“We have sufficient scientific evidence to state that action is required. And where uncertainty still exists we must give the environment the benefit of the doubt” (Prime Minister of Norway Jan P. SYSE, May 8, 1990)

INTRODUCTION

“We are living in a society of risk”; “The science itself is uncertain”: everyone has heard or read statements like this. But we have to ask: what is the risk? What is the uncertainty of the science? The risk is defined as: “the probability that a negative effect affects a human being or the environment because of their position in dangerous situations, what can be biological, physical or chemical”; whereas the “uncertainty” is a “situation of doubt about the reliability, the care or the relevance of an information”.

To illustrate these words, this report deals with the Precautionary Principle, in particular in the European Union. We decided to proceed in four parts, in order to reach a global view of the topic, while setting out the basic grounds of it.

Valérie will take care of the general notions of the principle, the areas of rulings, for giving content to the subject. Thomas will asset the most important legal sources from the European Union, and from European States, especially Germany, Italy, Belgium, France and Switzerland. Elsa will analyse specific law-cases from The International Tribunal of the Law of the Sea, the World Trade Organisation and the European Court of Justice. Nino will finally take distance from this basic tools and set out more concrete issues about the Precautionary Principle.
I. THE PRECAUTIONARY PRINCIPLE

By Valérie van Zeebroeck

In this part, we will explain the general features of the precautionary principle, giving the origin, a definition and the main elements of the principle, comparing the precautionary principle with other environmental principles, determining the main areas where the principle is applied, and finally concluding with a few words about the main international sources, since the second part of our report is based upon European Law.

1. General notions

As general remarks, we think about a wide explanation of the concept of precautionary principle and its origin, as well as the key elements of the principle, since the precise definitions will be assessed later (see part II), and its difficult application in practice, due to its controversial meaning.

1.1. Definition of the precautionary principle

According to the European Union website: “the precautionary principle may be invoked where urgent measures are needed in the face of a possible danger to human, animal or plant health, or to protect the environment where scientific data do not permit a complete evaluation of the risk. It may not be used as a pretext for protectionist measures. This principle is applied mainly where there is a danger to public health. For example, it may be used to stop distribution or order withdrawal from the market of products likely to constitute a health hazard”.

Practically, the precautionary principle consists to ensure “that a substance or activity posing a threat to the environment is prevented from adversely affecting the environment, even if there is no conclusive scientific proof linking that particular substance or activity to environmental damage”.

1.2. Legal origin of the precautionary principle

The precautionary principle appeared, as an environmental idea, during the second half of the twentieth century. However, this principle started to be implemented into legal texts during the seventies and eighties, notably in Europe with the London Declaration of 1987 (Second North Sea Conference Ministerial Declaration). Today, the precautionary principle is widely recognized as a guiding principle, part of customary law.

Indeed, now that the humankind has realized that it had already caused a lot of – maybe irreversible – damages to the environment, and that some ecosystems seem to be in a process of disappearance, the “benefit of the doubt” must be given to the environment, so that when an activity may cause a serious or irreversible harm, “caution” should be the keyword, and the precautionary principle will require that “responsible public and private power holders prevent or terminate the activity”.2

The original reasons for this principle to be currently widely approved, are “essentially in response to the observed increasing environmental damage and the recognition that the limits of the assimilative capacity of the environment had been reached. Public pressure was also increasing since the late 70s to protect the environment as such, in addition to avoiding harm to public health indirectly through environmental exposure”.3

The first states to have implemented the precautionary principle into their juridical orders were Germany and United Kingdom. Indeed, in the Federal Republic of Germany, the Vorsorgeprinzip was used in many different laws and originally in the German jurisprudence at the end of the sixties. According to this Vorsorgeprinzip, “environmental protection policy should be preventative instead of reactive, employing avoidance and reduction of emissions technology at their source. The essence of the Vorsorgeprinzip is that environmental dangers [harm to the environment] and damages shall be avoided as far as possible”.4

Concerning the United Kingdom, the idea was more (but early) based on a preventive approach than on a precautionary approach (see below), as the aim was to “prevent damage to the environment once the damage is known or proved. [...] [For instance,] the British Government has adopted emission standards only for the most dangerous substances” using a “Red List”.5

---

2 J. CAMERON and J. ABOUCHAR, op. cit., p. 3.
5 J. CAMERON and J. ABOUCHAR, op. cit., p. 9.
Afterwards, the precautionary principle has been developed and implemented in more and more national laws, as in International and European laws (see part II).

1.3. **Key elements of the precautionary principle**

Therefore, the main elements of the precautionary principle seem to be, first, the **evidentiary threshold**, which means that the principle “justifies early action to prevent harm and an unacceptable impact to the environment and human health in the face of scientific uncertainty”. This “uncertainty” can be a risk (real risk where the relevant factors can be quantified), uncertainty (knowledge about a risk but no information about the quantitative significance of the relevant factors, ignorance, or indeterminacy), ignorance (there might be a risk but we do not know a lot about it yet), or indeterminacy (ignorance and no way to find out).

The second key element is the **burden of proof**, which is reversed in the precautionary principle, so that the potential polluter has to prove that its activity is safe.

The third one is the **substitution principle**, according to which safer alternatives to potentially harmful activities must be sought and picked up when an activity might cause damage to the environment, even if there is no certainty (“environmental damage should as a priority be rectified at source”).

Finally, the decision-makers have the **positive obligation** to contribute to this control and precaution system in their own state.

1.4. **Application of the precautionary principle**

As the European Commission stated in its Communication on the precautionary principle in 2000: “the issue of when and how to use the precautionary principle, both within the European Union and internationally, is giving rise to much debate, and to mixed, and sometimes contradictory views. Thus, decision-makers are constantly faced with the dilemma of balancing the freedom and rights of individuals, industry and organisations with the need to reduce the risk of adverse effects to the environment, human, animal or plant health. Therefore, finding the correct balance so that the

---


7 *Ibidem*.

8 Article 174 EC Treaty.

9 *Ibidem*.

10 *Ibidem*.
The Precautionary Principle in the European Union 2010

proportionate, non-discriminatory, transparent and coherent actions can be taken, requires a structured decision-making process with detailed scientific and other objective information”.

It is consequently important to note that, as practically shown later (see part IV), the application of the precautionary principle is controversial and not easy in practice, due to differing formulations of the principle in a lot of legal instruments.

---


The Precautionary Principle in the European Union  2010

2. Comparison with other environmental principles

The precautionary principle is in the middle of different environmental principles, such as the polluter-pays principle and the prevention (or preventative) principle. It is useful to explain these other principles in order to well understand the place and the specificity of the precautionary principle.

2.1. The polluter-pays principle

This principle, born in the 70’s, aims to force polluters to bear the real costs of their pollution, even if these costs will often be hard to calculate precisely.\(^\text{13}\)

Indeed, economists had shown that producers often “externalized” their costs in the form of pollution, which was borne by the whole community, instead of being borne by the producers themselves, using more expensive but cleaner products and technologies.\(^\text{14}\)

This principle is thus an incentive to act in favour of the environment, but makes its legal effects only after that the pollution is made, contrary to the precautionary principle which imposes to take into account the potential environmental damages before acting.

