Marco Bocchi

The Reshaping of the Precautionary Principle by International Courts: Judicial Dialogue or Parallel Monologues?

Geneva Jean Monnet Working Papers 02/2016

CENTRE D'ÉTUDES JURIDIQUES EUROPÉENNES
Centre d'excellence Jean Monnet

UNIVERSITÉ DE GENÈVE

Cover : Andrea Milano

The Reshaping of the Precautionary Principle by International Courts: Judicial Dialogue or Parallel Monologues?

Marco Bocchi

PhD Candidate at University of Rome Tor Vergata,
School of Law

Geneva Jean Monnet Working Paper **02/2016**

Christine Kaddous, Director

Centre d'études juridiques européennes

Centre d'excellence Jean Monnet

Université de Genève - UNI MAIL

CENTRE D'ÉTUDES JURIDIQUES EUROPÉENNES
Centre d'excellence Jean Monnet

UNIVERSITÉ DE GENÈVE

ISSN 2297-637X (online)

Université de Genève – Centre d'études juridiques européennes
CH-1211 Genève 4

The Geneva Jean Monnet Working Papers Series is available at:
www.ceje.ch

Publications in the Series should be cited as:
AUTHOR, TITLE, Geneva Jean Monnet Working Paper No / YEAR [URL]

The Reshaping of the Precautionary Principle by International Courts: Judicial Dialogue or Parallel Monologues?

by

Marco Bocchi*

Abstract

(French version below)

The current debate on the precautionary principle (PP) has two fundamental aspects. It concerns, on one hand, its nature and purpose and, on the other hand, its interpretation and application. What is PP? Is it a general principle of international law or does its application depend upon the will of States? Are there different gradations of this principle in the various conventional systems? Which are its applying conditions?

In order to answer these questions, it is interesting to analyze the evolution of the international case law on the precautionary principle, both from a European perspective, in reference to the judicial dialogue between the EFTA Court and the Court of Justice of the European Union (CJEU) in the European Economic Area (EEA), and from a global perspective, examining the parallel monologues resulting from the case law of the World Trade Organization (WTO), the International Tribunal for the Law of the Sea (ITLOS) and the International Court of Justice (ICJ). I argue that the interpretation of the PP provided by the CJEU, the EFTA Court, the WTO's Judiciary, the ITLOS and, last but not least, the ICJ, is crucial in order to build an international consensus on its nature and purpose, as well as on its applicability. However, as it will be highlighted, courts tend to keep well separated theoretical evaluations of the principle with its application in practice. The preponderant role played by courts, even if not satisfactory in terms of legal certainty, presents the advantage of reshaping the principle according to the prevailing social, cultural and political values. Today, the courts' reflections on PP have led to an increasing convergence, which could be described as a positive process of harmonization. However, some aspects, such as the uncertainty of harm, risk assessment and burden of proof, remain problematic and courts apply different criteria for balancing the benefits of precaution against its economic costs.

Keywords: Precautionary Principle, Judicial Evolution, International Courts, Regulation, Environmental Law, Trade Law, Food Safety

* PhD Candidate at University of Rome Tor Vergata, School of Law (marco.bocchi@uniroma2.it).

Résumé

Le débat actuel sur le principe de précaution (PP) a deux aspects fondamentaux. Le premier aspect concerne sa nature et ses objectifs et le deuxième son interprétation et application. Qu'est-ce que c'est le PP? Est-ce un principe général de droit international ou son application dépend-elle de la volonté des Etats? Y at-il différentes gradations de ce principe dans les différents systèmes conventionnels? Quelles sont ses conditions d'application?

Afin de répondre à ces questions, il est intéressant d'analyser l'évolution de la jurisprudence internationale sur le principe de précaution, tant dans la perspective européenne, avec le dialogue judiciaire entre la Cour AELE et la Cour de justice de l'Union européenne (CJUE) dans l'Espace économique européen (EEE), que dans une la perspective globale, avec les monologues parallèles résultant par les approches de l'OMC, du Tribunal International du Droit de la Mer (TIDM) et de la Cour Internationale de Justice (CIJ). Je soutiens que l'interprétation du PP faite par la CJUE, l'OMC, la Cour AELE, le TIDM et, enfin, la CIJ, est cruciale pour construire un consensus international sur sa nature et ses finalités, ainsi que sur son application. Toutefois, les juridictions ont montré une tendance nette à maintenir la distinction entre leurs évaluations théoriques du principe et son application pratique. En outre, le rôle prépondérant joué par les tribunaux, même s'il n'est pas satisfaisant en termes de sécurité juridique, présente l'avantage de façonner le principe selon les valeurs sociales, culturelles et politiques qui prévalent. Aujourd'hui, les réflexions des juridictions internationales sur le PP ont conduit à une convergence croissante qui pourrait être décrite comme un processus positif de développement de l'harmonisation. Cependant, certains aspects, comme l'incertitude du préjudice, l'évaluation des risques et l'examen des mesures prises, restent problématiques et les tribunaux appliquent des critères différents pour mettre en balance les avantages de la précaution et les coûts économiques qui y sont liés.

Mots-clés : Principe de précaution, Evolution jurisprudentielle, Tribunaux internationaux, Réglementation, Droit de l'environnement, Droit du commerce international, Sécurité alimentaire

The Reshaping of the Precautionary Principle by International Courts: Judicial Dialogue or Parallel Monologues?

