policy challenge, many details of municipal responsibilities are not entirely clear, thus the scope of municipal climate protection measures also depends on the creativity of local authorities to cope with the existing legal, political and administrative preconditions.

#### **2) International comparison of the climate protection activities of local authorities**

The following survey on municipal climate protection activities was a result of the evaluation of the returned questionnaires:

- Generally the degree of activity was higher in the transport sector than in the energy sector in all investigated countries. All countries lagged behind in the electricity sector and in the use of renewable energy. Especially the field of action "Public awareness campaigns" presented a rather disappointing level of activity, although this is the ideal field for municipalities to compensate successfully the lack of competences in other sectors. The same could be noticed for CO<sub>2</sub> reduction activities in municipal facilities.
- A lack of competence and of financial means/staff were the most frequently mentioned obstacles. Concerning the lack of financial means, both a general lack of budgets in the municipalities and a low priority for climate protection policies was relevant. A further noteworthy point was that the general pattern of obstacles is rather

similar in the various countries. However, some national characteristics can be identified: a lack of information for Italy, lack of competences for Austria and The Netherlands, and lack of funds, as well as a certain difficulty in pushing the actions through, for Germany.

In general, most of the municipalities felt that the measures given by the questionnaire could be useful, but less feel responsible for the implementation of these measures.

### **3) Optimised climate protection strategies: advice for local authorities**

The results suggested the following strategy, if a municipality is starting to deal with global warming abatement:

- Implementation of measures with no, or at least, no important obstacles, as well as of concrete measures in order to have some relatively rapid feeling of “success”. One important field of activity to start with is CO<sub>2</sub> reduction in municipal facilities.
- Elaboration of a coordinated municipal climate protection action concept, which should contain at least a *status quo* analysis of the energy sector and the transport situation, the determination of CO<sub>2</sub> reduction potentials, the formulation of scenarios and the formulation of implementation strategies and measures for the energy and the transportation sector. On the basis of these actions, priorities and strategies of climate protection should be developed.
- Development of “win-win” strategies in order to overcome obstacles related to measures of significant long-term CO<sub>2</sub> reduction potential, which are often characterised by different interests and are influenced by strong pressure groups.
- The formal institutional commitment to some CO<sub>2</sub> reduction target and general climate protection targets - for which a public consensus usually can relatively easily be reached - in order to weaken the position of individual pressure groups.
- The strategy of “multiple objective approach” (combination of climate protection with other targets) in order to remove obstacles against climate protection measures.
- Development of new cooperation types, including the field of public participation, and new cooperation models with other municipalities and other administrative levels with the aim of improving planning processes and consequently, increasing the feasibility of many measures.
- Periodical evaluations of the implementation of climate protection measures and reporting systems for the CO<sub>2</sub> reductions achieved.

### **4) Recommendations for action on the local, national and European level**

On the local level, political commitments to climate protection should be followed by creating competences for climate protection within the local authority and an action programme with clear aims should be drawn up. There is also an urgent need for better control and evaluation of municipal climate protection activities and for the development of instruments allowing for a cost-benefit analysis including all relevant ecological, economical and social criteria. Regarding concrete climate protection activities, the priority fields presently not sufficiently covered are energy management and energy conservation investments in municipal facilities as well as all activities concerning communication, public relations and education, particularly in the transport sector.

Local and regional utilities are important cooperation partners in local climate protection. Utilities are used to have the required technical know-how, they are in contact with consumers, and furthermore they often have more investment capital at their disposal than municipalities. Thus municipalities should use their influence on utilities in order to commit them to their own climate protection goals, and cooperate with them in the implementation of measures. Another important partner for local authorities are NGOs or local initiatives. Often they are experts in certain environmental fields and in public relation work as well. Municipalities should establish working groups or joint institutions together with NGOs, in order to make use of their skills and increase the acceptance of municipal activities. Finally, another important cooperation partner are other municipalities. Municipalities in the same region should carry out concrete measures jointly and exchange their experience for an efficient implementation of a local climate protection policy. The financial situation of municipalities must be improved, in order to be able to commit themselves to long-term policies and tasks in environmental protection. A decoupling of municipalities budgets and income from local trade taxes or the like should be considered, in order to avoid conflicts of aims between a sustainable city development and short-term economic considerations. Additionally innovative financing models can be developed, and regional agencies must be established which have the provisions and know-how to offer consulting and contracting services to municipalities.