2.2. The preventative principle

The precautionary principle must be distinguished of the prevention principle, which is maybe more concrete and used when there is a data uncertainty but the precision of measurable effects and causalities are beyond any doubt, which means that it is quite sure that the activity will have a damaging effect on the environment. Permits and statutes imposing some care come from the prevention principle.\(^\text{15}\)

In other words, “the preventative principle (...) is often understood to comprise the avoidance of known harm as well as known risks of harm”.\(^\text{16}\)

Beside, the precaution principle is used when there is no scientific evidence of damage to the environment, but despite this lack of knowledge, and data uncertainty, if

---


\(^{14}\) Ibidem.


The Precautionary Principle in the European Union 2010

there is a reasonable doubt, the actors should act with caution and take this scientific uncertainty into account. For example in the area of food, even if there is no proof of a danger, public and private actors should be careful, because it is a question of public health.\textsuperscript{17}

The precautionary principle is consequently useful, and innovative, by integrating science and precaution and by forcing the public and economic actors to take the scientific uncertainty into account, which make them responsible for the environmental damage if they were not careful in their actions, breaching this precautionary principle.

2.3. \textbf{The principle of integration}

This principle requires that the public authorities integrate long-term environmental protection and sustainable development into their actions. In other words, “Environmental protection requires that due consideration be given to the potential consequences of environmentally fateful decisions. Various jurisdictions (…) and business organizations (…) have integrated environmental considerations into their decision-making processes through environmental-impact-assessment mandates and other provisions”\textsuperscript{18}

The precautionary principle requires that public and private actors take into account the potential environmental damages, which is both wider (targets all economic actors) and narrower (“taking into account” and not “integrate”).

2.4. \textbf{The public participation principle}

Both before and after a decision with environmental consequences, the views of the public are often taken into account by the authorities. This is the principle of public participation, which requires that the citizens of a state may express their opinions on a decision in project, and that they “may challenge in court or before administrative bodies government decisions affecting the environment”\textsuperscript{19} as well.

This principle is quite different than the precautionary principle and will not be confused, but is also an important environmental principle.

\textsuperscript{17} \textit{Ibidem.}
\textsuperscript{18} Encyclopedia Britannica, ed. 2010, \textit{op. cit.}
\textsuperscript{19} \textit{Ibidem.}
3. Areas of ruling

The precautionary principle is especially used in certain areas of environmental rules, such as food, waste and new technologies. Let us illustrate this with a few explanations and examples.

3.1. Food safety and biotechnologies

A first field where the precautionary is applied is the food and feed safety. Indeed, in order to protect public health, because “The free movement of safe and wholesome food is an essential aspect of the internal market and contributes significantly to the health and well-being of citizens, and to their social and economic interests”\(^\text{21}\), the precautionary principle should be applied to the production of food.

In this area, “where a risk to life or health exists but scientific uncertainty persists, the precautionary principle provides a mechanism for determining risk management measures or other actions in order to ensure the high level of health protection chosen in the Community”.\(^\text{22}\) Indeed, health and consumers protection must be a goal kept in mind by the producers and the public authorities.

A lot of examples exist in this area, from the animal nutrition to labelling (\textit{see part III}), through the use of Genetically Modified Organisms (GMOs), as biotechnologies.

3.2. Waste treatment

Waste, as unwanted by-product, which can be gaseous, liquid or solid, for examples radioactive waste, agricultural waste, household waste, commercial or industrial waste. All this must be controlled and managed not to damage the environment, even if there is no scientific certainty that they could damage the environment or be bad for public health.

\(^{20}\) Website of the European Commission available at: \url{http://ec.europa.eu/food/food/foodlaw/index_en.htm} was partly inspiring this section.


\(^{22}\) \textit{Ibidem}, p. 2.
3.3. **New technologies**

New technologies, as web networks and telecommunications services, should also be guided by the precautionary principle, as long as we do not know if and how dangerous it can be for the environment and the public health.

An interesting point to mention in this area is when a State has, on the one hand, the obligation to cover the entire territory with a cell-phone network, but on the other hand, should apply the precautionary principle as long as it does not know if the relay antennas are safe or not.

3.4. **Biochemistry**

In the area of biochemistry, as the creation of medicinal products, the precautionary principle should be applied as well, because of the chemical waste and the chemical safety in food, related to potential additives (see part III), hormones (see part III) or flavourings, but also because of the medical safety in the drug market.
4. Conclusion: International sources

As international sources, beside the European rules which will be described in the next part, the Rio Declaration on Environment and Development of 1992 has to be mentioned first, even if, chronologically, other international sources appeared before the Rio Conference. According to Principle 15 of this Declaration, “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”. 23

Before this Declaration, some International instruments already contained the precautionary principle. First, Parties to the Vienna Convention for the protection of the Ozone Layer of 1985 and its Montreal Protocol of 1987 “formally stated their determination to take ‘precautionary measures’ to prevent emissions of ozone layer depleting substances”. 25 Since then, a lot of conventions and declarations referred to the precautionary principle or approach, such as the Convention on the Protection and Use of Transboundary Watercourses and International Lakes. 26 1987 was also the year of the London Declaration mentioned above.

Beside these large International conventions and declarations that we will not mention exhaustively, International organizations, such as the World Trade Organization, have also a big role in the emergence of the precautionary principle as a norm of customary law.

II. LEGAL SOURCES

By Thomas Kofler

1. General Background

Finding a relationship between the legal protection and the scientific rules for protecting the environment is not so easy. Politics have to be really careful in dealing with the environmental protection, to guarantee the interest of any involved party. The whole idea of the precaution is “Better safe than Sorry”. The community’s objectives for environmental protection are listed as follows:

- Preservation, protection and improvement of the quality of the environment;
- Protection of human health;
- Prudent and rational utilisation of natural resources;
- Promotion of measures at international level to deal with regional or worldwide environmental problems;

One of the most important principles to reach these objectives is the precautionary principle. In international law the principle was for the first time recognized as universal principle in 1992 in the conference of Rio de Janeiro on environment and development. In this occasion was also for the first time on international level averted, which difficulties and limits take a possible applying of the principles, and how to use it.

On European level the principle entered officially in the treaty in the same year, with some modifications brought on the treaty of Maastricht (art. 130R, changed later in article 174 of the treaty of Amsterdam). In this time was no exact definition given to the principle, but it was taken next to the pre-existing principles of “polluter-pays”, “prevention principle” and the “proximity principle” (i.e. environmental damage shall be rectified at source).

The Precautionary Principle in the European Union  2010

Now in the new Constitution, art. III - 233 introduces the precautionary principle as one of the fundamental objectives of the politic of the European Union in the matter of environmental protection.
2. Directives and Communications in the E.U. regarding the precautionary principle


As first step in the European legislation to the general precautionary principle can be seen in the directive 75/439 on the disposal of waste oils. Here the predominant principle is the polluters-pay principle, as mentioned in article 14 of the directive. But still in this article, in combination with article 5 of this directive, they set up a certain kind of the precautionary principle, in the sense that they created with the help of interpretation a legal basis for the application of the precautionary principle.

