

## **CAFE REFERENCE DOCUMENT**

### **STAKEHOLDER INVOLVEMENT IN THE DEVELOPMENT OF THE CAFE BASELINE SCENARIO**

#### **UPDATED, FINAL VERSION**

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## **1. PURPOSE OF THIS NOTE**

The purpose of this note is to describe how the stakeholder consultation for the development of the CAFE baseline scenario is planned to take place. It should be read in conjunction with the note *“Wisdom starts from facing the facts: Construction of the baseline in CAFE”* which was discussed in the CAFE Steering Group on 11-12 December 2001.

The note gives a brief outline of the main elements of the development of the baseline (Section 2 and Annex 1) as well as the objective of the consultation, the definition of stakeholders and an outline of the main tasks during the consultation (Section 3). Further, it outlines the timeline for stakeholder consultations as well as a technical review of the Integrated Assessment Model (IAM) that has been selected for the CAFE programme (Section 4). Finally, some information on the links between the development of the CAFE baseline scenario and the similar work carried out by the EEA and UNECE is given (Section 5). This note reflects discussions of the CAFE Steering Group on 12 September 2002 and of the Kick-off Meeting between the Commissions Services and the consultants for the development of the CAFE Baseline Scenario on 13 September 2002.

It should be noted that in the process of constructing the baseline, it is likely to be necessary to construct a number of *variant* scenarios. The term “baseline scenario” refers to the scenario that will be used as the basis for integrated assessment modelling of the policy options. Following the discussion in the SG in December 2001 the baseline scenario is to reflect compliance of all existing national and EU wide legislation. However, this issue would most likely be re-examined during the actual development of the baseline.

## **2. BACKGROUND**

In the context of the Clean Air for Europe (CAFE) programme, the baseline scenario and the variant scenarios will be necessary in order to understand how the air quality in Europe may evolve between now and 2020 on the basis of current policies and measures. It will help to determine the extent to which air quality problems can be expected to persist in the future. The CAFE baseline will hence provide a benchmark against which other policy scenarios can be compared.

In CAFE, the RAINS integrated assessment model will be used for constructing the baseline scenario and for analysing alternative policy scenarios. With this tool it will be possible to

- (a) quantify the likely effects of present emission reduction legislation on future air quality,
- (b) to assess the scope, costs and benefits of the available additional emission control measures and, if appropriate,
- (c) to identify cost-effective packages of additional emission control measures to meet certain air quality objectives in one consistent framework.

Essentially, the RAINS model constructs the baseline emission scenario(s) from three main elements:

- **exogenously** supplied projections of emission generating activities (energy production, transformation and use, demand for transport, agricultural activities, industrial production, etc.),
- information on the emission characteristics of the various sources (**emission inventories**), including information about efficiencies and costs of the available (technical and non-technical) **emission control measures**, and
- the temporal **penetration of these measures** in the Member States and Accession Candidate Countries.

These issues are discussed in more detail in Annex 1.

Concurrent with the development of the air quality baseline and variant scenarios in the CAFE programme, the EEA will assess environmental quality and develop outlooks in the State of Environment and Outlook report, which it intends to publish in 2005. For air and climate change these outlooks will include sensitivity and uncertainty analyses. This work will be an important input to the development of the CAFE baseline and variant scenarios. In addition, the Convention on Long Range Transboundary Pollution (CLRTAP) is preparing a baseline scenario for the review of the Gothenburg Protocol. That review will start following entry into force of the Protocol, which is anticipated for 2004. The intention of the CAFE Secretariat is to ensure that the stakeholder involvement with the CAFE baseline and variant scenarios is additional to (and does not duplicate) the efforts of EEA and CLRTAP.

### **3. STAKEHOLDER CONSULTATION ON THE CAFE BASELINE AND VARIANT SCENARIOS**

Open and transparent dissemination of all information relevant to model calculations is a prerequisite for establishing credibility of the technical analysis that should support the policy proposals to be developed under CAFE. Involvement of stakeholders in the development of the baseline scenario and integrated assessment modelling will be crucial for a number of reasons.

#### **3.1. Objective of Stakeholder Consultation**

The objective of stakeholder consultation is to have it to ensure that:

- all relevant information and data are included in the modelling system in an unbiased manner,
- the CAFE baseline scenario is consistent with overall EU and Accession Candidate Countries projections as well as national projections, and
- the baseline and variant scenarios and the modelling framework are developed in a transparent and objective manner, so that the stakeholders agree on the

baseline scenario to use it as the common reference point during the political discussions

As an outcome of the stakeholder consultation process, we should be able to assess the likely evolution of air quality up to 2020 in a manner that is acceptable from environmental, economic and social points-of-view.

