

WORKSHOP ON EU LEGISLATION

PRINCIPLES OF EU ENVIRONMENTAL LAW



© European Commission, European Environment Agency

The Preventive and Precautionary Principle



2012 – European Commission

1

Slide 1

Presentation is on two other key principles of Environmental Law

Outline

- Prevention: Historical background
 - Prevention in international law, primary and secondary EU law and national law
 - Function of the preventive principle
 - Instruments for implementation
 - Precaution: Historical background
 - Precaution in international, EU and national law
 - Functions of the precautionary principle
 - Implementation and application
-
- Prevention and precaution – What is the difference?
 - The role of the judge
 - The political dimension



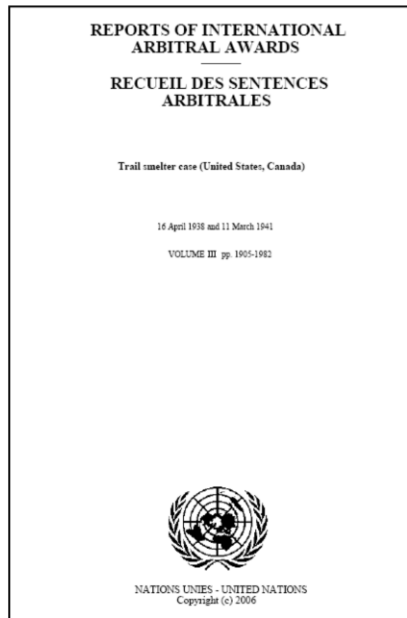
2012 – European Commission

2

Slide 2

The following presentation gives a general overview on the background, the functions and the implementation of the preventive and the precautionary principle in international, EU and national law. The difference between the two principles will also be explained.

Prevention: Historical background



2012 – European Commission

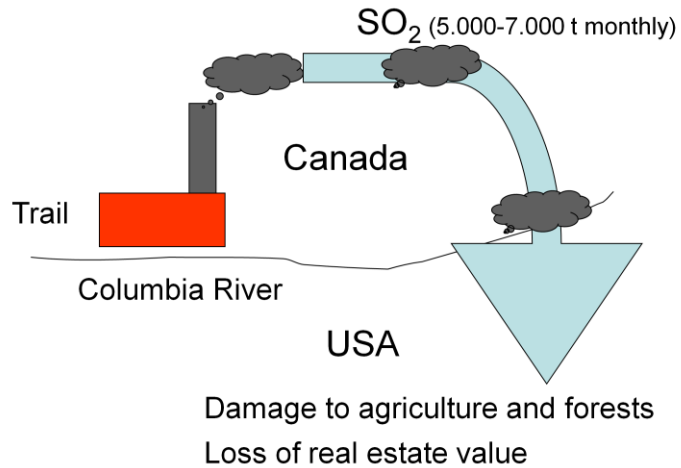
3

Slide 3

The “historical” case (“Trial smelter” – the name goes back to the village named “Trial” where the case took place), decided by the International (Arbitral) Court in 1941, can be considered as a first reference dealing with transboundary pollution.

Prevention: Historical background

The Trail Smelter case



2012 – European Commission

Slide 4

The slides summarizes the facts of the case. The village Trail is located in British Columbia, Canada, near the border to the United States, at the Columbia River. At this place a smelter is located where zinc and lead are smelted in large quantities since 1896. At the time when the decision was taken, about 5.000 to 7.000 tons of Sulphur dioxide were emitted monthly, causing serious damage to agriculture, forests and private property in the USA.

Prevention: Historical background

“The Tribunal, therefore, finds that (...), under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.”

Arbitral Tribunal 11 March 1941,

http://untreaty.un.org/cod/riaa/cases/vol_III/1905-1982.pdf, p. 1965.