Overview

The growing interdependence of markets and the rise of economic globalization have transformed arbitration tribunals and international courts into key actors for the development of international law. To this end, the dialogue between international judges has become an essential feature. The CJEU is partner in the dialogue with many other regional and international courts, such as the European Court of Human Rights (ECtHR), the EFTA Court in Europe and the ICJ, the ITLOS and the WTO in a global context. Some of these connections are more institutionalized than others, but the judicial dialogue takes place outside of an institutional context.

At a European level, courts are more synchronized owing to the regulatory connections between treaties. For example, since its birth in 1994, the EFTA Court, has regularly referred to CJEU's decisions, not only because of the Article 6[1] of the EEA Agreement, but also in order to ensure a uniform interpretation of laws in the European economic space. Additionally, the CJEU has also started to make reference to the EFTA Court's decisions. These connections have enabled the European Courts to establish a meaningful judicial dialogue that has contributed to the evolution of many general principles of law both in theory, by developing their content, and in practice, by encouraging their application in concrete cases.

On a global level, connections between international courts are much feebler because of the lack of a regulatory framework. While the CJEU is often called upon to interpret the WTO Agreements and the Appellate Body (AB) frequently deals with same issues as the EU courts, the CJEU does not recognize the direct effect of the WTO Agreements in view of its special system of implementation. Nevertheless, that does not mean that the latter are

[1] Art. 6 EEA Agreement: "Without prejudice to future developments of case law, the provisions of this Agreement, in so far as they are identical in substance to corresponding rules of the Treaty establishing the European Economic Community and the Treaty establishing the European Coal and Steel Community and to acts adopted in application of these two Treaties, shall, in their implementation and application, be interpreted in conformity with the relevant rulings of the Court of Justice of the European Communities given prior to the date of signature of this Agreement".

not part of the EU legal order and cannot be used as interpretative tools[2]. However, the lack of connections shows that, even when courts address the same issues, their case law seems to reflect more parallel monologues rather than proper judicial dialogues. The ICJ judgments are rarely quoted by the CJEU, not because there is disagreement between them, but because the CJEU does not generally deal with the same issues as the ICJ[3]. Similar considerations apply to the ITLOS.

The case of the precautionary principle is a perfect example that shows how judges in different jurisdictions "*look different and behave differently*"[4] yet still share common values and a similar perception of their roles in their respective legal systems[5]. In fact, while in the EEA, the CJEU and EFTA interpretations have led to the creation of a common, European principle through a meaningful judicial dialogue, in a global context, the approaches of the WTO, ITLOS and ICJ are far more restrictive and show that the precautionary principle may not be yet considered a general principle of law. Although there is a significant convergence on the scope and purpose of the precautionary principle, the different application that it receives in practice shows that the osmosis is limited and is not the result of a proper dialogue but rather parallel monologues.

In order to clarify the genesis of the precautionary principle and to reconstruct its judicial evolution, the article is organized as follows. Section I aims to explain what the precautionary principle is by clarifying the notion and highlighting the differences with the concepts of prevention and prudence with which it is often confused. Subsequently, it also aims to illustrate its regulatory evolution, following its codification in international conventions. In Section II, the reshaping of the precautionary principle by international courts is considered. In order to provide a consistent and complete analysis of the principle's judicial evolution, the following sub-paragraphs will be exposed as follows. Sub-paragraph A) deals with the European approach, describing the CJEU's interpretation and the subsequent judicial dialogue with the EFTA Court up until the recognition of the precautionary principle of a general principle of EU law in the EEA. Sub-paragraph B) describes the international approach followed by WTO, ITLOS and ICJ, highlighting the existence of parallel monologues between the European courts, through which these tribunals share the same considerations about the nature and purpose of the precautionary principle, but not on its concrete application. Finally, Section III contains some conclusions on how the precautionary principle appears today, after being reshaped by international courts.

[2] *See* ROSAS Allan, "Case Annotation on Case C-149/96, Portugal v Council, judgment of the Full Court of 23 November 1999", Common Market Law Review, 2000, pp. 797-816; ROSAS Allan, "Implementation and Enforcement of WTO Dispute Settlement Findings: An EU Perspective", Journal of International Economic Law, 2001, pp. 131-144; ROSAS Allan, "With a Little Help from My Friends: International Case-Law as a Source of Reference for the EU Courts", The Global Community Yearbook of International Law and Jurisprudence, 2005, pp. 218 and 226-227.

[3] A relevant exception concerns the interpretation of the *rebus sic stantibus* clause as it follows from ICJ, *Gabcikovo-Nagymaros Project (Hungary/Slovakia)*, Judgment of February 17th 1997, ICJ Reports 1997, and CJEU, case C-162/96 *Racke* [1998], ECR I-3688.

[4] BELL John, Judiciary within Europe: a Comparative Review, Cambridge, 2006, p. 1.

[5] *See* CLAES Monica, "Are You Networked Yet? On Dialogues in European Judicial Networks", Utrecht Law Review, 2012, pp. 100-114.

I. Definition of the Precautionary Principle and its Codification in International Law

To define the content of the precautionary principle requires tracing the path that has allowed the transformation of a simple idea into an established legal principle, albeit one that is still elusive and changeable. A clear definition of the precautionary principle simply does not yet exist, neither in the field of philosophy nor that of the law, as its versatility, theoretically applicable to a wide variety of contexts, avoids circumscribing its content. In a very broad sense, the precautionary principle may be considered as a strategy to deal with situations in which the scientific understanding of potential risks is yet incomplete. In fact, the need to create a form of protection against possible harms stemming from situations characterized by uncertainty is as old as the history of the human thought. The father of modern medicine, Hippocrates, in the Fifth century b. C., theorized an early form of precautionary principle known by the Latin maxim "*primum non nocere*" that shifted the concept of precaution from a purely theoretical field to a scientific one.