### **3.2. Definition of Stakeholders in the CAFE Programme**

In CAFE, the main stakeholders of the Commission are the Member States and Accession Candidate Countries, representatives of the main economic sectors and environmental NGOs. In addition, consultations will be held within the Commission and the main international and European wide air quality related organisations will be consulted on the CAFE baseline.

In practical terms, the CAFE Steering Group is seen as a central group where consultations with stakeholders will take place. The CAFE baseline and variant scenarios will incorporate information about the development on a wide range of economic sectors in the Member States and Accession Candidate Countries (energy, transport, agriculture, industry, etc.). It will be important for the subsequent development of policy proposals in CAFE that the assumptions on the development are shared and are in agreement with the views of all relevant sectors in the countries. Thus, there may emerge a need to involve national experts from other sectors than air quality in the review process.

In the CAFE Steering Group it was decided to have appointed one expert per Member State and Accession Candidate Country to the CAFE baseline consultation group that should co-ordinate country input to the baseline and variant scenarios<sup>1</sup>. This expert will then draw upon different expertise within the countries. The same approach will be taken with the industry and NGO stakeholder groups. The names and contact details of the experts are given in Annex 2 as of time of writing. This annex will be updated as the CAFE Secretariat receives new nominations.

In order to keep the general public informed, the proceedings of the stakeholder consultations will be made public on the web by the contractor.

For in-depth discussions for individual sectors, the Steering Group could meet in different formations during the consultation, or meetings devoted to specific sectors will be organised that should be attended by the relevant experts. Further, it is envisaged that issues relating to both the baseline and the variant scenarios and the IAM will be discussed in the Working Group on Target Setting and Policy Assessment<sup>2</sup> of the CAFE Programme.

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<sup>1</sup> This expert could be a member of the Steering Group.

<sup>2</sup> This working group also follows the construction and use of the baseline scenario and Integrated Assessment Modelling. This group constituted by stakeholders' representatives will i.a. make recommendations for alternative model runs (scenarios) for the IAM.

### 3.3. Main Tasks in the Stakeholder Consultation

In CAFE, the contractors selected for the development of the baseline scenario and for Integrated Assessment Modelling (IIASA, MET.NO and National Technical University of Athens (NTUA)<sup>3</sup>) will bring the necessary technical information together and feed it into databases of model systems. This work will be carried out in close co-operation with the EEA and its European Topic Centre on Air and Climate Change. The contractors will undertake, *inter alia*, the following tasks:

- describe how the modelling framework is set up and what data sources will be used,
- describe how the information from stakeholders will be used,
- give feedback to the stakeholders how the information was used,
- Ensure that the main assumptions in terms of pressures (e.g. GDP growth rates, sectoral growth rates and corresponding changes in production and consumption), technologies (present and future) etc. are reasonable,
- ensure that all emission reduction options (both technical and non-technical/behavioural measures) and their costs are included in the modelling framework,
- ensure that different kinds of policies (international, EU-wide, national and to some extent local) can be and are analysed in the modelling framework.

## 4. TIMELINE FOR BASELINE SCENARIO DEVELOPMENT AND STAKEHOLDER CONSULTATION

The timeline of the baseline scenario development is constrained by the overall CAFE work plan, which demands accepted baseline and variant scenarios and integrated assessment framework by the end of 2003. This tight schedule requires intensive and efficient interaction between the Commission, the stakeholders and the contractors.

The following sequence of work and associated timeline is suggested:

### 4.1. Consultations about the Baseline Scenario and Underlying Data

11-12 September, 2002: CAFE Steering Group: Presentation and discussion of the work plan

31 December 2002      Member States and Accession Candidate Countries provide to the Commission/contractor

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<sup>3</sup> NTUA is responsible for the development of the Energy Outlook 2030 in the context of the Long-Run Energy Modelling (LREM) contract with Transport and Energy Directorate General. The PRIMES Energy Systems model is used as the analytical tool for this.