→ Principle 21 of the UN Declaration on the Environment 1972



2012 – European Commission

5

Slide 5

The core sentence of the decision taken by the Court is that there is a principle of international law, that there is state responsibility for environmental damage caused to other states, but under the condition of „serious consequences“ and „clear and convincing evidence“ → prevention.

Prevention: Historical background

Stockholm Declaration 1972

Principle 21

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.



2012 – European Commission

6

Slide 6

The principle laid down by the Arbitral Tribunal in the Trail Smelter case is reproduced in Principle 21 of the Stockholm declaration

Prevention in International Law

Rio Declaration on Environment and Development

Principle 2

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.



2012 – European Commission

7

.... And literally adopted by principle 2 of the Rio Declaration

Prevention in International Law

- The principle is enshrined in numerous Conventions (on the marine environment, climate, waste, biodiversity etc.)
- In some international treaties, the principle only applies when “significant” damage may occur (→ Espoo Convention Art. 2 (1), also Art. 3(h) of the old IPPC Directive, now: Art. 7 IED)



Slide 8

Prevention has since then been introduced in a number of international Conventions and also in EU law (we will talk about this later → other law); sometimes the application of the principle is restricted to cases where significant damage may occur.

Prevention in primary and secondary EU law

- Art. 192 (2) Treaty of the Functioning of the EU (TFEU)
- Implemented through secondary legislation (Industrial Emissions Directive, Environmental Impact Assessment Directive, Seveso Directive, waste and water framework directives etc.)



Slide 9

Art. 192 of the TFEU mentions the principles without defining though its modalities of application.

Numerous secondary legislation is based on the preventive approach, such as the Seveso Directive.

Prevention in National Law

The codification of the principle:

- Sec. 5 (1) 1 German Federal Emission Control Act '*Bundesimmissionsschutzgesetz*' lays down mandatory conditions a plant operator has to comply with in order to be granted an operating licence.



2012 – European Commission

10

Slide 10

In Germany the preventive approach is laid down in pollution control law since 1974.

Prevention in National Law

“Genehmigungsbedürftige Anlagen sind so zu errichten und zu betreiben, dass zur Gewährleistung eines hohen Schutzniveaus für die Umwelt insgesamt

1. Schädliche Umwelteinwirkungen und sonstige Gefahren, erhebliche Nachteile und erhebliche Belästigungen für die Allgemeinheit und die Nachbarschaft nicht hervorgerufen werden können;”

The article provides that

“an installation which is subject to licensing shall be built and operated in such a way that

1. no detrimental environmental effects or other hazards noticeable adverse effects and nuisance to the public and the neighbour-hood are caused;”



2012 – European Commission

11

Slide 11

The plant operator has to proof, that his plant complies with all the relevant conditions to prevent negative effects and accidents. In the permitting procedure, the burden of proof lies with the plant operator.

Prevention in National Law

The codification of the principle in the French Environmental Code

Article L 110-1 para. 2

Le principe d'action préventive et de correction, par priorité à la source, des atteintes à l'environnement, en utilisant les meilleures techniques disponibles à un coût économiquement acceptable.

The principle of preventive and curative action, as a priority at source, of damage to the environment and this by using best available techniques at reasonable costs.



2012 – European Commission

12

Slide 12

The principle is also enshrined in the French Environmental Code. Generally it seems, the the application of the Preventive principle is largely agreed in national environmental policy and law, nonetheless, its dimension may differ from one legal order to the other.

Functions of the Preventive Principle

- Avoid transboundary pollution
- Prevent pollution at the source
- Minimize environmental damage
- Reduce risk of harm



Slide 13

The main point is, that the preventive approach tries to anticipate possible (probable) negative effects and uses instruments to avoid that damage will occur. We may differentiate measures to prevent pollution/harm and to reduce/minimize the consequences if damage has nevertheless occurred.