2.2. Council directive 91/689/EEC on hazardous waste amended by directive 94/31/EC

With amending the directive 91/689/EEC in 1994 was introduced, regarding this specific directive, the precautionary principle. Recognized in 1992 by the Treaty, the precautionary principle should from then on be valid for every legislation regarding environmental matters. The Commission amended article 10 as follows: “Member States shall bring into force his laws, regulations and administrative provisions necessary for them to comply with this Directive by 27 June 1995.” Member States where also informed to apply to the new principles introduced in 1992, therefore also the precautionary principle.

2.3. Communication from 2 February 2000 from the Commission

More intensive effect on the Law of the European Union of the precautionary principle, also from a point of certainty and transparency, had the Communication from the 2nd February 2000. All its contents had been shared by the Council in the resolution of the 4 December 2000. The Communication provided that:

29 Directive 75/439/EEC.
30 Article 2: “Member States shall take the necessary measures to ensure the safe collection and disposal of waste oils”.
The Precautionary Principle in the European Union  2010

1. The use of the precautionary principle presupposes certain calculated (from an uncertain level, but) risks, what means “a certain scientific valuation, which indicates if there are some reasonable risks to fear.

2. When a certain action is necessary on the base of the precautionary principle, this action should be:

   • Proportional to the level of protection;
   • Not discriminatory  with its application;
   • Coherent to similar measures already taken;
   • Based on an exam of  advantages and possible duties (valuation of the relation between costs and benefits)
   • Always controlled in the light of new technology
   • Able to produce scientific proves necessary for a complete valuation of the risks

2.4.  Council framework decision 2003/80/JHA on the protection of environmental law trough criminal law

In 2003 the Council of the European Union introduced, to underline the importance of the environmental law, an obligation for Member States to reach a system, which punishes the breach or unlawful treating of environmental law. The precautionary principle got in the meanwhile a fundamental pillar in the European Union, for this also the protection is getting more and more important.

2.5.  Article III - 233 of the European Constitution

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 principle that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.

33 THE ESSENTIAL ELEMENTS OF THE EUROPEAN CONSTITUTION - Group of the European People’s Party (Christian Democrats) and European Democrats in the European Parliament
3. The precautionary principle in national legislation: Germany, Italy, France, Belgium and Switzerland

3.1. Germany

Environmental law principles play an extremely important role in German environmental law. The concepts of precaution and prevention tend to be merged into the term *Vorsorge*. Nonetheless, German legal literature distinguishes between prevention (*Praevention*), which refers to foreseeing known dangers, and precaution (*Vorsorge*), which does not require certainty of the occurrence of the risk which is provided against.

Since a long time these principles are based in the environmental law. Article 5.2 of the Federal Control Law (*Bundesimmissionsschutz - law made earlier then 1975*) specifies that: “Installations subject to authorization are to be constructed and operated in such a manner that precaution is taken against damaging environmental effects...”

The precautionary principle also made remarkable progress in the area of nuclear law, due to the legal interpretation of Article 7 of Germany’s Atomic Energy Law (*Atomgesetz*). This provides that authorization may only be granted if “the precautions demanded by the current level of scientific and technical knowledge are taken against possible damage caused by the establishment or operation of the installation.” The German Federal Constitutional Court (*Bundesverfassungsgericht*) ruled, in a judgment of 8 August 1978 relating to the operation Kalkar nuclear reactor, that Article 7 of the Atomic Energy Law was consistent with the constitution and aimed to ensure the optimal defense against dangers and the greatest precaution against risks, based on the protection afforded by fundamental constitutional rights, including the right to the protection of help.

Risks should therefore be against a criteria of practical reasoning (*Anschätzungen anhand praktischer Vernunft*) - that is, a reasonable assessment. Beyond the threshold of practical reason, uncertainties are inevitable; these are the residual risks (*Restrisiko*) that every citizen must tolerate as a socially fair distribution of burdens (*sozialadäquate Lasten*). The basic argument is thus: if a residual risk must be tolerated by everyone, no one has a subjective right to contest exposure to such a risk.

35 The Enforcement of the Precautionary Principle by Germany, French and Belgian Courts; Nicolas de Sadeleer.
The Precautionary Principle in the European Union

More recently, litigation concerning the implementation of the precautionary principle in German environmental law has also taken place in the field of biotechnology, based on the provisions of the law of 16 December 1993 (Gentechnikgesetz). Article 6 of this law states that: “in conformity with the current level of science and technology, the operator must take all measures to protect the rights set out in Article 1 and to anticipate the creation of dangers…”

German administrative courts will thus exercise their jurisdiction only in order to control the procedural aspects of risks assessment, and will leave the administration a margin of appreciation concerning the substance of the measures that must comply with the precautionary principle.

Germany has always been a leader in environmental law matters, as also the early realization about the principle shows.

3.2. Italy

In Italy the use of the precautionary principle is a really new topic. Only the Italian Constitution guaranteed, under article 10, that: “the Italian law system conforms itself to the principles of the general international law.” The precautionary principle itself found his first express mentioning in the law 308/2004.

Before 2004 there were only few mentions of the precautionary principle in certain sector specific rules. The best example for this is the law 36/2001 against the pollution of electro smog, which lays down under its objectives to promote the research and the scientific development of long term effects to find measures for prevention of risks and to use the precautionary principle.

A few years ago the Italian environmental law legislation had a radical reform, which delegates with the law 152/2006 the government to reorganize, to coordinate and to integrate with the new international principles the Italian environmental law matter. Article 2 of this law lays down the obligation to insert explicitly the principles of the European Union, so the precautionary principle, the preventive principle, etc. The precautionary principle is most time used in connection with environmental damages.
3.3.  France

In France we will find for the first time the precautionary principle in Article 200-1 of the Rural Code in 1995. This Article, introduced by the law of 2 February 1995, which initiated the codification of environmental law in France, defines the precautionary principle as: “the principle according to which the absence of certainty, taking account of current scientific and technical knowledge, ought not to delay the adoption of effective and proportionate measures aimed at preventing a risk of serious and irreversible damage to the environment, at an economically acceptable cost.”

Interesting is that in France the precautionary principle was always more seen to protect the health of the people then in “real environmental” law. The vaccination against the “swine-flu” is one of the best examples. Its applications were developed in the context of thinking about governmental responsibilities.

In France the case law plays an important role in implementing the precautionary principle. In a recent decision, the Conseil d’Etat considered the legality of a decree that extended the prohibition of the marketing of products of bovine origin which might present a risk of BSE transmission to ovine and caprine products. The decision was taken by the government and sent out as a decree from the Prime Minister. On the basis of the precautionary principle, which urged that the Government take particular account of “the care required for the protection of public health”, the Commissaire du Government decided that it would be difficult for the French Government to have committed a manifest error of appraisal. The Conseil d’Etat rejected the request to annul the decree, indicating that even if the risk of transmission had not yet been established, decisions on the point could not be made with any certainty. The Conseil d’Etat concluded that “with regard to the precautionary measures that are indispensable when dealing with public health, the Prime Minister has not committed an error of appraisal”.