At the national level, as a first and absolute priority, CO<sub>2</sub> reduction needs to become a strategic objective of governments, with precise and stricter commitments, within an internationally-agreed framework. Coherent national climate protection programmes, including all relevant sectors, should be drawn up. In order to draw up and implement these programmes, an open discussion group should be established consisting of representatives of enterprises, national, provincial and municipal administrations, politicians, NGOs and the scientific

community. Particularly in those countries, where various political and administrative levels are involved in decision-making and environmental administration, the distribution of competences between these levels should be discussed, in order to achieve an anchoring of competences at the adequate level of administration.

The legal framework on the national level should be reshaped in order to allow an effective implementation of climate protection policies at all levels. Both legal and fiscal provisions like taxation and subsidies should be revised with the goal of setting a course not only for climate protection, but furthermore towards a sustainable development. In the transport sector, fiscal and regulative instruments have to be urgently implemented: hidden or open subsidies for motorised transport should be abolished and, instead, provisions to put a fee on traffic generation should be considered. Furthermore, oil taxes should be increased stepwise and foreseeable.

At the European level, crucial elements of a climate protection strategy, such as the long debated energy/CO<sub>2</sub> tax, have until now failed to be put into practice. In the light of the modest results of the first Conference of Parties in Berlin 1995, the industrialised countries, and particularly Western Europe, must take a leading role and proceed with a determined climate protection action programme. The pursued internal market programme still contains proposals which aim at short-term economic optimisation - i.e. low energy prices - and do not give adequate consideration to ecological consequences of energy consumption. Hence, such regulations must at least be complemented by regulations which ensure a preferential treatment for environmentally benign options - efficiency, cogeneration and renewables. The proposal on a directive on Integrated Resource Planning must be therefore strongly supported. Furthermore European-wide environmental and efficiency standards should be introduced in the form of a framework within which special national or regional features can be taken into account. The distribution of EU research and investment funds is currently quite biased towards options that cannot provide any contribution to climate protection, so that the funds must be fundamentally restructured. Ongoing programmes must be consistently oriented towards environmental criteria.

In the transport sector, a better interconnectivity of railway systems in Europe is crucial, in order to increase the attractiveness of this option. Here, the EU as a supranational body should play a major role in initiating and coordinating national activities. Financial support by the Transeuropean Networks funding instrument should be restructured in order to direct them to the promotion of the Europe-wide development of public transport.

Finally, the upcoming revision of the European Treaties should be used as a chance to check the energy relevant provisions in the treaties in order to adapt them or amend them according to the needs of an integrated climate protection policy.

##### **5) Elaboration of a working book**

A main result of the project was the elaboration of a “working book on municipal climate protection”. This working book is not a “perfect” and self-contained product, but has to be seen as an elaborated concept intended to support municipalities in Europe in their efforts for global warming abatement. At the national level, manuals for municipal climate protection are being developed in Germany and Austria, and the current working book is not intended to compete with them, but rather to complement and offer advice on internationally recommendable strategies and robust measures.

The working book is structured as follows:

The introduction presents general reflections on the urgency of CO<sub>2</sub> reduction activities, the role of the international, national and local level in climate protection as well as the scope of present activities, obstacles towards more far-reaching measures and the necessity and feasibility of further action. The second part presents valuable information on the different types of Third-Party-Financing and contracting schemes as well as some general schemes on financing/funding and examples for concrete implementations in different European countries. The main part of the working book consists of the revised catalogue of measures, including checklists of implementation instruments. The working book is completed by a comprehensive list of addresses and literature.

#### **IV SCIENTIFIC INTEREST AND POLICY RELEVANCE**

##### **1) Scientific interest and novelty**

The research has shown that even though there are several surveys in this field presently done at the national level, there is no such project at a European level which goes so deeply into details. Several scientists have expressed their interest in using this project’s approach, particularly the matrix of climate protection measures, to do similar research in other European countries.

Most recommendations for local climate protection action programmes being focused on the national or regional situation gave some very valuable insight at the international level.

Moreover the questionnaire has increased the interest of the municipalities in the results of the project .

**2) Policy relevance**

One of the main objectives of the project was the development of optimised climate protection strategies of local authorities. The results of the analysis was a concrete catalogue of advice for municipalities starting with global warming abatement. As climate protection is a new policy challenge, where details about responsibilities and competences on the different levels are not entirely clear, it was another main project objective to identify implications for climate protection policy at the local, national and European levels.