Instruments for implementation

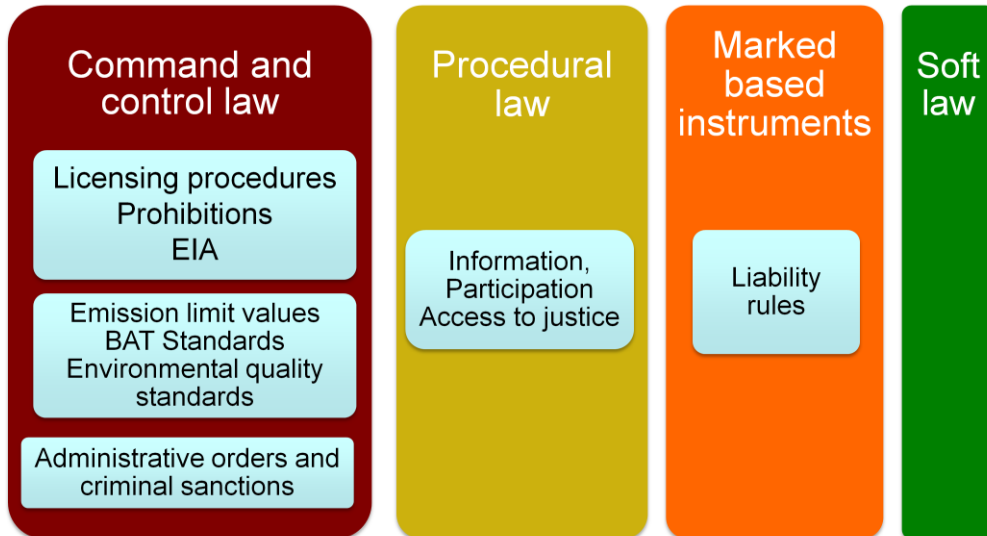
- Environmental Impact Assessment
- Emission standards
- Best Available Techniques
- Environmental Quality Standards
- Authorisation of hazardous activities
- Information, participation, access to justice
- Economic instruments: liability law
- Criminal law



Slide 14

Basically, the instruments to implement the preventive principle do not differ so much from the instruments we already discussed to implement the PPP. But the main focus is of course on the instruments that prevent damage instead of curative measures. But even liability law has a preventive dimension, because the potential polluter will consider the economic loss when hold liable.

Instruments to implement the preventive principle



2012 – European Commission

15

Slide 15

Who is addressee of the principle? Legislator in the first place, authorities and the courts in the second place.

One may have different opinions on the appropriate instruments. In my opinion, still command and control law is the most important instrument to implement the Preventive approach. Secondly, what we call “procedural law” plays an important role (→ Aarhus Convention), because the public and stakeholders are involved to enforce better compliance. Marked based instruments and voluntary approaches / agreements (soft law) may also contribute to successfully reduce environmental risks.

Precaution: Historical background

- 1972 Germany: *Vorsorgeprinzip* (“fore-caring principle”) enacted in the Federal Emission Control Act (sec. 5 par. 2) in 1974
- 1982 UN Charta for Nature
- 1987 Ministerial Declaration of the Second International Conference on the Protection of the North Sea
- 1987 Single European Act (Art. 130r par. 2 EC-Treaty)
- 1992 Rio Declaration, principle 15
- 2000 Communication of the European Commission



2012 – European Commission

16

Slide 16

The second part of the presentation is dealing with the precautionary principle, certainly the most controversial one of the principles we are talking about.

The slide just illustrates some corner stones of the historical evolution of the principle. It is not necessary to go into detail here. On the international level, the Stockholm declaration 1972 did not yet mention the principle, but the Rio Declaration 1992 did. → See next slide.

Precaution in International Law

Rio Declaration on Environment and Development

Principle 15

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.



2012 – European Commission

17

Slide 17

The Rio declaration tries to define the principle and describes its function.

Precaution in International Law

- The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost.(...)

