

The role of science and public awareness for air pollution policies in Europe



Christer Ågren

The Swedish NGO Secretariat on Acid Rain

www.acidrain.org

Policy background (1)

- **EU citizens rank air pollution among top environmental problems**
 - Confirmed by Eurobarometer 2003 and 2005
- **Attaining the environmental objectives of the 6EAP require additional abatement of air pollutant emissions.**
 - Confirmed by CAFE baseline scenario 2000 ? 2020
- **Monetised benefits of action outweigh estimated costs.**
 - Ex. CAFE scenario C: costs max. €15 bn - benefits min. €49-160 bn
- **Even "high-ambition" actions have no significant impact on EU growth, jobs or competition.**
 - Confirmed by CAFE macro-economic analysis

Eurobarometer: Concerns

2005

1. Water pollution (47%)
2. Man-made disasters (46%)
- 3. Air pollution (45%)**
3. Climate change (45%)
5. Chemicals-health (35%)

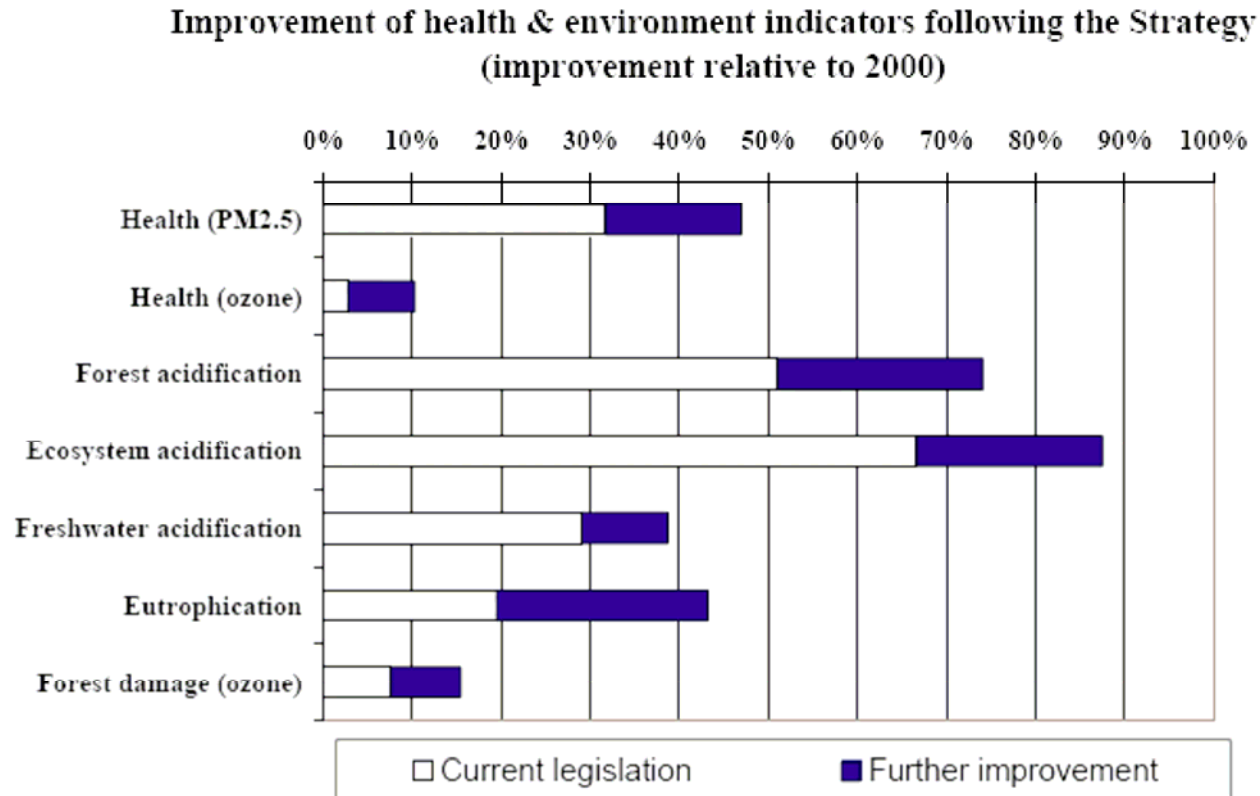
2003

1. Nuclear power (50%)
2. Man-made disasters (45%)
- 3. Air pollution (44%)**
- 4-7. Water pollution (42-43%)
11. Climate change (39%)

2005: List the five main environmental issues that you are worried about (from list of 15).