As we see France has a totally different approach to the precautionary principle.

3.4.  Belgium

In Belgium, as in France, the precautionary principle was first introduced in a decree of the Flemish Region of 5 April 1995, which stated that: “Environmental policy shall
seek to achieve a high level of protection…it shall be based on, inter alia: - the precautionary principle.”

At the Federal level the principle was recently reiterated in the Federal law of 30 January 1999 aimed at protection of the marine environment in the maritime areas under Belgian jurisdiction. Article 4 of this law states that: “…when carrying out activities in maritime areas, operators must take into consideration the precautionary principle. This means that preventive measures must be taken when there are reasonable grounds for concern about pollution of marine areas, even if conclusive proof of a casual link between the introduction of substances … and deleterious effects does not exist.” The principle is thus directly binding on all users of the marine environment, both public and private.

3.5. Switzerland

The precautionary principle is of major significance to environmental protection as a whole. It was explicitly confirmed in Section 74 Paragraph 2 of the Federal Constitution [BV] in its complete review of 1998, specifically, in the form in which it had been valid thus far in environmental law (updating of constitutional law). In principle all the formulations of the concept of precaution in environmental protection are based on the notion that indeterminable risks are to be avoided; any effect likely to be harmful or noxious is to be limited as far as possible.

Accordingly all environmental orders also comprise precautionary regulations tailored to the individual environmental sectors. Environmental protection law does not make the clear separation between prevention (in the case of known effects and known causal relationships) and precaution (in the case of unknown effects or a lack of knowledge of their causal relationships) as described above. Precaution as it is understood in environmental protection law covers both prevention and precaution simultaneously. There is no need subsequently to break down environmental protection law into the various precautionary approaches for reasons of constitutional law or due to statutory requirements.

The precautionary principle is the third mainstay within the scope of the Environmental Protection Act (EPA) [Umweltschutzgesetz, USG], after the duty to prevent or eliminate harmful or noxious effects and the polluter-pays principle. The

---

special-purpose Section already specifies: “Precaution as defined implies that any effects likely to be harmful or noxious are to be limited early on.” The Agricultural Act [Landwirtschaftsgesetz] revised as part of the 2007 Agricultural Policy defines the precautionary principle in a new Section. In terms of content the application criteria accord with those of the EU.
III. CASES OF LAW

By Elsa Perdaems

In this part, I will try to set out how the precautionary principle is used as a legal tool to solve conflicts between notably commercial interests and the need to protect health and environmental concerns. I choose to deal with the most important cases of several Courts, on an international and regional level and in different periods of time for pointing out the evolution of the principle. For each case, I will first present the facts, then analyse the Court's reasoning, and try to have a critical point of view of these findings. Unfortunately it is not possible to go through a very deep analyse of each case in such a low length of pages, so I will analyse more precisely the last ECJ case, as we have a particular interest for European Environmental Law. This case has the advantage of being very complete in the issues raised by the precautionary principle, thus allows us to have a good picture of the working of it.

1. The ITLOS: The Southern Bluefin Tuna Case

   In 1999, New-Zealand and Australia (applicants) referred to the International Tribunal for the Law of the Sea (ITLOS) the case of Japan (defendant) violating, on their opinion, its obligations in threatening the stock of southern bluefin Tuna (SBT) by undertaking unilateral experimental fishing. The three states were bound by the UNCLOS (United Nations Convention on the Law of the Sea). The issue at stake in this case was thus the protection and conservation of biodiversity.

   The constitution of an arbitral tribunal for solving the dispute was pending, but negotiations would have been too long and the fishing period over. Yet Japan had already gone beyond its allowed amount of SBT, then "bluefin tuna [was already] severely depleted and [was] at this historically lowest levels". The reason why the case had been referred to the ITLOS is that the applicants did not want to wait for the negotiations to be done concerning the arbitration. The applicants wanted Japan to cease immediately its fishing experiment, in order to prevent any serious harm on SBT stock. The best mean for that effect was to claim provisional measures to this tribunal. Indeed, when the
The Precautionary Principle in the European Union 2010

precautionary principle is at stake, provisional measures are a particularly appropriate tool, then it deals both with the urgency and the lack of scientific knowledge.

In this case, it is stressed that the precautionary principle contains both a negative and positive aspect. First, it implies that the damaging action is ceased. Second, it includes that States take appropriate measures to manage and safeguard the species. The link between the principle and the urgency is also very interesting, in the extent that on an international level, precautionary principle was in this case, the only mean to prevent an environmental damage.

Moreover, as the precautionary principle is related to the degree of scientific knowledge, it allows to invoke the adoption of particular measures, here, the stop of fishing, because it is scientifically possible, but not proved with certainty, that a risk is endangered.

This is why the ITLOS admitted that provisional measures were relevant, and states that “although the Tribunal cannot conclusively assess the scientific evidence presented by the parties, it finds that measures should be taken as a matter of urgency to preserve the rights of the parties and to avert further deterioration of the southern bluefin tuna stock”\(^{44}\).

From a critical point of view, it is a pity that the ITLOS did not explain more precisely the link between the urgency and the threat endangered by the SBT species. There is no real logical connexion between the legal condition and the facts of the case. The reasoning is a little bit to implicit. The syllogism leading to the final decision is thus blurred.

This case shows clearly how environment issues can be used in egocentric purposes. Indeed, SBT is a valuable fish. It is in the states' economical interest to commercialize it. But as the species is a highly migrant one, it enters in different states' territories. If Japan fishes too many of them before it migrates to Australian or New-Zealand territories, the latter countries can argue that it is contrary to the protection of the biomass and endangers to species, whereas the economical interest is probably more motivating the request.

\(^{44}\) Cases nos 3 & 4, Order of 27 August 1999, Whereas 80
2. WTO

2.1. **Hormones Case**: nature of the precautionary Principal and the SPS Agreement

This case deals with the complaint of the United States and Canada against the European Communities' prohibition of imports of meat and meat products derived from cattle to which either the natural hormones or the synthetic hormones had been administered for growth promotion purposes. This prohibition was set out in a series of Directives of the Council of Ministers that were enacted before 1 January 1995.

EC justified their prohibition with the argument that measures of precaution must be adopted towards these hormones “until a detailed examination of the effects of these substances could be carried out and until the EEC could take a decision on the use of these substances for growth promotion”. The argument was then the invocation of the precautionary principle, in the extent that the lack of scientific knowledge did not prevent the European Communities to take measures towards food products to safeguard the human health, because the risk assessment of the potential danger of hormones was high enough. The Panel's findings sentenced the European Communities, arguing that these sanitary measures were not based on a risk assessment as required in Article 5.1 of the SPS Agreement. Moreover, according to the Panel, the measures were “arbitrary or unjustifiable distinctions in the levels of sanitary protection […] which results in discrimination or a disguised restriction on international trade, [which is acting] inconsistently with the requirement contained in Article 5.5 of SPS Agreement”.

The European Communities in the appeal in front of the Appellant Body tries to argue that the precautionary principle is "a general customary rule of international law" or at least "a general principle of law", which allows the European Communities to prohibit such imports, on the ground that the scientific knowledge is not sufficient to prove that there is no risk when consuming such substances.