The precautionary principle should be distinguished from two notions to which it is frequently assimilated: prevention and precaution. The former means an avoidance of objective and proven risks, while the latter means a limitation of hypothetical risks, based on evidence. The precautionary principle was established to face this latter category of risks by acting with precaution, which recalls the concept of prudence. While "precaution" and "prudence" are commonly used to refer to the same concepts, at an epistemological level, they have two different meanings: "prudence" indicates the capacity of wise deliberation, while the concept of "precaution" can be considered as an application of prudence in concrete cases that require a cautious attitude about possible consequences[6].

The concept of precaution has rapidly spread within the international legal framework, with particular reference to issues relating to environmental protection and human health[7]. In fact, the international debate on the precautionary principle was formalized for the first time in the World Charter for Nature (1982)[8]. Without expressly mentioning the principle, the World Charter for Nature contains a very strong precautionary approach extended to all the fields covered by it. In the following years, the principle was implicitly included in several conventions, even if not specifically mentioned in the texts. For example, a clear precautionary approach can be seen in the Vienna Convention (1985) for the protection of

[6] PIEPER Joseph, *La prudenza,* Brescia-Milano, 1999.
[7] *See* MARTUZZI Marco, TICKNER Joel, *The precautionary principle: protecting public health, environment, and the future of our children*, World Health Organization, 2005 and EWALD François, GOLLIER Christian, DE SADELEER Nicolas, *Le principe de précaution*, Paris, 2001.
[8] UN General Assembly, World Charter for Nature, 28 October 1982, A/RES/37/7, available at: http://www.refworld.org/docid/3b00f22a10.html (consulted on 21 July 2015).

the ozone layer[9] and in the Montreal Protocol (1987) on the protection of stratospheric ozone[10].

Nevertheless, it was in the context of the Organization for Economic Cooperation and Development (OECD) that the precautionary principle received its first clear expression. Starting with the Bremen conference in 1984, the series of North Sea conferences produced relevant documents concerning the principle. Even if those final documents were Ministerial Declarations and, therefore, not binding, they had a great impact on its subsequent evolution.

Another important recognition of the precautionary principle - in relation to the protection of the marine ecosystem – can be found in the decision n. 15/27 (1989) of the Board of Directors of the United Nations Environment Programme (UNEP)[11]. It expressly recommended that all states adopt this principle as the basis of their policies for the prevention and reduction of marine pollution, particularly concerning potential pollutants. The discussions raised in the framework of the OECD and UNEP inspired the conference of representatives of the Member States of the United Nations Economic Commission for Europe (UNECE), which took place in Bergen in 1990, to put in relation, for the first time, the concepts of precaution and sustainable development, thereby supporting a generalized application of the principle[12]. This broad conception of the precautionary principle was subsequently accepted and included in many other international documents[13]. The Rio de Janeiro Conference on Environment and Development (1992), still the largest international conference of modern history by number of participants, introduced the most relevant example of the precautionary principle in its general form. This Conference marked a very important event for the precautionary principle, because it essentially recognized its legal value. In fact, Principle 15 of the Rio Declaration on Environment and Development[14] reads: "*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*

[9] Vienna Convention for the Protection of the Ozone Layer, Vienna, 22 March 1985, United Nations, Treaty Series, vol. 1513, available at https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-2&chapter=27&lang=en (consulted on 21 June 2015).

[10] Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 16 September 1987, United Nations, Treaty Series, vol. 1522, available at https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-2-a&chapter=27&lang=en (consulted on 21 June 2015).

[11] UNEP Council Decision, Precautionary Approach to Marine Pollution, Including Waste Dumping at Sea, 25 May 1989, UNEP/GC/dec./15/27, available at http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=71&ArticleID=777&l=en (consulted on 21 June 2015).

[12] The Bergen Ministerial Declaration on Sustainable Development, adopted May 16, 1990, states, in Principle 7, that "in achieving a sustainable development, policies should be based on the precautionary principle. The measures for environmental protection must anticipate, prevent and combat the causes of environmental degradation. In the event of a threat of serious or irreversible damage, lack of full scientific certainty should not be an excuse for postponing measures to prevent environmental degradation".

[13] See, i.e., the Bamako Convention on the prohibition of import of hazardous wastes in Africa (1991), the Helsinki Convention on the protection and use of watercourses (1992) and the Helsinki Convention protection of the Baltic Sea (1992).

[14] United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992, Rio Declaration on Environment and Development, Principle 15, U.N. Doc. A/Conf.151/5/Rev.1, 31 ILM. 876, 879 (13 June 1992) available at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm (consulted on 21 June 2015).

certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation"[15]. This statement, while not legally binding, is not confined to a particular matter and is broad in application, serving to introduce measures to combat environmental harm before they it comes into existence. In addition, this Principle underlines the requirements of seriousness and irreversibility that the alleged damage must have in order to be invoked as a reason for the adoption of precautionary measures. Moreover, it is stressed the need that the measures taken should be appropriate to the result to be achieved (principle of proportionality) and effective from the point of view of cost-effectiveness.

The definition elaborated in Rio in 1992 represented the ground from which various international courts began to further elaborate its content. If until the early Nineties the precautionary principle was subject to a normative evolution, gradually expanding its scope and function through conventions and declarations, after the Rio Declaration the fundamental role in its development was played by judges. The predominance of judicial decisions in the evolution of this principle was not only due to the fact that environmental issues have increasingly become a source of disputes between States, but owing to the nature of the principle of precaution itself. In fact, given the multifaceted nature and purpose of this principle, the interpretations provided by international courts, even if they are not always satisfactory in terms of legal certainty, have the important advantage of continuously shaping the principle to the prevailing social, economic, political and cultural values. This has led to a more suitable application of the precautionary principle also in fields other than the environment, such as trade and food safety, according to its objectives and origins.