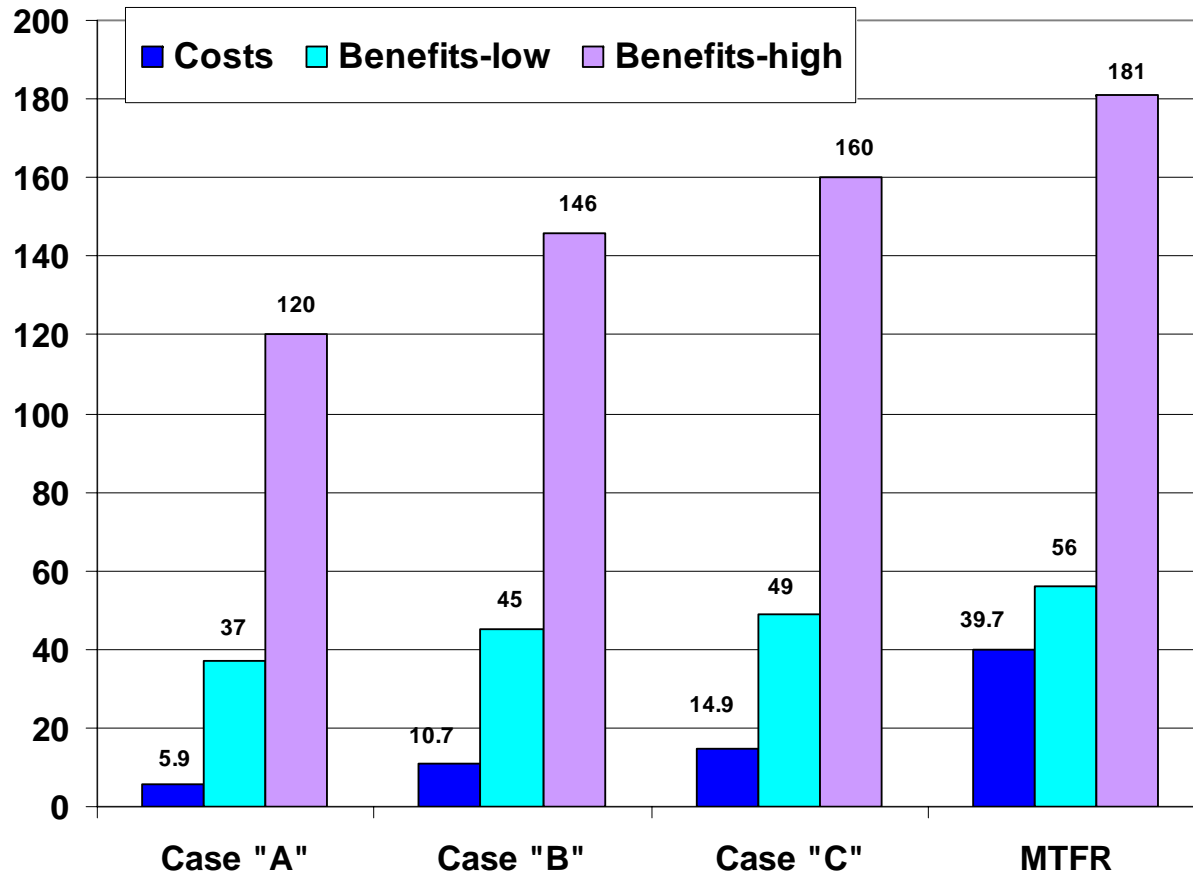
2003: At present, are you very worried/fairly worried/not very worried or not at all worried about the following topics (from list of 25). Result show % very worried.

Relative improvement 2000 - 2020



CAFE CBA 2020

(billion euro per year)



Policy background (2)

- **The 4-year CAFE-process has been highly advanced as regards scientific underpinning and stakeholder consultation and involvement.**
- **Despite this, proposals for further action are met by great opposition by certain member states and industries.**
- **Resistance not only against air pollution control, but more general against environmental action.**
 - E.g. REACH-debate, and Commission turmoil this summer on TS
- **Counter-arguments are primarily related to concerns about costs, competition, and jobs**

Science-policy-public interaction

- The LRTAP Convention has clearly demonstrated the importance and benefits of science-policy interaction.
- CLRTAP experience (and scientific output) has since the mid-1990s been used by and integrated into EU air pollution policy processes.
- The CAFE-programme has improved the process of stakeholder consultation and involvement.

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- Scientific underpinning of policy proposals has gradually increased, but focus is mostly on natural science, engineering, and economy.
 - So far relatively little efforts spent on:
 - understanding the policy processes (social science);
 - building public awareness and understanding;
 - strengthening capacity of economically weak stakeholders (NGOs)

Policy needs knowledge (science)

Knowledge can always be improved.

For CAFE II better knowledge/methods are needed regarding e.g.

- **Measures** (costs; potentials; synergies; non-technical measures)
- **Effects** (health - PM; biodiversity/protected areas; nitrogen accumulation/release; recovery; corrosion)
- **IAM** (shipping; agriculture; non-technical measures; recovery; climate interactions (e.g. O₃); hemispheric dimension)

Science <-> *Policy* (<-> *NGOs/Industry*)

Policy needs public awareness

Public acceptance is dependent upon public awareness and understanding, and (usually) political acceptance is dependent upon public acceptance...

Consequently, there is a need for improving:

- **Transparency (policy/science)**
- **Public/stakeholder participation (policy)**
- **Active and strategic information/communication (policy/science/NGOs)**
- **Capacity building among NGOs (funding)**

Policy <-> Science <-> NGOs/Industry <-> Media <-> Public

Eurobarometer: Trust

2005

1. **Env. prot. org. (42%)**
2. **Scientists (32%)**
3. Television (27%)
4. Consumer org. (18%)
5. Newspapers (15%)
8. EU (12%)
9. Nat. government (11%)
14. Companies (2%)

2003

1. **Env. prot. org. (48%)**
2. **Scientists (35%)**
3. Consumer org. (23%)
4. Television (18%)
5. EU (13%)
6. Nat. government (12%)
10. Newspapers (9%)
14. Companies (1%)

”Who do you trust (most) when it comes to environmental issues?”