United Nations Framework Convention on Climate Change, Art.3 no. 3



2012 – European Commission

18

Slide 18

The typical situation where the principle applies is lack of full scientific certainty (≡ scientific uncertainty).

The framework convention on climate change takes this up explicitly .

Precaution in International Law

- “Reasonable grounds for concern” (Paris Convention for the protection of the marine environment of the north-east Atlantic, September 1992)
- Is precaution a general principle of international law?
(→ *presentation on PPP*)



Slide 19

The wording may be different, like in the Paris Convention 1992, but usually the principle is limited in International law to situations where there is “Threat of serious damage” or “reasonable grounds for concern”.

An interesting question is, if the precautionary principle is accepted already as a general principle of international law in terms of Art. 38 of the statute of the Court of La Hague or as customary international law.

Precaution in International Law

- ITLOS opinion: http://www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/adv_op_010211.pdf



2012 – European Commission

20

Slide 20

A major step in this direction is the advisory opinion of the International Tribunal for the Law of the Sea (ITLOS) of 1 February 2011 “RESPONSIBILITIES AND OBLIGATIONS OF STATES SPONSORING PERSONS AND ENTITIES WITH RESPECT TO ACTIVITIES IN THE AREA”. The Tribunal holds the precautionary principle could be considered today as “part of customary international law.” (page 41, para 135).

Precaution in the EU Treaties

TITLE XX ENVIRONMENT

Article 191 (TFEU)

(ex Article 174 TEC)

2. Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the **precautionary principle and on the principles that preventive action should be taken**, that environmental damage should as a priority be rectified at source and that the polluter should pay.

→ No definition ! → numerous secondary legislation!



2012 – European Commission

21

Slide 21

EU Law, Self explaining

Precautionary principle in national law

The codification of the principle in the French Environmental Code

Article L 110-1 para. 2

Le principe de précaution, selon lequel l'absence de certitudes, compte tenu des connaissances scientifiques et techniques du moment, ne doit pas retarder l'adoption de mesures effectives et proportionnées visant à prévenir un risque de dommages graves et irréversibles à l'environnement à un coût économiquement acceptable.

The **principle of precaution**, as to which the absence of certainty in regard to the current scientific and technical knowledge, **should not be used to postpone the adoption of effective and proportionate measures** aimed at preventing the risk of serious or irreversible damage to the environment and this to reasonable costs.



2012 – European Commission

22

Slide 22

The principle in French law. Wording is very similar to the definition in international law (see Rio, and Climate Change convention).

Precautionary principle in national law

The codification of the principle:

Sec. 5 (1) German Federal Emission Control Act

- (1) Genehmigungsbedürftige Anlagen sind so zu errichten und zu betreiben, dass zur Gewährleistung eines hohen Schutzniveaus für die Umwelt insgesamt (...)
2. Vorsorge gegen schädliche Umwelteinwirkungen und sonstige Gefahren, erhebliche Nachteile und erhebliche Belästigungen getroffen wird, insbesondere durch die dem Stand der Technik entsprechenden Maßnahmen;

- (1) **Installations subject to licensing shall be built and operated**, in order to achieve a high level of protection for the environment as a whole, in such a way that (...)
2. **precaution is taken to prevent detrimental environmental effects** and other hazards, significant detriments or nuisances, in particular through emission control measures corresponding to state of the art technology.



2012 – European Commission

23

Slide 23

A bit different in German law. The precautionary approach has been implemented already in 1974 (!) in the federal emission control act (BImSchG). It is used to reduce risks further, even if preventive measures have already been taken.

National Law: Nuclear energy law in Germany

The case of the nuclear power plant in Wyhl

Decision of the Federal Administrative Court of 19 December 1985:

“precaution in the sense of the standard in question does not mean that measures of protection may only be taken if ‘certain situations of facts can, by the law of causation, give rise to other, prejudicial, situation or facts’ (...).