The Appellate Body does not give an opinion on this potentially customary nature, stating that it is not necessary. It states that in the working of the SBT Agreement, the precautionary principle is already taken into account in Article 5.7, which does not apply in this case. On the contrary, Art. 5.1 and 5.3 do apply, and do not allow the state to justify restriction of trade on this ground.

---

46 Agreement on the Application of Sanitary and Phytosanitary Measures
47 WT/DS26/R/USA, 18 August 1997
The Precautionary Principle in the European Union  2010

Of course, the Appellate Body probably does not want to create a precedent by recognizing this customary nature of the precautionary principle. This would require the task of checking in each state’s library the position of the state toward the Precautionary Principle. Moreover, we should keep in mind that the case takes place in 1999. USA and Canada already did not have the same understanding of the principal than the European Communities, or not to the same extent. The point was that, if precautionary principal is not customary law, then it cannot be used in the application of the SPS Agreement, and the prohibition was a violation of the SPS Agreement.

The Appellant Body confirmed the previous ruling of the Panel, stating that the relevant provisions of the SPS Agreement do not entail the precautionary principle. The reasoning is disappointing, because the result is equivalent as the denial, and not the non-recognition, of the precautionary principal customary nature.

2.2. **Variety testing**: Human health

The issue at stake in this case is the prohibition from Japan of the importation of eight agricultural products originating from the United States on the ground that they are potential hosts of codling moth, a pest of quarantine significance to Japan. The context is the same as in the “Hormones case”, which was settled one year earlier, and the precautionary principle is invoked to preserve the human health from any harm. Yet, the issue of the "sufficient scientific evidence" is more stressed in this ruling.

For the Panel, Japan violated this requirement of the sufficiency of the scientific evidence, as this state did not use the time on its disposal to acquire scientific knowledge to check the risk of harm. The Appellate body confirms this by interpreting the term sufficient as a “relative concept, [which] should be interpreted within the context, which is in this field based on risk assessment”\(^{50}\). In this case, the context is the SPS Agreement, and in particular the phrase "maintained without sufficient scientific evidence" in Article 2.2, includes Article 5.1 as well as Articles 3.3 and 5.7 of the SPS Agreement.

For the Appellate Body, Member State are allowed to introduce measures guaranteeing a higher level of protection than required on an international standard, yet only "if there is a scientific justification and the measure is not inconsistent with any other provision of the SPS Agreement"\(^{51}\). Interpreted with the Precautionary Principle, the Court notices that there is no actual casual link between the restriction and the risk endangered.

\(^{49}\) WT/DS76/AB/R, 22 February 1999, Japan – Measures affecting agricultural products
\(^{50}\) WT/DS76/AB/R, 22 February 1999, Japan – Measures affecting agricultural products, Whereas 73
\(^{51}\) WT/DS76/AB/R, 22 February 1999, Japan – Measures affecting agricultural products, Whereas 79
Moreover, Japan would not have proved to seek for a deeper scientific knowledge, allowing to justify or not the restriction, whereas the time for it has been long enough. There is thus no precaution to take towards the risk invoked by Japan.
3. European Court of Justice

3.1. Processing aids

The issue raised in this case is the status of a French Decree\(^52\), which is recognized as being a measure having equivalent effect to a quantitative restriction within the meaning of Article 28 EC. Indeed, the Decree requires a specific scheme concerning processing aids and foodstuffs in the preparation of which processing aids lawfully manufactured and/or marketed in other Member States have been used, thus restricting the freedom of goods within the internal market.

According to the Court, such a restriction can be lawful if it respects certain conditions:

- it must be accompanied by a procedure allowing economic operators to obtain the entry of that nutritive substance in the national list of authorised substances;

- an application for the entry of a nutritive substance on the national list of authorised substances may be rejected by the competent national authorities only if that substance poses a genuine threat to public health.

For evaluating the last condition in this case, the Court does not retain the sufficient level of risk for the human health. Indeed, on the contrary to additives and nutritive substances, processing aids are not substances added to foodstuffs and are only used in the process of “elaborating and manufacturing a foodstuff”\(^53\). Their trace in the finished foodstuff is thus rare and involuntary. For that reason, the Court sets out that a prior authorisation is an excessive measure, as it does not “threaten the same harmfulness to public health as additives or vitamins”\(^54\).

The authorisation could yet be relying on the Article 30 EC and the objective of protecting public health. When there is no harmonisation, the state can justify the measure in saying that the scientific knowledge is not sufficient, and “doubts subsist in the current state of scientific research”, so that it is up to the state to legislate as far in the protection of human health as it wants to.

\(^{52}\) Decree of 15 April 1912 laying down administrative regulations for implementing the Law of 1 August 1905 to prevent deception in the sale of goods and adulteration of foodstuffs, as amended on numerous occasions (‘the 1912 Decree’)

\(^{53}\) Case C333/08, 28 January 2010, Whereas 83

\(^{54}\) See above
Nevertheless, the state must prove that the legislation is necessary in order “effectively” to safeguard health. The prohibition “must be based on an in-depth assessment of the risk”\(^{55}\). The meaning of the Precautionary principle also includes the necessity of a real risk alleged for public health, which is sufficiently established on the basis of the latest scientific data available. This can be managed by stating “the degree of probability of harmful effects on human health from the addition of certain nutrients to foodstuffs and the seriousness of those potential effects”\(^{56}\).

If then the risk seems real, measures ensuring protection should be adopted “without having to wait for the reality and the seriousness of those risks to be fully demonstrated”\(^{57}\). According to the Court, the Precautionary principle works in two steps: the identification of the risk for health and the assessment of it. And if it is not possible to determine “with certainty the existence or extent of the alleged risk because of the insufficiency, inconclusiveness or imprecision of the results of studies conducted, but the likelihood of real harm to public health persists should the risk materialise, the precautionary principle justifies the adoption of restrictive measures, provided they are non-discriminatory and objective”\(^{58}\).

Regarding to the Decree of 1912, the Court concludes that the list in it is general; it “systematically” prohibits the marketing of processing and does not target a specific processing aids. The considerable quantity of processing aids cannot justify such an imprecise scope of the Decree.

This very didactic case-law, which really dissects the steps of the reasoning, gives a concrete use of the application of the Precautionary principle. The Court clearly sets the condition for the application of the principle; the identification of potentially negative consequences of a product, and the risk assessment of the threat to health. It also sets out the working of the Precautionary Principle towards the Proportionality principle -what is necessary to safeguard the human health and could not have been attained by measures which are less restrictive.

3.2. **Commission of the European Communities v. Denka International BV**\(^{59}\)

\(^{55}\) Case C333/08, 28 January 2010, Whereas 88  
\(^{56}\) Case C333/08, 28 January 2010, Whereas 89  
\(^{57}\) Case C333/08, 28 January 2010, Whereas 90  
\(^{58}\) Case C333/08, 28 January 2010, Whereas 93  
\(^{59}\) Case T334/07, 19 November 2009
3.2.1. Legal background

The Council Directive 91/414/EEC of 15 July 1991\(^{60}\) concerning the placing of plant protection products on the market (hereafter, the Directive) sets out that the competence of the Community in this field. It includes the rule that Member States must ensure that a plant protection product is not authorised unless its active substance is in the list of the Annex I of the Directive.

