



The European Environmental Bureau (EEB)  
The European Federation for Transport and Environment (T&E)  
The Swedish NGO Secretariat on Acid Rain

## Position paper on the Thematic Strategy on Air Pollution

### Comments to the communication from the European Commission on the Thematic Strategy on Air Pollution (COM(2005) 446 final)

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The damage to human health and the environment caused by air pollutants constitutes one of the most serious environmental problems in Europe, and urgent action for reducing the emissions is necessary. In this context, we welcome the Commission's Thematic Strategy on Air Pollution.

In brief, our main points of criticism are:

- the unjustified very low level of ambition regarding the protection of health and environment – this must be raised, which in turn will require more far-reaching emission cuts than currently foreseen;
- the lack of specific elaborated proposals for further emission reductions; and,
- the failure to show how the objectives of the Sixth Environment Action Programme could be attained by 2020.

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Current levels of air pollution cause severe health impacts in the European Union, resulting in some 370,000 premature deaths each year, increased hospital admissions, extra medication, and millions of lost working days. Additionally, there is widespread and significant damage to ecosystems, agricultural crops, modern materials, and the cultural heritage. The annual cost to society of health impacts alone from fine particles and ozone for the year 2000 has been estimated at between 276 and 790 billion euro, equivalent to about 3-9 % of the EU25 GDP.

Consequently, action to reduce emissions of some of the main harmful air pollutants - sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOCs), ammonia (NH<sub>3</sub>), and primary fine particles (PM) will bring great benefits to health and the environment.

The ambition level set by the Thematic Strategy on air pollution is supposed to be highly determinative for the forthcoming revision of the NEC-directive, which in turn is vital to achieve the very significant benefits that are necessary both for health and the environment.

#### **The level of ambition must be raised**

The objective of the Community's environmental policy is to protect people's health and the environment, and EU's long-term environmental quality objectives in relation to air pollution, as given in the Sixth Environmental Action Programme (6EAP), are to achieve levels of air quality that do not give rise to significant negative impacts on and risks to human health and the

environment, and to reach no-exceedence of critical loads and levels for acidification, eutrophication and ground-level ozone.

Article 4 of the 6EAP makes clear that thematic strategies should include an identification of the proposals that are required *to reach the objectives*. The level of ambition set for 2020 in the Thematic Strategy on Air Pollution is however far from attaining the objectives of the 6EAP.

**It is both necessary and cost-effective to significantly raise the level of ambition as compared to that of the Thematic Strategy, and there are three main reasons for this:**

1. Health and environmental objectives will not be attained

From the analysis – which is presented in the Commission’s Impact Assessment and in consultancy reports to the CAFE programme – it is clear that with emission reductions in line with the strategy’s level of ambition, significant negative impacts will persist.

Even after implementing the strategy, by 2020 millions of EU citizens will still be exposed to health-damaging levels of fine particles and ozone – these pollutants will still cause some 230,000 premature deaths every year. Similarly, several hundred thousand square kilometres of sensitive ecosystems will still be receiving acidifying and eutrophying deposits in excess of the critical loads, as well as being exposed to ozone in excess of the critical levels for protection of forests and other vegetation. This means that for ozone more than 50 %, and for eutrophication over 30 %, of the EU’s ecosystem area will remain unprotected in the year 2020.

The overarching aim of the strategy is to show how the objectives of the 6EAP can be met and to propose appropriate measures to meet them. The Commission concluded that even when simulating maximum technically feasible reductions by applying the so-called MTFR-scenario, it was not possible to attain the objectives of the 6EAP. As described below, however, there were severe limitations to the analysis, primarily in that it does not fully account for the emission reduction potential from structural measures and from a coherent climate policy.

**It is a major shortcoming of the Thematic Strategy that it has failed to show how the long-term objectives of the 6EAP could be attained by 2020.**

2. Costs are overestimated and the emission reduction potential is underestimated

The incremental cost of the Thematic Strategy has been estimated to 7.1 billion per year in 2020. While this figure may appear high, if spread over the population it represents an additional annual cost of less than euro 16 per person. Moreover, it is obvious that this figure, which represents less than 0.05 % of the EU25 GDP in 2020, is an overestimate:

- Firstly, the cost estimates were based on the application of technical abatement measures only, and did not account for additional structural measures - such as switching fuels, early introduction of cleaner techniques, increasing energy efficiency, greater use of alternative energy sources and changes in the transportation and agricultural sectors. These measures could reduce emissions more and at much lower cost as compared to relying solely on technical “end-of-pipe” solutions.