II. The Reshaping of the Precautionary Principle by International Courts

According to the statute of the ICJ, the general principles of law are one of the sources of international law. These can be identified by examining "*judicial decisions and the teachings of the most highly qualified publicists of the various nations*"[16]. While judgments of international tribunals generally lack an *erga omnes* binding force, they do "*acquire quasi-legislative value*" and help define these general principles[17]. As far as the precautionary principle is concerned, the decisions of tribunals, having substantially reshaped it during the years, are of significant value in clarifying its overall status in international law.

The *Trail Smelter* Case (1941)[18] offers an example of how international law approached questions such as risk assessment and burden of proof before the precautionary principle was

[15] *Id.*

[16] Art. 38, Statute of the International Court of Justice, available at http://www.icj-cij.org/documents/?p1=4&p2=2 (consulted on 21 June 2015).

[17] ICJ, *Asylum Case (Colombia/Peru)*, Judgment of November 20th 1950, ICJ Reports 1950, (Azevedo dissenting).

[18] Arbitral Tribunal, *Trail Smelter Case (United States/Canada)*, Judgment of March 11th 1941, Reports of International Arbitral Awards, Volume III, pp. 1905-1982. The dispute arose between Canada and the United States because of the harmful consequences inflicted on the cultivation of cereals by US farmers, caused by emissions of sulfur dioxide from industrial sites in Canada. When the United States complained, Canada agreed to submit the case to arbitration.

developed. As part of its decision, the arbitral tribunal placed the burden of proof on the claimant (the United States)[19] and explained that the standard of proof "*under the principles of international law [was] clear and convincing evidence*"[20]. That the case was "*of serious consequences*"[21] did not lower the standard or shift the burden of proof, as it might have after the development of the precautionary principle.

A. The Precautionary Principle in the EEA: a meaningful judicial dialogue between the CJEU and the EFTA Court

The attention paid by international law to the precautionary principle during the Eighties inevitably led the CJEU to deal with this principle. It is interesting to note that the EU Member States initially invoked the need to take precautionary measures not in order to avoid damages to the environment, but to prevent the introduction of certain potentially harmful substances into their territories, enlarging the scope of application of this principle. The first time that the CJEU gave its own evaluation of the precautionary principle[22] was into the Sandoz case (1983)[23] where it stated that "*[I]n so far as there are uncertainties in the present state of scientific research with regard to the harmfulness of a certain additive, it is for the Member States, in the absence of full harmonization, to decide what degree of protection of the health and life of humans they intended to assure, in light of the specific eating habits of their population*"[24]. Hence, the precautionary principle in the European Union was immediately united to trade issues, particularly in the food safety sector[25]. In fact, the Court has developed an approach permitting States to adopt measures in order to limit risks arising from the introduction of potentially harmful substances and practices, even when those measures involve an outright ban of entry of certain goods in the country[26]. The minimum threshold of risk here was the primary question under dispute.

---

[19] *See id* at 1964.

[20] *See id* at 1965.

[21] *See id* at. 1965.

[22] While the Sandoz Case (1983) was the first time when the Court explicitly provided an assessment of the precautionary principle, the first cases in which the CJEU held with it was the CJEU, case C-53/80 *Kaasfabriek Eyssen BV* [1981], ECR 409 and the CJEU, case C-227/82 *Van Bennekom* [1983], ECR 3883. In the Kaasfabriek Eyssen case (1981) the Court was asked to consider whether the prohibition in the Netherlands of the use of nisin as a food preservative was justified by reasons of protection of human health. Nisin, in fact, is an additive whose effects have not been verified with scientific certainty. The question that arises, then, is this: in the European common market, Member States may take precautionary measures to prevent the entry of a particular product in their territory in situations of scientific uncertainty? The Court answers to this question by stating that the art. 30 EC must be interpreted broadly and leaves a wide margin of maneuver to Member States in assessing the impact that certain products may have on public health. Therefore, if States believe that those products may be prejudicial, they have the right to take restrictive measures in order to prevent their import in internal markets. The same conclusion was supported in the Van Bennekom case (1983) in which the Court expressly speaks of a "serious risk to human health" as a suitable reason to ban harmful products.

[23] CJEU, case C-174/82, *Sandoz* [1983], ECR I-2445.

[24] *See id* at paragraph 16.

[25] *See* ALEMANNO Alberto, "The shaping of the precautionary principle by European Courts" *in* L. Cuocolo - L. Luparia (ed), *Valori Costituzionali e nuove politiche del diritto Scritti raccolti in occasione del decennale della rivista Cahiers Européens*, Halley, 2007, available at http://ssrn.com/abstract=1007404 (consulted on 13 June 2015) and STIRLING Andrew, RENN Ortwin, VAN ZWANBERG Patrick, "A framework for the precautionary governance of food safety: integrating science and partecipation in the social appraisal of risk", *in* Fisher E. et al. (ed), *Implementing the Precautionary principle: perspectives and prospects*, Cheltentham, 2006.