- their official national energy projections (including transport and industrial production),
- their official national agricultural projections,
- emission inventories for 2000 and 2001 according to the National Emission Ceilings Directive (Article 8(1)) as well as emission projections,
- official reports according to Article 8(2) of the National Emission Ceilings Directive on national implementation plans, and
- The names and contact details of the “national co-ordinator”.<sup>4</sup>

15 February 2003      Countries that are part of the CLRTAP report their emission inventories for 2000 and 2001 to the CLRTAP

18 February and if needed 19 February, 2003<sup>5</sup>

**1<sup>st</sup> round of stakeholder consultations** is devoted to the energy baseline scenarios of the Commission services. The baseline scenario of the Energy Outlook 2030 will be presented on February 18. The presentation may include variants that are relevant for CAFE including those with additional climate policies provided that modelling results will be available by that date. This will also include a baseline projection of traffic volumes (passenger and tonne km) developed with the SCENES transport model under the TREMOVE transport model service contract<sup>6</sup>.

Related projections of sectoral industrial activities will be discussed on February 19, 2003, provided that the industry/sectors have the possibility to do so. Comments in addition to those already given by Member States during the development of Energy Outlook 2030 from national (energy) experts are requested (deadline for comments: March 31 2003).

The Commission will report about their plans for producing quantitative projections of **agricultural activities** that correspond to the CAP reform.

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<sup>4</sup> The role of this “focal point” would be to be responsible of channelling the information to the experts in their countries and to convey back a co-ordinated country view to the contractor.

<sup>5</sup> CAFE Steering Group will meet on 17 February 2003.

<sup>6</sup> The first consultation meeting on TREMOVE contract will be held on 17 January 2003 in Leuven. In this “Contact group” meeting the intention is to discuss the projections of passenger, vehicle and tonne kilometres up to 2020 as this forms the basis for the air pollution related baseline.

31 March 2003	Member States and Accession Candidate Countries provide to the Commission/contractor additional comments on the Energy Outlook 2030 baseline scenario
April/May 2003	<p>Contractor (NTUA) responds to the additional comments on the Energy Outlook 2030 baseline scenario and, if warranted, modify the energy projections for use in the CAFE baseline.</p> <p>The TREMOVE contractors (KUL and ME&amp;P) respond to the additional comments on the transport projections and, if warranted, modify these projections for use in the CAFE baseline.</p> <p>Contractor (IIASA) incorporates emission inventories, national projections of energy, transport and agricultural activities, national implementation plans into RAINS</p>
June 2003	<b>2<sup>nd</sup> round of stakeholder consultations</b> focuses on the <u>presentation</u> of the preliminary CAFE emissions and air quality baseline and variant scenarios up to 2020 (Commission views and national expectations) to the stakeholders. All details of the baseline and variant scenarios will be made available to stakeholders. However, at this stage the baseline scenario will not be made available to the public at large.
July-November 2003	<p><b>3<sup>rd</sup> round of stakeholder consultations</b> is devoted to a review of the databases and model results of the draft baseline scenario on a country by country basis. This review will involve the national experts (appointed by stakeholders) and the contractor (together with the CAFE Secretariat, as appropriate). In addition, it is envisaged that some workshops will be held to obtain the views of the stakeholders from industry and NGOs.</p> <p>At the end of each bilateral review, the finalised baseline scenario will be made available to the stakeholders as well as the public at large (through the web).</p>
November 2003	The country specific baseline scenarios are pooled together to the CAFE baseline scenario(s) up to 2020 so that a comprehensive picture is obtained. This draft final baseline scenario and the variant scenarios will be sent to the stakeholders.
1-2 December 2003	The <b>CAFE Steering Group</b> will be asked to endorse the final CAFE baseline scenario to be used as a basis for the integrated assessment work in CAFE.



It should be noted that the timeline may change e.g. because additional, crucial information becomes available from the transport baseline.

## **4.2. Technical Review of the Integrated Assessment Modelling Framework**

In addition to the review of data and assumptions used for the baseline and variant scenarios, the RAINS model framework will be reviewed in an open manner by scientific experts. The purpose of the review is to verify the soundness of the modelling approach. This review will be completed by the end of 2003. The review will be organised as a joint exercise of the European Commission and the CLRTAP. Draft terms of reference have been discussed at the CAFE Working Group on Target Setting and Policy Assessment (November 6, 2003). The review will be included in the CLRTAP work plan for 2003.

In addition, the EMEP Steering Body is proposing a technical review of the EMEP model for 2003 to be included in the work-plan of the CLRTAP.

There will also be a separate exercise comparing the RAINS model with other similar models used at European or country level. The input data for models that will participate in such an inter-comparison effort will be defined by mid 2003. For clarity, this inter-comparison effort is not in the scope of the review of the RAINS model.