In its Article 5 (1) (a) the Directive lays down the condition for the inclusion of a product in this list, in accordance with the precautionary principle. Among other conditions, this one includes the most obviously this principle: “In the light of the current scientific and technical knowledge, an active substance shall be included in Annex I for an initial period not exceeding 10 years, if it may be expected that plant protection products containing the active substance will […] not have any harmful effects on human or animal health or on groundwater or any unacceptable influence on the environment”. On the contrary to the prevention principle, the link between the degree of scientific knowledge is clearly taken into account for assessing any risk to human or animal health, or the environment. If the applicant do not fulfil this conditions, he will not be granted the authorisation.

Nevertheless, Article 8 (2) of the Directive allows derogation to substances which are not listed in the Annex 1, and that can be temporary included in it “under specific circumstances”, for ground of foreseeability of law. The applicant must provide a dossier to the Rapporteur of the Member States (RMS), who will give his opinion about the inclusion or not of the product in the Annex in a draft assessment report (‘the DAR’), while reporting to the European Food Safety Authority (EFSA) and basing its decision in particular on the Scientific Committee and permanent Scientific Panels’ opinion.

3.2.2. The facts

The applicant, Denka International BV, is a company which markets dichlorvos and plant protection products based on dichlorvos, an organophosphate insecticide in greenhouses and post-harvest applications in stores. The applicant asked the RMS, in the time-limit, for the inclusion of dichlorvos in Annex I to Directive 91/414. Yet, the RMS recommended the non inclusion of it in the list because the scientific knowledge about this substance was not sufficient. But the RMS deemed also “that much essential information was missing”\(^{61}\) in the dossier. This is but surprising, because before giving his opinion, the RMS must decide if the dossier is complete or not, what he had approved in this case.

The applicant submitted anyway, on 16 August 2004, an expert report on chronic toxicity to the EFSA after he had been notified the DAR. A meeting brought the Member

\(^{60}\) OJ 1991 L 230, p.1
\(^{61}\) Case T334/07, 19 November 2009, Whereas 23
States’ representatives, the EFSA and the applicant together. Thereafter, the RMS published comments, in particular that “despite the data submitted by the applicant, questions remained concerning, in particular, the long-term toxicity and mutagenicity of dichlorvos”.

Following to this, the EFSA Pesticides Peer review Co-Ordination (‘the EPCO’) tried to answer to the question of the toxicity of dichlorvos, unsuccessfully. The situation was then referred to the EFSA’s scientific panels, the Scientific Panel on Plant health, Plant protection products and their Residues (‘the PPR Panel’). These exchanges between different institutions and departments are very interesting. First, it is surprising that a scientific panel interfere so late in the case, and we can wonder why such thorny issues are dealt by non-expert during so much time. Second, this complex working may be, on my opinion, so difficult because of the very essence of the precautionary principle. Indeed, there is a sensitive balance to operate between the right to health, to a healthy food and preserved environment on the one hand, and the economic prerogatives of firms on the other hand, whereas the lack of scientific knowledge prevent the authorities from finding any definitive, clear and easy solution.

Moreover, when there is no scientific certainty, authorities who make the decision know that they may be at stake in several decades, or even less, in the case that a sanitary scandal would break out. The political liability is very high, and therefore shared between several organs. This is but a personal understanding, and one could argue, that this complex tangle of competences is on the contrary a way to reach the best and most democratic decision.

But concerning the PPR in our case, it had been asked by the EPCO to answer two very concrete questions

1) Is it possible to identify a mechanism by which dichlorvos causes tumours and to set a threshold for the exposures needed before they appear?

2) Were the tumours observed in rats and mice relevant to the evaluation of the effect of dichlorvos on human health?

The case does not give that much details on the argument used to preclude the non-toxicity of dichlorvos, but it was the final conclusion. Indeed, on 6 June 2007, the Commission adopted a decision concerning the non-inclusion of dichlorvos in Annex I of the Directive and the withdrawal of authorisation for plant protection products containing that substance. In its recital 5, the decision lays down that “During the evaluation of this active substance, a number of concerns were identified. In particular, based on the available toxicological data and taking into account the uncertainties of the genotoxic and carcinogenic properties of the substance [and] also considering the overall poor

62 Case T334/07, 19 November 2009, Whereas 26
63 2007/387/EC
quality of the dossier, it has not been demonstrated that the estimated operator, worker and bystander exposure, is acceptable.”

The Commission itself seems to be aware of the lack of scientific justification to the withdrawal, so that it insists on its validity, by mentioning the “poorness of the dossier”. Of course, one of the arguments of the applicant in front of the Court was the lack of objective scientific justification of the decision of the Commission. Even more surprisingly, at Whereas 61, we learn that the EFSA report actually contradicted the PPR’s opinion. Why has this not been mentioned earlier in the very detailed summary of facts? My point is not to say that the final decision, precluding the inclusion of dichlorvos in the list of the Annex 1 of the Directive, is wrong, but that the reasoning is sometimes not convincing. It is inherent to the precautionary principle that there is no scientific complete evidence of the risk. There is thus no need to play with words and hide facts, which is on the contrary legally insecure. Such a blurred topic as the precautionary principle deserves clear, transparent and precise reasoning, even if the judge has to manage the political background of the decision.

3.2.3. The findings of the Court

When analysing the conclusion of the applicant that the PPR’s opinion is binding on the EFSA, the Court states that the PPR Panel made a distinction between genotoxicity and carcinogenicity, and that “as there is no equivalent to the forestomach of mice in humans, there was considerable scientific uncertainty as to the mode of action and relevance for humans of the forestomach tumours induced by dichlorvos in the mouse”. Consequently, “the evidence available appeared to suggest that those tumours would not occur at the levels of exposure that would be encountered in the proposed use of the active substance, in so far as severe systemic toxicity would occur before the tumours developed”. Nevertheless, the EFSA concludes: “the dossier contains no robust long-term study on carcinogenicity, it is not possible either to fix the ‘no observed adverse effect level’ (NOAEL) or to have a full picture of the toxicological properties of the active substance”.

The Court solve this conflict by reminding that the PPR Panel “but may not under any circumstances assume the role assigned to the EFSA in the preparation of the opinion”.

From infra 92 to 110, the Court analyses that the goal of the Directive, in particular in its Article 5(1)(b), is to ensure a high level of standard of protection, in particular for health, groundwater and the environment. Regarding the appreciation of the Commission, the Court reminds that the burden of proof is bear by the notifier and that the Commission enjoy a “broad discretion” in this complex field. When proceeding to the judicial review, notably about whether the facts admitted by the Commission have been accurately stated and

---

64 Case T334/07, 19 November 2009, Whereas 73
65 Case T334/07, 19 November 2009, Whereas 73
66 Case T334/07, 19 November 2009, Whereas 75
whether there has been a manifest error of assessment or a misuse of powers, the court enlarges three arguments:

1) The burden of proof is born by the applicant, who did not prove the non toxicity of dichlorvos in this case, as the dossier appears to be pretty poor.

