

## **NEWS RELEASE**

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<http://org.eea.eu.int/documents/newsreleases/Newsrelease-10012002-en>

### **EEA draws key lessons from history on using precaution in policy-making**

Twelve key lessons for decision-making have emerged from a ground-breaking analysis by the European Environment Agency of cases - from the damaging of the ozone layer by CFC chemicals to the "mad cow" disease epidemic - where public policy was formulated against a background of scientific uncertainty or surprise developments, or where clear evidence of hazards to people and the environment was ignored.

A new EEA report published today, *Late lessons from early warnings: the precautionary principle 1896-2000*, examines how the concept of precaution has been applied – or not – by policy-makers over the past century when addressing a broad range of hazards linked to public health and the environment in Europe and North America.

The report should help to improve mutual understanding between Europe and the United States on the use of the precautionary principle in policy-making. The debate has been marked by disputes over the safety of synthetic hormones in beef and of genetically modified plants and foods.

"Our central conclusion is that the very difficult task of maximising innovation whilst minimising hazards to people and their environments could be undertaken more successfully in future if the twelve 'late lessons' drawn from the histories of the hazards studied in this report were heeded," said Domingo Jiménez-Beltrán, EEA Executive Director.

The report's 14 case studies, contributed by experts in their respective fields, provide many examples where inaction by regulators had costly and unforeseen consequences for human health and the environment or where early warnings, and even "loud and late" warnings, of problems were clearly ignored.

The consequences range from the deaths of hundreds of thousands of people from the asbestos cancer mesothelioma, to the over-exploitation and subsequent collapse of fisheries in Canada, California and Scotland, with devastating impacts on local communities.

The 12 "late lessons" drawn from the case studies include the following:

- Be realistic about how materials will be used and disposed of in everyday life.

- Don't allow regulatory authorities to be "captured" by vested interests.
- Avoid allowing one or two materials to monopolise the market – as was the case with asbestos, CFCs and the group of versatile but harmful industrial chemicals known as PCBs – by developing diverse ways of meeting human needs.
- When evaluating risks, ensure that not only all relevant specialist expertise is used but also "lay" and local knowledge.
- Follow up early warnings of problems with long-term environmental and health monitoring.

Poul Harremoës, Professor of Environmental Science and Engineering at the Technical University of Denmark and chair of the report's editorial team, said:

"The use of the precautionary principle can bring benefits beyond the reduction of health and environmental impacts, stimulating both more innovation, via technological diversity and flexibility, and better science.

"The case studies show how harmful and costly misuse or neglect of the precautionary principle can be," he continued. "But over-precaution can also be expensive, in terms of lost opportunities for innovation and lost lines of scientific enquiry.

"If more account is taken – scientifically, politically and economically – of a richer body of information from more diverse sources, then society may be considerably more successful at achieving a better balance between innovations and their hazards in the future. The twelve 'late lessons' distilled from the case studies could help to achieve this better balance."

Professor Harremoës added: "None of the lessons would themselves remove the dilemmas of decision-making under situations of uncertainty and high stakes. They cannot eradicate uncertainties or avoid the consequences of ignorance. But they would at least increase the chances of anticipating costly impacts, of achieving a better balance between the pros and cons of technological innovations and of minimising the costs of unpleasant surprises."

The case studies cover the BSE or "mad cow" crisis; the use of synthetic hormones and antimicrobial agents to promote growth in farm animals; the use of the cancer-causing synthetic hormone DES to prevent miscarriages in women; over-exploitation of fisheries in the northern hemisphere; the use of medical radiation, asbestos, CFCs, and the chemicals benzene, MTBE (a substitute for lead in petrol), tributyl tin (an antifoulant for boats and ships) and PCBs; chemical contamination of North America's Great Lakes; and air pollution from sulphur dioxide.

The report is an example of the kind of information that is needed to help the European Union and EEA member countries frame and identify sound and effective policies that protect the environment and contribute to sustainable development. It also seeks to help clarify the definitions of key terms, disagreement over which has added to the intrinsic difficulties of applying the precautionary principle in practice.