On the contrary, it is necessary to take account of the possibilities for damages that do not yet represent ‘dangers’ in this sense, since science in its present state is not capable of predicting with certainty the consequences of certain acts and can therefore not say whether or not these effects represent a danger. (...) It is necessary to **take into consideration suspicion of danger or of ‘reasons of concern’.**”



2012 – European Commission

24

Slide 24

The slide shows the application of the principle in German nuclear energy law. In the Wyhl-case – the plant was never built for political reasons, although the Courts decided finally in favor of the plant operators - the Federal Administrative Court issued a far reaching and still fundamental decision concerning risk-assessment before delivering a permit. Under the precautionary principle also hypothetical risks (“Besorgnispotentiale” in German) have to be considered. The relevant section in the German Nuclear Energy Act is interpreted by the Court as a law providing for preventive and for precautionary measures.

Functions of the Precautionary Principle

- Reduce risk in situation where scientific certainty does not (yet) exist
- Protect future generations → principle of sustainability
- When does it apply? Only to “serious risk”?
 - ..if there are
“reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the high level of protection chosen for the Community” (COM (2000) 1, p.2)



Slide 25

Generally, the function of the precautionary principle is very close to the function of the preventive principle. But it goes further in terms of risk-reduction, if knowledge is not sufficiently available.

It is a open question, if the precautionary approach should only apply to serious risks. I would argue more in line with the Commissions communication: If the chosen level of protection is at risk, precautionary measures should apply. The level of protection has do be decided by the relevant authorities/parliament and is ultimately a political question (we will come back to this point later).

Instruments for implementation

- prevention +
 - Research
 - and
 - Procedural rules how to deal with uncertainty
 - “learning” or “intelligent” law



Slide 26

Instrument → prevention.

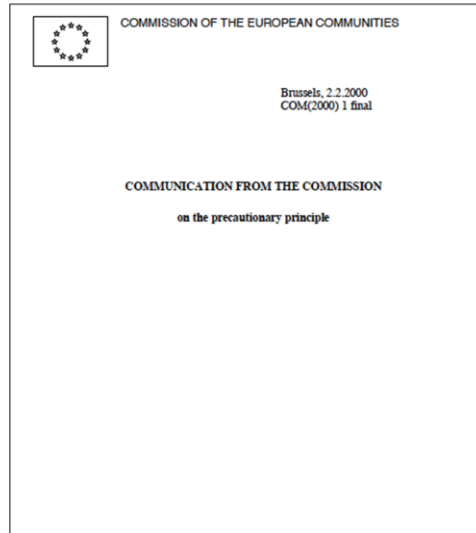
As the precautionary approach is typically determined by a situation of lack of scientific certainty, instruments which aim at improve scientific knowledge should be considered much more.

Also the law should be construed in such a way that new knowledge could be easily introduced even after a decision has been taken (“reflexives Recht”). GMO law is a good example with limited permits (10 years for the market-permit), monitoring obligations etc.

Application of the precautionary principle

- Proportionality
- Non-discrimination
- Consistency
- Examination of the benefits and costs of action or lack of action
- Examination of scientific developments

(COM(2000) 1 final p. 17)



2012 – European Commission

27

Slide 27

The Commission published a Communication on the Precautionary principle in 2000.

The communication mentions some essential points for the application of the principle.

The next two slides make some concretization of these points, but this could be also left aside, if there is a time problem! Participants can read the Communication on their own!

Application of the precautionary principle I

■ Proportionality

- The measure should be proportional to the desired level of protection
- Zero risk is not the option
- Include alternatives

■ Non-discrimination

- comparable situations should not be treated differently

■ Consistency

- Measures should be consistent with the measures already adopted in similar circumstances or using similar approaches



2012 – European Commission

28

Slide 28

Conditions for the application of the precautionary principle.

Again (as on PPP) proportionality is a MUST.