2) Regarding the objectivity of the scientific statement of the toxicity of dichlorvos, the Court reminds the applicant that, as the safety of the active substance lies with him, he did not prove that there is no risk. The precautionary principle thus applies to this scientific background. As the assessment of the different scientific enquiries does not allow any certainty, the Commission was allowed to withdraw the authorization. The scientific basis for this is that “no definitive reference value has been confirmed; as definitive reference values were not agreed on, the risk assessment to operators, workers and bystanders is inconclusive; it is not possible to define a technical specification for dichlorvos; no analytical methods for ascertaining the residues of dichlorvos in soil, water, air, blood and animal tissues are available”\(^\text{67}\).

3) Concerning the alleged contradiction between the PPR Panel's finding and the Commission's decision, it is obvious that the Court cares about respecting the Commission's discretion, which is legally totally relevant of course. The Court notes that the EFSA reports the Panel's opinion, even if the Authority leaves this opinion behind.

From infra 114 to 119, the Court analyses the core working of the precautionary principle. It is unusual enough to be mentioned that the Court starts its syllogism on the basis of this principle, and moreover with the definition of it: “In accordance with that principle, where there is scientific uncertainty as to the existence or extent of risks to human health, the Community institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent”\(^\text{68}\).

The Court goes on with explaining how should be applied the principle: “Moreover, in a situation in which the precautionary principle is applied, which by definition coincides with a situation in which there is scientific uncertainty, a risk assessment cannot be required to provide the Community institutions with conclusive scientific evidence of the reality of the risk and the seriousness of the potential adverse effects were that risk to become a reality”\(^\text{69}\).

Thus, the contested decision is valid on the ground that first, there are available toxicological data and uncertainties of the genotoxic and carcinogenic properties of dichlorvos, second that the overall poor quality of the dossier could not prove the non toxicity of dichlorvos.

\(^{67}\) Case T334/07, 19 November 2009, Whereas 98

\(^{68}\) Case T334/07, 19 November 2009, Whereas 116

\(^{69}\) See above
The Precautionary Principle in the European Union

The precautionary principle thus fully applies, and the Court confirms the validity of the Commission's decision.

The Court concludes with requiring “solid evidence”\(^{70}\) in the domain of human health. “Reasonably doubts”\(^{71}\) as to the safety of a substance is enough to preclude a substance; the use of the Precautionary principle is indeed “to prevent potential risks”\(^{72}\). As a conclusion, the dichlorvos cannot be included in the list of Annex I of the Directive.

4. Interim conclusion

It is visible that the use of the precautionary principle is dependant of the wideness of the competences of the court which is applying it. Whereas the ITLOS must take into account that it deals with a temporary situation, as long as no arbitral court is composed, and the WTO also step in first when negotiations between States have failed, the ECJ has broader competences and can work easier. Indeed, its cases are much clearer and structured. It does not have to navigate between the same sovereignty or financial interests, not to be mentioned that its ruling are binding. Nevertheless, the ECJ must deal with other interests, then letting discretion to the Commission for instance constitutes quite an acrobat exercise when applying the precautionary principle.

But common points are yet apparent between the different Courts. The level of the risk assessment must be appropriate, not too low to endanger valuables objects, and not to high, not to restrict trade in an unbearable measure.

Among the cases presented in this chapter, the different Courts have always analysed this principle within the scope of very precise articles. On the contrary to emerging principles such as the one of Human Dignity, that contains the danger of legal insecurity through its vagueness and the blurred way it is applied, the Precautionary principle turns out to be an efficient legal tool.

IV. PRACTICAL ISSUES

By Nino Pallone

\(^{70}\) Case T334/07, 19 November 2009, Whereas 180
\(^{71}\) Case T334/07, 19 November 2009, Whereas 180
\(^{72}\) Case T334/07, 19 November 2009, Whereas 180
The Precautionary Principle in the European Union 2010

The precautionary principle is a relatively new concept in the legal sense since it has been fully recognized in the last 20 years. It is also a concept subject to controversy since the precautionary principle does not have absolute criteria. There is still some confusions about the terms of the debate and why should we apply this principle. In fact precautionary principle can even be deemed as unfair since on some grounds it can breaches, for instance, freedom of trade on a global level (see part III).

The main issue here is thus to define real and effective criteria on which companies and states of the European Union can rely on in order to comply with various regulations issued by the European Union legislative bodies.

Our main concern will be to describe some of the goals the European Union wants to achieve with the precautionary principle and how those goals are set.

1. The Best Available Technology

Firstly we will focus on the Best Available Technology (BAT), this concept was introduced as a key principle in the International Plant Protection Convention73, Directive 96/61/EC (Directive 2008/1/EC for codified version). This directive has been incorporated in most of the European Union states, for instance, in Irish law, by the Protection of the Environment Act of 200374. In order to abide with this directive, some sections of national law of European states have been amended to replace Best Available Technology Not Entailing Excessive Costs (BATNEEC) with BAT.

Thus, for industrial activities or else falling within the scope of the Directive and regulated by implemented Acts, BAT must be applied. BAT is defined in the EU Directive on integrated pollution prevention and control 96/61/EC 2.11 as the “most effective and advance stage in the development of an activity and its methods of operation, which indicate the practical suitability of particular techniques for providing, in principle, the basis for emission limit values designed to prevent or eliminate or, where that is not practicable, generally to reduce an emission and its impact on the environment as a whole:

“Techniques” shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

"Available" techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the

73 http://ec.europa.eu/environment/air/pollutants/stationary/ippc/index.htm
techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator.

"Best" shall mean most effective in achieving a high general level of protection of the environment as a whole. It also means that the licensee (the one who gets the technology) must prove he is able to use it in such a way that all the appropriate preventive measures are taken against pollution through the application of BAT. It is said in the recommendations that the use of similar technology is not precluded so far as it satisfy the requirements of BAT. The emphasis is placed on pollution prevention techniques.

The IPPC Directive 96/61/EC requires the determination of BAT to consider in particular the following, giving regard to the likely costs and advantages of measures and to the principles of precaution and prevention: the use of low-waste technology, the use of less hazardous substances, the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate. Comparable processes, facilities or methods of operation, which have been tried with success on an industrial scale, technological advances and changes in scientific knowledge and understanding. The nature, effects and volume of the emissions concerned. The commissioning dates for new or existing activities. The length of time needed to introduce the best available techniques. The consumption and nature of raw materials (including water) used in the process and their energy efficiency. The need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it. The need to prevent accidents and to minimize the consequences for the environment. The information published by the Commission of the European Communities pursuant to any exchange of information between Member States and the industries concerned on best available techniques.

75 http://scp.eionet.europa.eu/definitions/bat
2. Implementation of the risk assessment in the European Law

A very controversial subject is the risk management on the precautionary principle. This is mainly a science-based argument.

A Directive known as the Strategic Environmental Assessment (SEA) Directive, supplements the environmental impact assessment system for projects introduced by the EIA (environmental impact assessment) Directive by imposing an assessment, including an environmental report, during the preparation of a plan or programme and before its adoption or submission to the legislative procedure [Directive 2001/42].