[26] *See* JIANG Patrick, "A Uniform Precautionary Principle under EU Law", Peking University Transnational Law Review, 2014, pp. 490-518;

More than ten years after the CJEU established the legal meaning of the precautionary principle, the Treaty of Maastricht (1992) formally recognized it in Article 130r(2) TEU. Curiously enough, the principle was not inserted in the context of the common commercial policy (as it would have been consistent with the previous case law of the CJEU) but in that of environmental policy, in accordance with the formulation emergent in international law[27]. While the CJEU had ruled on the precautionary principle in cases concerning food safety and risks posed by trade in goods in the judgments *Kaasfabriek Eyssen BV* (1981), *Van Bennekom* (1983) and *Sandoz* (1983), it had yet to apply this principle in environmental disputes. Nonetheless, the drafters of the Maastricht Treaty preferred to collocate the precautionary principle in environmental matters, placing it in a broader, yet more elusive, general framework. This solution has certainly slowed the evolution of the precautionary principle as a customary rule in EU law, but it has enabled states to find an important agreement about its inclusion in the Treaties.

The precautionary principle became crucial to EU law in the case related to Bovine Spongiform Encephalopathy (BSE), which led the Court's decisions in two cases concerning bans imposed by the Commission[28] to the importation of beef from the United Kingdom to prevent the spread of the BSE virus from animals to humans. In the case of *Commission v. United Kingdom* (1998)[29], the CJEU offered an extensive interpretation of article 130r(2), ruling that: "*[W]here there is uncertainty as to the existence or extent of risks to human health, the institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent*"[30]. The Court here avoided defining a threshold of risk, instead shifting the matter to a question of the presence of risk, which seems to comprise the key element in order to invoke the precautionary principle. For these reasons, the Court found that the ban imposed by the Commission was legitimate, although it avoided justifying its ruling in terms of the precautionary principle.[31]. As the legal basis of the precautionary principle in EU law was still controversial, a strong ruling on its role could have raised objections to its broad approach and hence been more harm than help.

[27] In fact, art. 130r (2) TEU stated: "Community 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 Community. 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. Environmental protection requirements must be integrated into the definition and implementation of other Community policies. In this context, harmonization measures answering these requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a Community inspection procedure".

[28] The bans were adopted with Decision 96/239/EC.

[29] CJEU, case C-106/96 *Commission v. United Kingdom*, ECR I-2729.

[30] *See id* at paragraph 139.

[31] *See* CHEYNE Ilona, "Taming the precautionary principle in EC law: Lessons from Waste and GMO Regulation", Journal for European Environmental & Planning Law, 2007, pp. 468-483;

A comprehensive regulation of the precautionary principle was later introduced in the Commission Communication of 02/02/2000[32]. While the Communication did not help to resolve undetermined questions such as the assessment of the threshold of risk[33], it provided ground for European courts to subsequently reshape the precautionary principle, basing its interpretation and application on the need to protect of human health and the environment, as manifested in concrete situations[34]. It could be argued that the courts favored a flexible approach to the principle and considered it as a dynamic tool useful for contrasting the potential risks inherent in all phenomena characterized by scientific uncertainty. In a curious coincidence, the EFTA Court had a pending case addressing exactly the same question at the time when the Commission was delivering the Communication. The case of *EFTA Surveillance Authority v. Norway*[35] concerned the prohibition by Norway of the importation of Kellogg's cornflakes fortified with vitamins and iron in the absence of a nutritional need of the population, notwithstanding the fact that these cereals had been legally produced in another Member State. Before the Court, Norway did not sustain that this fortification constituted a danger to public health, instead justifying its ban in accordance with the precautionary principle. However, the EFTA Surveillance Authority considered that Article 13 EEA[36] is identical in substance to Article 30 TEC[37] and does not allow the ban of imports without the submission of a clear declaration of a possible danger to the public health[38].

Faced with these two contrasting positions, the EFTA Court delivered a judgment that offered a broad application of the precautionary principle. The case is important because, while Article 6 EEA states that the EFTA Court is supposed to interpret provisions of the EEA agreement in line with the CJEU's case law, nothing is envisaged for new legal disputes, as was the case here. Therefore, the EFTA Court went beyond the interpretation of

[32] Communication from the Commission on the Precautionary Principle, February 2nd 2000, COM (2000) I.

[33] The Communication 2000/02/02 of the Commission agrees with the scope of the precautionary principle given by the CJEU, stating that, despite the fact that it is envisaged solely in relation to environmental protection in the treaties, "in practice, its scope is much wider, and specifically where preliminary objective scientific evaluation, indicates that 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". However, the Communication only points out what was already established and widely accepted in practice. In fact, the Communication states that "the States have the right to establish the level of protection", that "the precautionary principle should be considered within a structured approach to the analysis of risk" and that "the implementation of an approach based on the precautionary principle should start with a scientific evaluation […] identifying at each stage the degree of scientific uncertainty". However, the Commission does not address the central problem of quantifying the threshold of risk.

[34] *See* HEYVAERT Veerle, "Facing the consequences of the precautionary principle in European Community law", European Law Review, 2006, pp. 185-201.

[35] EFTA Court Case E-3/00 *EFTA Surveillance Authority v. Norway*, Judgment of April 5th 2001, Report of the EFTA Court, 2001.

[36] Art. 13 EEA: "The provisions of Articles 11 and 12 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality, public policy or public security; the protection of health and life of humans, animals or plants; the protection of national treasures possessing artistic, historic or archaeological value; or the protection of industrial and commercial property. Such prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between the Contracting Parties".

[37] Art. 30 TEC: "The provisions of Articles 28 and 29 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality, public policy or public security; the protection of health and life of humans, animals or plants; the protection of national treasures possessing artistic, historic or archaeological value; or the protection of industrial and commercial property. Such prohibitions or restrictions shall not, however, constitute a means of arbitrary discrimination or a disguised restriction on trade between Member States".