Application of the precautionary principle II

- Benefits and costs of action and lack of action
- Examination of scientific developments
 - The measures shall be maintained as long as the scientific data remain incomplete, imprecise or inconclusive and as long as the risk is considered too high to be imposed on society.
 - Maintenance of the measures depends on the development of scientific knowledge, in the light of which they should be reevaluated. Scientific research → more complete data.
 - Measures based on the precautionary principle shall be reexamined and if necessary modified depending on the results of the scientific research and the follow up of their impact.



2012 – European Commission

29

Slide 29

Conditions on its application II

Bear in mind that scientific development influences potential application of the principle (→ re-examination and modification of measures taken)

Prevention and precaution - what is the difference?

Prevention	Precaution
Knowledge based Risk can be calculated	Uncertainty Risk cannot be calculated
Danger	Risk
Occurrence of damage is probable if no measure is taken	Occurrence of damage is uncertain and cannot be predicted clearly
Regulatory framework defines substantial criteria (e.g. emissions thresholds)	Regulation through procedural requirements
Definition of acceptable risk is primarily science based	Social acceptance of the risk is considered



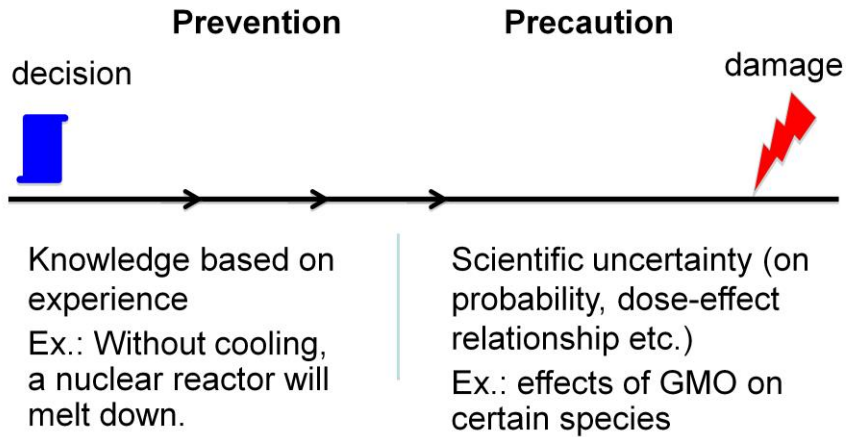
2012 – European Commission

30

Slide 30

The main difference between prevention and precaution is that the calculation of the risk is much more difficult in the precautionary situation because of the lack of scientific knowledge. As a consequence, it is also more difficult to define regulatory standards (possible is, of course, Minimization clauses etc.).

Prevention and precaution - what is the difference?