- Secondly, the performance of the technical abatement measures was based on the current situation, i.e. technical developments and improvements have not been accounted for.

- Thirdly, measures for reducing emissions from international shipping were not included in the optimisation analysis, even though it is generally accepted that such measures are both necessary and much more cost-effective than many additional measures on land-based sources.

- Fourthly, the baseline scenario – which is the starting point for optimisation and supposed to reflect full implementation of existing EU regulations – failed to include implementation of some important EU legislation, for example the NEC-directive and the air quality limit values. Similarly, for agriculture, the impact of the Common Agriculture Policy reform or the implementation of the nitrate and IPPC directives were not accounted for.

- Fifthly, the underlying energy scenario assumed a reduction in EU25 emissions of the major greenhouse gas CO<sub>2</sub> of only 3.6 % between 1990 and 2020, which is contradictory to the EU's commitment to reduce greenhouse gas emissions. In March 2005, the EU Heads of State agreed a target to reduce overall emissions of greenhouse gases by 15-30 % by 2020. Measures for reducing CO<sub>2</sub>-emissions will in general also reduce emissions of SO<sub>2</sub>, NO<sub>x</sub>, and PM, and applying a “lower-CO<sub>2</sub>” energy scenario would therefore reduce the estimated costs for additional emission reductions.

**These shortcomings of the analysis are of major importance, because the combined result of overestimating the costs of attaining various targets and underestimating the real potential for emission reductions gives a false impression that ambitious environmental targets are very costly or even “unattainable”, which leads to a general lowering of the level of ambition of the strategy.**

### 3. Benefits outweigh by far the costs

As part of the CAFE programme, the Commission investigated the costs and benefits of several scenarios with various levels of ambition. As described above, the methodology applied results in a marked overestimate of the costs. Moreover, as not all of the benefits can be quantified in monetary terms, comparisons between the monetised costs and benefits are clearly distorted.

In spite of this distortion, the economically quantifiable health gains of the Thematic Strategy have been estimated to range from euro 42 to 135 billion in the year 2020, i.e. up to 20 times higher than the (over)estimated costs. Even for the most ambitious of the scenarios investigated, the so-called MTRF-scenario, the benefits still outweigh the costs by 1.4 to 4.5 times.

When it comes to the incremental (marginal) costs and benefits of the various scenarios analyzed, the Commission concludes in its Impact Assessment to the strategy that even for Scenario C – which was the most ambitious policy scenario analyzed – there is a high probability of excess benefit.

Among the benefits *not* included in any of the above figures and comparisons are less acidification of soil and waters, less eutrophication, fewer effects on biological diversity, less long-term effect on forest productivity, and less damage to the cultural heritage.

## **Specific proposals for further emission reduction measures are delayed or lacking**

Article 4 of the 6EAP makes clear that the thematic strategies should include an identification of the proposals that are required to reach the objectives, and also the procedures foreseen for their adoption. Consequently, the Thematic Strategy on Air Pollution was expected to be accompanied by a series of specific proposals for further emission reductions.

- A proposal for revision of the NEC-directive was originally expected to be presented at the same time as the strategy, but according to the Commission this proposal is now foreseen by summer 2007.

- New road vehicle emission standards are necessary for attainment of environmental quality targets and should therefore be an integral part of the strategy. The Commission presented in December 2005 its proposal for new passenger cars and commercial light duty vehicle (Euro 5-standards) – a proposal that needs strengthening regarding the PM and NO<sub>x</sub> limit values. A proposal for new heavy duty vehicle standards has still not been presented, even though further emission reductions from these vehicles are of vital importance.

- In the strategy, the Commission declares its intention to come forward with proposals regarding small combustion plants and VOC-emissions from fuel stations. A series of possible additional measures in the energy, transport, and agriculture sectors are being discussed – but no elaborated proposals presented. Moreover, the Commission states that it has no intention to propose stricter standards for large combustion plants.

- Emissions from international shipping are a serious and growing concern – under current projections ships' emissions of SO<sub>2</sub> and NO<sub>x</sub> are expected to exceed those from all land-based sources in EU by 2020. Again, some possible measures are discussed in the strategy, but no elaborated proposals presented.

**It is a major shortcoming that the Thematic Strategy was not accompanied by any specific elaborated proposals for further reducing the emissions of air pollutants.**

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### **For more information:**

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See also: **The CAFE programme and the thematic strategy on air pollution**, Environmental Fact sheet No. 19, January 2006.

<http://www.acidrain.org/pages/publications/factsheet/factsheet19.htm>