[38] On the need to ensure the equality of the EC and EEA rules, the CJEU shares the same approach as the EFTA Court by recalling the *Bellio* case (2004) in which it states that: "both the Court and the EFTA Court have recognized the need to ensure that the rules of the EEA Agreement which are identical in substance to those of the Treaty are interpreted uniformly".

the precautionary principle proposed by the CJEU. Relying on CJEU's ruling in Sandoz, the EFTA Court affirmed that: "*[I]n the absence of harmonization of rules, when there is uncertainty as to the current state of scientific research, it is for the Contracting Parties to decide what degree of protection of human health they intend to assure, having regard to the fundamental requirements of EEA law […]. It is within the discretion of the Contracting Party to make a policy decision as to what level of risk it considers appropriate. Under those conditions, a Contracting Party may invoke the precautionary principle, according to which it is sufficient to show that there is relevant scientific uncertainty with regard to the risk in question. That measure of discretion must, however, be exercised subject to judicial review.*"[39]. As stems from the judgment, the EFTA Court has given a central role to the precautionary principle by extending its applicability when there are possible threats to human health. However, the threshold of risk remained largely undefined.

The temporal circumstance in which this judgment was delivered (only few weeks after the publication of the Commission Communication) is crucial because it is at this time that the precautionary principle was emerging as a purely European, judicially-made principle[40]. In fact, the judicial dialogue had been kept alive by the CJEU in the year 2002, which could be called a turning point in the development of the precautionary principle.

In this year, the CJEU, through the Court of First Instance (CFI), delivered four judgments that represented a significant evolution of the principle in line with the interpretation given by the EFTA Court. In *Pfizer and Alpharma*,[41] the CFI made indirect reference to the EFTA's judgment by recognizing that it is for the States to decide the threshold of risk, specifying that "*[…] a preventive measure cannot properly be based on a purely hypothetical approach to the risk, founded on mere conjecture which has not been scientifically verified […] rather, it follows from the Community Courts' interpretation of the precautionary principle that a preventive measure may be taken only if the risk, although the reality and the extent thereof have not been fully demonstrated by conclusive scientific evidence, appears nevertheless to be adequately backed up by the scientific data available at the time when the measure was taken*"[42]. It stems from this judgment that it is insufficient to refer to a hypothetical approach for establish scientific certainty and this interpretation must also impose limits on the assessment of the threshold of risk. In fact, preventive measures may not be taken if the risk is founded on mere hypotheses because it must appear prospective,

[39] EFTA Court Case E-3/00 *EFTA Surveillance Authority v. Norway*, 73, paragraph 25. However, in this specific case, the EFTA Court found that Norway could not maintain its restrictive approach to fortified food for two reasons. First, the criteria on which Norway justified its ban were inconsistent because while the Norwegian Authorities were banning the import of fortified cornflakes, they continue to maintain as a matter of policy the fortification of brown whey cheese. In addition, Norway had not provided a comprehensive risk assessment in response to Kellogg's submission of its application for authorization. *See* ALEMANNO Alberto, *supra* note 28;

[40] *See* BAUDENBACHER Carl, "The Definition of the Precautionary Principle in European Law: a Product of Judicial Dialogue", *in* C. Baudenbacher, P. Tresselt, T. Orlygsson (eds), *The EFTA Court Ten Years On*, Oxford 2005, pp. 105-115.

[41] CJEU, case T-13/99 *Pfizer* [2002], ECR II-03305 and CJEU, case T-70/99 *Alpharma* [2002], ECR II-3495. Two pharmaceutical companies, Pfizer and Alpharma, asked the Court to annul Regulation 2821/98 because it prevented the authorization to use certain antibiotics as additives. The CJEU found in these cases that despite the uncertainty as to whether there was a link between the use of certain antibiotics as additives and increased resistance to those antibiotics in humans, the ban on the products was not a disproportionate, given the need to protect public health.

[42] CJEU, case T-13/99 *Pfizer* [2002], cit., paragraph 143-144.

according to the scientific data available. Subsequently, in *Solvay and Artedogan*[43], the CFI implicitly recalled the EFTA's ruling and strengthened the relevance of the precautionary principle as a general principle of law applicable when there are potential risks to human health. The CFI asserted with clarity that: "*The precautionary principle constitutes a general principle of Community law requiring the authorities in question […] to take appropriate measures to prevent specific potential risks to public health, safety and the environment, by giving precedence to the requirements related to the protection of those interests over economic interests"*[44]. Furthermore, the CFI also stated that: *"[T]he precautionary principle can be regarded as an autonomous principle stemming from the Treaty provisions*"[45]. Further occasion to continue the judicial dialogue came from a pending case before the CJEU, *Commission v. Denmark*[46]. In this judgment, the CJEU followed the approach taken by the EFTA Court in *EFTA Surveillance Authority v. Norway* (2001), showing a full consensus between the two sister courts on the precautionary principle's scope and nature, as well as on its interpretation and application. As the EFTA Court declared Norway's violation of the prohibition of the restriction of importations, the CJEU arrived at the same conclusion that Denmark had failed to satisfy the conditions under which the principle could be invoked. However, it should be noted that in his personal submissions before the Court, the Advocate General (AG) Mischo, despite having also recalled the EFTA judgment, came to a different conclusion and asserted that the ban imposed by the Danish government was justified by the need to protect human health according to the precautionary principle[47].