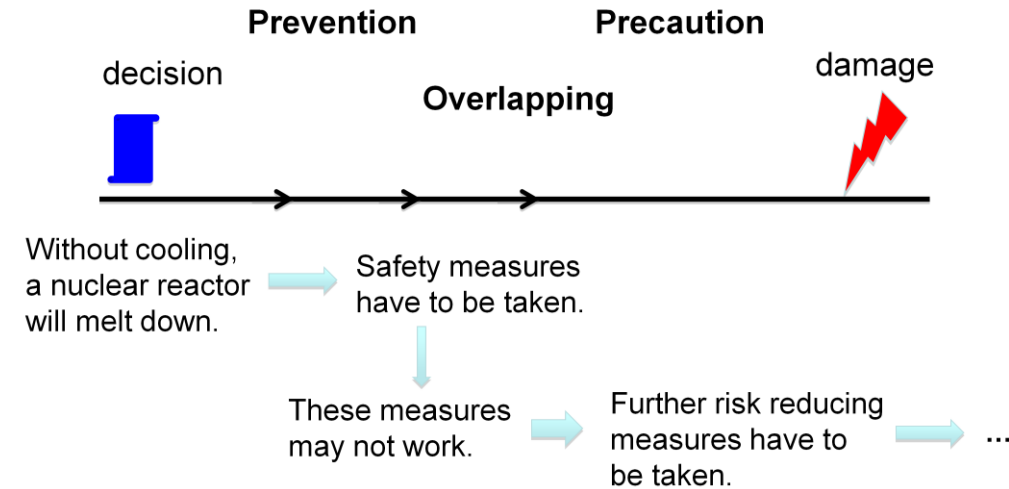
2012 – European Commission

31

Slide 31

The slide shows the different situation when taking a decision (for instance as a competent authority). If there is scientific uncertainty, it is difficult to predict if damage will occur or not. Precautionary measures could nevertheless been taken. If there is knowledge based evidence, a measure must be taken under the preventive approach.

Prevention and precaution - what is the difference?



2012 – European Commission

32

Slide 32

The slide shows the overlapping between the preventive and the precautionary principle. Even if the risk is known and preventive measures are taken, further measures might be necessary to reduce the probability of the risk if important damage may occur. These further risk reducing measures may be justified under the precautionary approach.

The role of the judge

- None of the principles is defined in European Law. It is up to the legislator and ultimately to the Judge to determine the scope of the principles and their criteria of application.
- Who has the burden of proof?



Slide 33

As the principles are – in particular the precautionary principle– only vaguely defined or concretized in European law, the judge ultimately has to decide on the application of the principle.

In particular the question arise, who has the burden of proof.

We may differentiate two situations in the application of the principle: The “licensing situation” and the “control” situation: If a dangerous activity need a license, the operator has to show, that all preventive and precautionary measures have been taken. If the authority controls an existing operation, and wants the operator to take further measures after the operation had been licensed, it is with the authority to justify the necessity of the measure.

The “political” dimension of the (precautionary) principle

- “The appropriate response in a given situation is thus the result of an eminently political decision, a function of the risk level that is “acceptable” to the society on which the risk is imposed.”

COM(2000) 1 final, p. 15 (→ concerning the decision whether or not to act – for the decision maker)

- The risk assessment concerning a nuclear power plant would be “ultimately a decision under political responsibility that cannot be answered by merely legal / juridical criteria”

German Federal Administrative Tribunal, 5.4.1989, NVwZ 1989, p.1170
→ certain restrictions of judicial control



2012 – European Commission

34

Slide 34

It seems to be clear, that ultimately there is a political dimension of the principle. The Commission explains this very well.

It is interesting to note, that also the Courts seem to be aware of this. The German Federal Administrative Tribunal accepted a decision of the lower Court of Münster, that argued in this way. The procedural situation in this case was, that a neighbour complaint after the accident in Chernobyl and requested to shut down the nuclear power plant of Würgassen. The competent authority decided not to shut down the plant as there would be no “danger” to the public or the neighbourhood. The problem in such cases is, that the power plant may still comply with the standards originally requested, but that meanwhile these standards have evolved. There are no general binding rules about the acceptability of the “delta” between the originally requested state of the Art and the today existing state of the art.

More information

Beder, Sharon, (2006), *Environmental Principles and Policies, An interdisciplinary introduction*, earthscan, London (reprinted 2010).

de Sadeleer, Nicolas (2002), *Environmental Principles*, Oxford University Press, 2002.

de Sadeleer, Nicolas (2007), *Implementing the precautionary principle*, earthscan, London.

Epiney, Astrid (2006), *Environmental Principles*, in: Macrory (ed.), *Reflections on 30 years of EU Environmental Law*, Groningen: Europa Law Publishing.

Roller, Gerhard (2002), *Environmental Law Principles in the Jurisprudence of German Administrative Courts*, in: M. Sheridan/L. Lavrysen (eds.), *Environmental Law Principles in Practice*, Bruylant, Brussels 2002, p. 157.

COM(2000) 1, *Communication from the Commission on the precautionary principle*



2012 – European Commission

35

Slide 35

Useful literature sources (English literature only)