Mr Jiménez-Beltrán said: "The precautionary principle is not just an issue for the European Union: its potential impact on trade means that its application can have global repercussions. The current dialogue between the EU and the United States on the use and application of precaution is partly affected by confusion about the meaning of terms used in the debate.

"This report should contribute to a greater and shared understanding about past decisions on hazardous technologies and therefore, we hope, to improved transatlantic agreement about future decisions. It may also help the dialogue within both the EU and the United States, where there are healthy debates about the pros and cons of applying the precautionary principle."

The 12 "late lessons" are:

- Acknowledge and respond to ignorance, as well as uncertainty and risk, in technology appraisal and public policy-making.
- Provide adequate long-term environmental and health monitoring and research into early warnings.
- Identify and work to reduce blind spots and gaps in scientific knowledge.
- Identify and reduce interdisciplinary obstacles to learning.
- Ensure that real world conditions are adequately accounted for in regulatory appraisal.
- Systematically scrutinise the claimed justifications and benefits alongside the potential risks.
- Evaluate a range of alternative options for meeting needs alongside the option under appraisal, and promote more robust, diverse and adaptable technologies so as to minimise the costs of surprises and maximise the benefits of innovation.
- Ensure use of "lay" and local knowledge, as well as relevant specialist expertise in the appraisal.
- Take full account of the assumptions and values of different social groups.
- Maintain regulatory independence from interested parties while retaining an inclusive approach to information and opinion gathering.
- Identify and reduce institutional obstacles to learning and action.
- Avoid "paralysis" by analysis" by acting to reduce potential harm when there are reasonable grounds for concern.

The report and its individual chapters can be downloaded from the EEA web site at <http://reports.eea.eu.int/> Printed copies are also available on request.

## **Notes for editors**

The precautionary principle governs the use of foresight in decision-making in situations characterised by uncertainty and ignorance and where both regulatory action and inaction carry potentially large costs.

The principle is enshrined in the European Union treaty. The most significant support for the principle in Europe has come from the European Commission's Communication on the Precautionary Principle, the European Parliament's resolution

on the Communication and the Council of Ministers' Nice resolution on the precautionary principle, all issued in 2000.

*Late lessons from early warnings: the precautionary principle 1896-2000* is published by the EEA as Environmental Issue report no. 22. It will also be published in spring 2002 by Earthscan Publications Ltd. For more information, see ["http://www.earthscan.co.uk/home.htm"](http://www.earthscan.co.uk/home.htm).

## **About the EEA**

The European Environment Agency aims to support sustainable development and to help achieve significant and measurable improvement in Europe's environment through the provision of timely, targeted, relevant and reliable information to policy making agents and the public. Established by the European Union (EU) in 1990 by Council Regulation 1210/90 (subsequently amended by Council Regulation 933/1999), the Agency is the hub of the European environment information and observation network (EIONET), a network of some 600 environmental bodies and institutes across Europe.

Located in Copenhagen and operational since 1994, the EEA is open to all countries that share its objectives and are able to participate in its activities. Since 1 January 2002 the Agency has 29 member countries. These are the 15 EU Member States; Iceland, Norway and Liechtenstein, which are members of the European Economic Area; and 11 of the 13 countries in central and eastern Europe and the Mediterranean area that are seeking accession to the EU – Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Romania, Slovenia and the Slovak Republic. Their membership makes the EEA the first EU body to take in the candidate countries. It is anticipated that the two remaining candidate countries, Poland and Turkey, will ratify their membership agreements over the next few months. This will take the Agency's membership to 31 countries.

## **Contact information**

### **For media enquiries**

[Tony Carritt](#)

Media Relations Manager

phone: +45 3336 7147

fax: +45 3336 7198

### **For public enquiries**

EEA Information Centre [information.centre@eea.eu.int](mailto:information.centre@eea.eu.int)