Some time later, the *Vitamine* Line of Cases (2004)[48] again envisaged the precautionary principle relying on its interpretation by the EFTA Court. Here, the CJEU was called to examine the practice of some Member States (France, Italy and the Netherlands) of subordinating the marketing of fortified foodstuff lawfully produced in other Member States to the condition that such enrichment must meet a need in the populations of the importing country. Considering that these countries relied on the precautionary principle to justify their restrictive measures, the CJEU, recalling the EFTA *Kellogg* case, stated that: "*a proper application of the precautionary principle presupposes, in the first place, the identification of the potentially negative consequences for health of the proposed addition of nutrients and, secondly, a comprehensive assessment of the risk to health based on the most reliable scientific data available and the most recent results of international research*"[49].

[43] CJEU, case T-392/02 *Solvay* [2002], ECR II-4555 and CJEU, case T-74/00, *Artegodan GMbH* [2002], ECR II-4945.
[44] *See id* at paragraph 121.
[45] *See id* at paragraph 122.
[46] CJEU, case C-192/01 *Commission v. Denmark* [2003], ECR I-09693. Denmark adopted a ban against a fortified cranberry juice in the lack of proof of a specific need of the population. The facts of the situation were largely similar to those of the Kellogg case. *See* SCHOLTEN-VERHRIJEN Irene, *Roadmap to EU food law*, The Hague, 2012 and SZAIJKOWSKA Anna, "The Impact of the Definition of the Precautionary Principle in EU Food Law", Common Law Market Review, 2010, pp. 173-196;
[47] Opinion of AG Mischo in case C-192/01, *Commission v. Denmark* [2003], cit.
[48] CJEU, case C-24/00, *Commission v. France* [2004], ECR I-01277; CJEU, case C- 99/02, *Commission v. Italy* [2004], ECR I-03353; CJEU, case C- 41/02, *Commission v. The Netherlands* [2004], ECR I-11375.
[49] Case C-192/01, *Commission v. Denmark* [2003], cit. paragraph 51; Case C- 41/02, *Commission v. The Netherlands* [2004], cit., paragraph 53.

Furthermore, in the same cases, the CJEU attempted to define the threshold of risk necessary and sufficient to invoke the application of the precautionary principle when it declared that: "*when it proves to be impossible 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 […] the precautionary principle justifies the adoption of restrictive measures*"[50]. However, the threshold of risk remains vague: the Court only states that Member States may take restrictive measures if the risk assessment shows the possibility of harmful consequences, even when the existence or the extent of the alleged risk cannot be determined with certainty. Nevertheless, it is notable that here the CJEU, for the first time, went beyond the simple condition of the existence of a hypothetical risk for the invocation of the precautionary principle[51].

Recently, the EFTA Court returned to problem of the precautionary principle in *Philipp Morris* (2011)[52]. Here, the Court determined the conditions under which EEA States may legally adopt bans of visual displays of tobacco products at points of sale under the EEA Agreement. As far as the precautionary principle is concerned, the question was whether a display ban could be justified on public health grounds under Article 13 EEA. In this judgment, the Court recognized that Article 13 constitutes an exception to the free movement of goods within the EEA and it must be restrictively interpreted, ruling that "*it is for the national court to identify the aims which the legislation at issue is actually intended to pursue and to decide whether the public health objective of reducing tobacco use by the public in general can be achieved by less restrictive measures than a visual display ban on tobacco products*"[53]. It follows that the Court recognized the power of national courts to determine the aims of restrictive measures and whether they are justified in order to protect public health. If so, such restrictions may fall under the application of Article 13. In addition, the Court found that this measure was legitimate "*as by its nature it seems likely to limit, at least in the long run, the consumption of tobacco products*"[54]. Even more importantly, the EFTA Court favoured a very broad application of the precautionary principle, arguing that: "*where the EEA State concerned legitimately aims for a very high level of protection, it must be sufficient for the authorities to demonstrate that, even though there may be some scientific uncertainty as regards the suitability and necessity of the disputed measure, it was reasonable to assume that the measure would be able to contribute to the protection of human health*"[55]. Curiously, the Court did not expressly mention the precautionary principle in reaching these

[50] Case C-192/01, *Commission v. Denmark* [2003], cit., paragraph 52; Case C- 41/02, *Commission v. The Netherlands* [2004], cit., paragraph 54.
[51] *See* SZAIKOWSKA Anna, *Regulating Food Law: Risk Analysis and the Precautionary Principle as General Principles of EU Food Law*, Wageningen 2012 and KHOURY Alexandros, "Is it Time for an EU Definition of the Precautionary Principle?", King's Law Journal, 2010, pp. 133-143;
[52] EFTA Court Case E-16/10, *Philip Morris Norway AS v Staten v/Helse-og omsorgsdepartementet*, Judgment of September 12th 2011, Report of the EFTA Court, 2011. The dispute concerned the interpretation of Articles 11 and 13 EEA, in particular, whether a rule prohibiting the visible display of tobacco products in retail outlets, such as that established under Norwegian law, constituted an unlawful restriction pursuant to Article 11 of the EEA Agreement, and if not, whether said display ban was proportionate for the purposes of Article 13 of the EEA Agreement. *See* ALEMANNO, "The Legality, Rationale and Science of Tobacco Display Bans after the Philip Morris Judgment", *in* European Journal of Risk Regulation, vol. 4, 2011, available at SSRN: http://ssrn.com/abstract=1948507 (consulted on 4 July 2015).
[53] Case E-16/10, Phillip Morris AS v. Norway, cit., paragraph 7.
[54] *See id*, paragraph 84.
[55] *See id*, paragraph 83.

conclusions, despite having followed a broad precautionary approach, far more comprehensive than that of previous cases in which the principle was explicitly recalled. In fact, as was previously done also by the CJEU in *Commission v. UK* (1998), the EFTA Court did not want to overburden the precautionary principle, avoiding its exposure to easy objections concerning its scope. Still, *Phillip Morris* represented a very new way of invoking the precautionary principle. Until this moment, this principle had always been invoked in situations of scientific uncertainty about potential harm, but this was the first time that this principle was invoked to stress the effectiveness of a policy option aimed at avoiding that harm.