## **5. RELATIONSHIPS WITH THE BASELINE DEVELOPMENT OF THE EEA'S STATE OF ENVIRONMENT AND OUTLOOK 2005 REPORT AS WELL AS THE WORK OF THE CLRTAP**

### **5.1. EEA State of the Environment and Outlook Report**

The EEA State of the Environment and Outlook (SoEOR2005) report will enable a review of 6<sup>th</sup> EAP and cover all EEA member countries. It will be published in 2005. The main policy focus of the report will be sustainable development, while the report's analyses will focus on environmental consequences of enlargement and progress in the implementation of the four priority areas under 6<sup>th</sup> EAP<sup>7</sup> and the seven thematic strategies<sup>8</sup> including air (i.e. the CAFE programme). A Steering Committee including representatives of DG Environment and other DGs will be set up to steer the work.

The outlooks on air and climate change in the report will be in the form of a baseline scenario with sensitivity and uncertainty analyses. The cornerstone of the quantitative scenarios will be the baseline scenario for air and climate change being

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<sup>7</sup> These are Climate change, Nature and biodiversity, Environment and health and quality of life, as well as Natural resources and waste.

<sup>8</sup> The seven thematic strategies are: Soil, Marine environment, Pesticides, Air, Urban environment, Natural resources and Waste recycling.

prepared by the European Topic Centre on Air and Climate Change (ETC/ACC), which will be, as much as feasible, the same as the CAFE baseline scenario.

Consultation with Member States on the SoEOR2005 will be performed through regular contacts with European Environment Information and Observation Network (EIONET) partner organisations in EEA member countries (National Focal Points). This also includes contacts with national experts on environmental reporting and assessment, the UNECE Task Force on Integrated Assessment Modelling (for review of air pollution scenarios), the EU GHG Monitoring Mechanism Committee (for review of climate change scenarios) and the annual EIONET workshops organised by EEA and ETC/ACC on air quality management and on air emissions and scenarios, which are held in close connection to regular UNECE CLRTAP workshops.

Regarding consultation on the SoEOR2005 air and climate change baseline scenario, EEA will participate in and make use of the outcome of the consultation process on the CAFE baseline scenario, as much as possible, to increase transparency and improve efficiency.

For the sensitivity and uncertainty analyses for SoEOR2005, additional consultation will be arranged with EIONET. EEA will also make use of the stakeholder consultation process and meetings, planned for the CAFE baseline scenario, to present and review these sensitivity and uncertainty analyses.

How and at which stage the overall consultation on the SoEOR2005 will be conducted with other stakeholders, including industry and NGO groups, is not yet decided by EEA.

## **5.2. Relationship of the CAFE Baseline Scenario Development with the Work of the CLRTAP**

CLRTAP has also recognised the need for baseline scenario development. The 33<sup>rd</sup> session of the Convention's Working Group on Strategies and Review, in September 2001, agreed that, *"early in the preparations for the [Gothenburg Protocol] review, agreement should be reached on the ambition level of further emission reductions with a time horizon of 2015 and/or 2020; there was a need to develop robust scenarios, including those on the developments in transport, energy and agriculture"*.

Subsequently, the Executive Body at its 19<sup>th</sup> session in December 2001 agreed that this *"work should use 2015 and 2020 as target years, while noting that this choice should be re-evaluated in the light of the data quality and uncertainty"*. Delegations to the Executive Body *"drew attention to the need for close co-operation with the European Commission's CAFE programme in the work leading up to the review of the Gothenburg Protocol"*, indicating that this was crucial for certain elements of common interest, and that the work should be co-ordinated.

It should be noted that CLRTAP has used RAINS since the early 1990's as its main model for integrated assessment. The integrated assessment modelling activities are reported through the Convention's Task Force on Integrated Assessment Modelling (TFIAM) to the EMEP Steering Body and the Working Group on Strategies and

Review, and through them to the Executive Body. The Executive Body has welcomed the wide participation of experts from Parties to the Convention and NGOs (environmental and industry) in the work of TFIAM, which has been encouraged by the lead country for the Task Force, the Netherlands.

The CLRTAP secretariat is well aware of the need for co-ordination of activities with the CAFE programme and are making efforts to share information on work-plans and deliverables with the CAFE Secretariat. As a Party to CLRTAP the European Community, through its Commission, can fully participate in the bodies of the Convention to provide links and communication at all levels to ensure, where appropriate, there is harmonised development of baselines and co-ordination of the associated activities.