The current debate needs...

...good, credible facts & arguments regarding, e.g.

- "Shorter-term" concerns about costs/competition/jobs are closely linked to "longer-term" concerns about ecologic and economic sustainability.

How to demonstrate credibly that good environmental policy is in harmony with good economy and a welfare society?

- Current debate is dominated by short-term regional/local concerns about economy, jobs and welfare.

How to shift (some of) the focus to sustainability, climate change, health, biodiversity, cultural heritage, etc.?

Policy <-> Science <-> NGOs/Industry <-> Media <-> Public

Policy needs attention

- Brings us back to:
 - transparency
 - participation/involvement
 - information/communication
- Plus:
 - public pressure & publicity (media coverage)

Needs for CAFE II

(role of social science)

Examples:

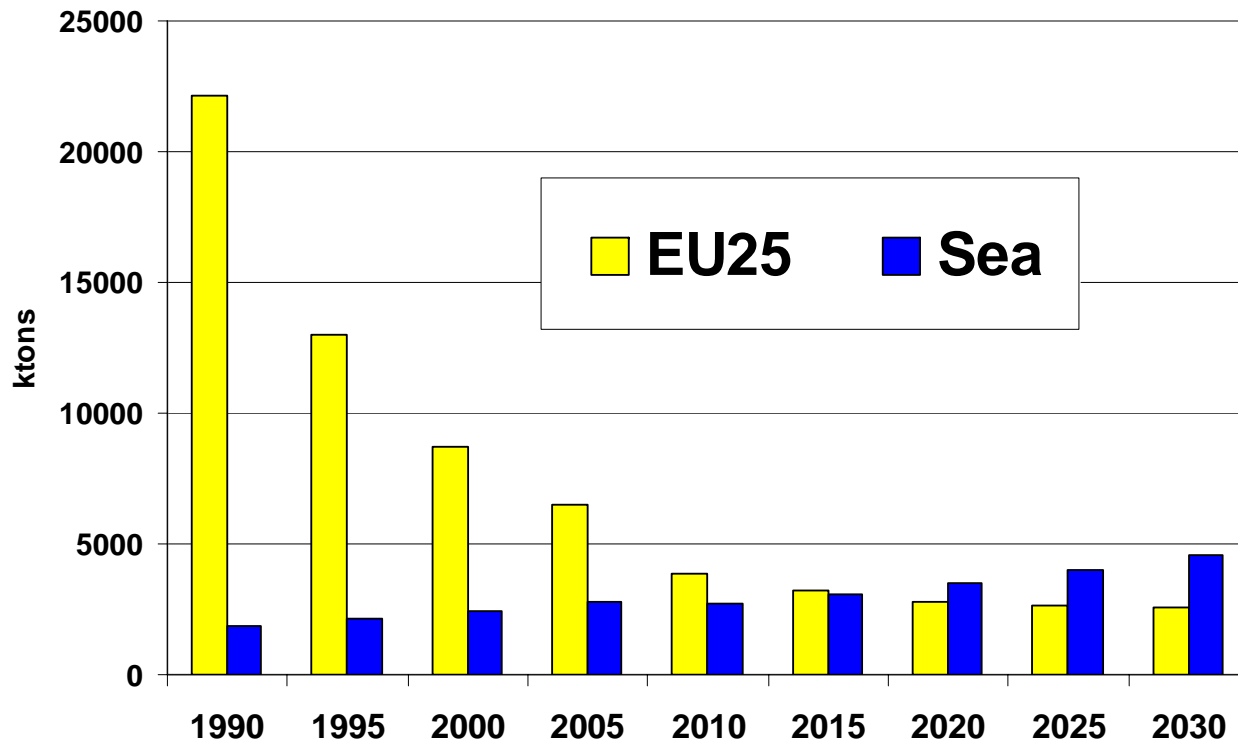
- Documentation of good - and bad - examples of abatement policies, incl. impacts on economy (*)
- Integration of non-technical measures into scenario analyses
- Understanding of and accounting for interactions between air pollution and climate change
- What air pollutants are most harmful to health?
- Biodiversity – how/why is it important? (*)
- Traditional legislation and/or economic instruments? (*)
- Funding for research, monitoring, studies, broad participation, and information
- Actions for improved public awareness (*)

(*) Contributions from social science?

Some conclusions

- **Policy needs knowledge/science**
 - Science to provide "Best Available Knowledge" (agreement vs. conflict)
- **Policy needs public awareness**
 - Improve communication, NGO-cooperation, and media links
- **Policy needs attention**
 - Public pressure, publicity, etc.
- **Science, studies, stakeholder involvement, and awareness-building need funding**
 - Policy-makers must make necessary funding available

Emissions of SO₂



Emissions of NOx