The authorities and the public affected or likely to be affected by or having an interest in the decision-making process have the opportunity to express their opinion on the environmental effects of a draft plan or programme. Thus, for instance companies can express their disagreement.

A commentary of the European Commission of 2000 concerning this risk management is relevant. Here are some guidelines for its application in the precautionary principle: “Proportionality "Measures...must not be disproportionate to the desired level of protection and must not aim at zero risk". Consistency "measures...should be comparable in nature and scope with measures already taken in equivalent areas in which all the scientific data are available.". Examination of the benefits and costs of action or lack of action "This examination should include an economic cost/benefit analysis when this is appropriate and feasible. However, other analysis methods...may also be relevant". Examination of scientific developments "The measures must be of a provisional nature pending the availability of more reliable scientific data"... "scientific research shall be continued with a view to obtaining more complete data.".

These recommendations are essentially political and aimed at risk management, but the Commission by providing guidelines for use of the principle in a politically transparent process, while emphasizing the need for a careful review of scientific data, the EC commentary may help reduce the contentiousness of its application. The Commission certainly leaves a role for science in the process. The commentary does not have binding status as would a regulation or a directive (which are EU "laws"), but is a general guidance as to the basis of future Commission decisions.
Only limited case law exist on the principle. A decision by the European Court of Justice upholds a ban on the export of British beef into EU countries: "[I]n view of the seriousness of the risk [of bovine spongiform encephalopathy] and the urgency of the situation, the Commission did not react in a manifestly inappropriate manner by imposing, on a temporary basis and pending the production of more detailed scientific information, a general ban on exports of bovine [products]."\(^76\)

3. Identification of the risk

Concerning technological knowledge, according to the Commission the precautionary principle may be invoked when the potentially dangerous effects of a phenomenon, product or process have been identified by a scientific and objective evaluation, and this evaluation does not allow the risk to be determined with sufficient certainty [COM/2000/1].

The commission also established a “eco-label” for some products. It means that a competent body in the Member State, in which the product is manufactured, placed on the market for the first time or imported is responsible for deciding whether or not to grant the eco-label, after assessment of the ecological performance of the product in accordance with the general principles given in the Regulation and the specific criteria set by the Commission, assisted by a committee of representatives of the Member States. In this way, the Commission established the ecological criteria for several categories of manufactured products, including laundry detergents [Decision 95/365], dishwater detergents [Decision 1999/427, consolidated version 01.01.2003], indoor paints and varnishes [Decision 1996/13] and refrigerators [Decision 1996/703].

Prevention is also the objective of the Regulation on the "eco-audit" scheme, which allows voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme (EMAS)\(^77\) [Regulation 761/2001, consolidated version 01.01.2007]. This scheme is based on three elements: the establishment and implementation by the companies in question of environmental policies, programmes and management systems for their production sites; systematic, objective and periodical evaluation of the efficiency of these programmes and systems by independent verifiers; and annual information for the general public in the form of "environmental declarations" by companies participating in the system. A Community logo is meant to raise the profile of businesses determined to improve their environmental performance by participating in the scheme. In a Green Paper the Commission defined a strategy on an integrated product policy to promote production and consumption of greener products (such as low

\(^{76}\) Case E-180/96, United Kingdom of Great Britain and Northern Ireland v. Commission of the European Communities, 5 May 1998

\(^{77}\) http://ec.europa.eu/environment/emas/index_en.htm
emission cars), with three main objectives: to stimulate consumer demand for greener products by providing easily accessible, understandable and credible information and by using eco-labelling to inform consumers about the environmental performance of products; to strengthen business leadership in green production; to use a differentiated taxation mechanism applying reduced Value Added Taxes rates on products bearing an eco-label [COM/2001/68].

4. Interim Conclusion

The role of these three elements is to provide guidance for the precautionary principle. Even if the criteria are not yet clear, it is part of the science work to define which product is suitable for environment or how we should build our factories to have an more environmental friendly policy. There is a need to find a balance between innovation and protection of our environment and it is maybe the biggest challenge of the century for law to define this balance.
GENERAL CONCLUSION
# TABLE OF CONTENTS

INTRODUCTION ......................................................................................................................................... 1

I. THE PRECAUTIONARY PRINCIPLE ................................................................................................... 2
   1. General notions ................................................................................................................................. 2
      1.1. Definition of the precautionary principle ................................................................................. 2
      1.2. Legal origin of the precautionary principle ................................................................................ 3
      1.3. Key elements of the precautionary principle ............................................................................. 4
      1.4. Application of the precautionary principle ................................................................................. 4
   2. Comparison with other environmental principles .............................................................................. 6
      2.1. The polluter-pays principle ........................................................................................................ 6
      2.2. The preventative principle ........................................................................................................ 6
      2.3. The principle of integration ........................................................................................................ 7
      2.4. The public participation principle ............................................................................................. 7
   3. Areas of ruling ................................................................................................................................... 8
      3.1. Food safety and biotechnologies ................................................................................................. 8
      3.2. Waste treatment ........................................................................................................................ 8
      3.3. New technologies ....................................................................................................................... 9
      3.4. Biochemistry ................................................................................................................................ 9
   4. Conclusion: International sources .................................................................................................. 10

II. LEGAL SOURCES ............................................................................................................................. 11
   1. General Background ........................................................................................................................ 11
   2. Directives and Communications in the E.U. regarding the precautionary principle ....................... 13
      2.2. Council directive 91/689/EEC on hazardous waste amended by directive 94/31/EC .............. 13
      2.3. Communication from 2 February 2000 from the Commission .................................................. 13
      2.4. Council framework decision 2003/80/JHA on the protection of environmental law through criminal law ................................................................. 14
The Precautionary Principle in the European Union 2010

2.5. Article III - 233 of the European Constitution

3. The precautionary principle in national legislation: Germany, Italy, France, Belgium and Switzerland

3.1. Germany

3.2. Italy

3.3. France

3.4. Belgium

3.5. Switzerland

III. CASES OF LAW

1. The ITLOS : The Southern Bluefin Tuna Case

2. WTO

2.1. Hormones Case : nature of the precautionary Principal and the SPS Agreement

2.2. Variety testing : Human health

3. European Court of Justice

3.1. Processing aids

3.2. Commission of the European Communities v. Denka International BV

4. Interim conclusion

IV. PRACTICAL ISSUES

1. The Best Available Technology

2. Implementation of the risk assessment in the European Law

3. Identification of the risk

4. Interim Conclusion

GENERAL CONCLUSION

TABLE OF CONTENTS

COMMON BIBLIOGRAPHY
COMMON BIBLIOGRAPHY

- Legislation
  - EC Treaty.

- Doctrine
The Precautionary Principle in the European Union 2010


- Jurisprudence

- 27 August 1999, Nos. 3 and 4 Southern Bluefin Tuna cases, New-Zealand v. Japan; Australia v. Japan


- Case C-333/08, 28 January 2010, European Commission v. French Republic

- Case T-334/07, 19 November 2009, Denka International BV v. Commission of the European Communities