The CJEU, likewise, dealt with the precautionary principle in two recent judgments: *Acino* (2014)[56] and *Fipa Group* (2015)[57]. In *Acino*, the CFI ruled that the Commission had properly exercised the broad discretion it enjoys in this area. As long as there is "*solid and persuasive evidence*" capable of raising "*reasonable doubts*" as to the declared composition of the products (and thus their safety), the Commission is required under the precautionary principle to take all appropriate measures, including a product recall, to prevent any potential risk to human health. In addition, the Court stated that there is no need for the Commission to produce clear evidence of an existing danger to public health. Thus, the CJEU considers that, in applying the ban, the Commission properly carried out its role as a supervisory body for compliance with EU law. These provisions did not comprise any form of trade restrictions, as they still required the respect for basic standards of protection for human health and the environment. Under this perspective, the Court considered the precautionary principle as one of the primary tools to ensure compliance with these provisions.

In *Fipa Group*, the CJEU was asked to verify if Article 191(2) TFEU and Directive 2004/35/EC[58] prevented the application of national legislation under which administrative authorities may require owners of polluted land to carry out preventive and remedial

[56] CJEU, case C-269/13, *Commission v. Acino* [2014], ECLI:EU:C:2014:255. In March 2013, Acino AG, a marketing authorization holder for eight centrally authorized medicines containing the active ingredient clopidogrel, was unsuccessful in getting the EU General Court to annul the EU Commission's decision to ban the sale of certain batches of four of its products and to recall those products already on the market. An EU inspection of the company's manufacturing site in India had revealed that the manufacturing process of clopidogrel failed to comply with the principles and guidelines of Good Manufacturing Practice (GMP). The inspection report did not find scientific evidence that these GMP breaches could have negatively affected the quality, safety or effectiveness of the products and thus presented a risk to human health. Following this, Acino submitted detailed reports supported by tests showing that the breaches did not in fact have any impact on the quality of its products and that there was no risk to human health. Making use of the procedure set out in Article 20 of Regulation 726/2004, the EU Commission nevertheless decided to immediately suspend the sale of the medicines containing the active ingredient manufactured at the Indian site and to withdraw such products from distribution. Acino disagreed with the severe nature of the Commission's actions and challenged their legality before the EU Court of First Instance (CFI).

[57] CJEU, case C-5334/13, *Ministero dell'Ambiente e della Tutela del Territorio e del Mare and Others v Fipa Group Srl* [2015], ECLI:EU:C:2015:140. The dispute concerned the possibility to oblige the owner of a site, who was not responsible for the damage, to bear the costs of preventive and remedial actions taken in response to environmental damage on the site. Between 2006 and 2011, two companies, Ivan and Fipa Group, became the owners of various plots of land in the province of Massa Carrara, in Tuscany. That land had been seriously contaminated by chemical substances as a result of the economic activities of the former owners. Although the new owners were not responsible for the pollution, the Italian authorities ordered them to erect a hydraulic capture barrier in order to protect the groundwater table. The Italian Public Administration justified the imposition of preventive measures relying on the precautionary principle, stating that they were necessary in order to protect the environment from a possible and serious harm. According to this approach, whether compatible or not with the "polluter pays" principle, the precautionary principle must be applied in any case, in order to avoid environmental damage.

[58] EU Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143, 30 April 2004, p.56, available at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02004L0035-20130718 (consulted on 20 June 2015).

measures, even if they had not contributed to the pollution. The CJEU found in its preliminary ruling that the operator is not required to bear those costs if he can prove that another person has caused the damage. On the one hand, the final judgment rejected the argument of the Italian Administration, which based the adoption of preventive measures on the precautionary principle; on the other hand, it did not seem that the Court intended to reduce the field of application of the precautionary principle. In fact, the Court carefully avoided referring to the precautionary principle in its judgment, employing it as a justification for requiring the payment of damages by individuals who were not responsible for causing them. Therefore, it could be argued that the Court did not want to use the precautionary principle as a wild card to spend every time it intended to strengthen its reasoning but, instead, it aimed to develop its content in line with its objectives and its nature.

In conclusion, the frequency with which the European courts have considered the precautionary principle and the deep attention that they have dedicated to it are such as to have given an important boost to the affirmation of the principle as a general principle of law in the EEA. The leading role played by the European Courts in reshaping the content of the precautionary principle is even more evident if one takes into consideration the consequences that their rulings have had on the approach later adopted by other international tribunals, such as the WTO, ITLOS and ICJ[59]. In fact, after years denying the legal relevance of the precautionary principle, these tribunals have begun to consider it as a key element in cases where the environmental safety and human health are in conflict with the economic and commercial interests of States. As will be explain in the following paragraphs, while the international case law is not consistent enough to support the idea of an ongoing judicial dialogue between the European courts and international tribunals, it is certainly possible to find an osmosis in the interpretation of this principle that helps in improving its status in the international framework.

B. The Precautionary Principle at an international level: parallel monologues in WTO, ITLOS and ICJ case law

The judicial evolution of the precautionary principle is not a uniquely European phenomenon but is part of a larger context that also involves international courts. The case law of the WTO, ITLOS and ICJ is interesting because, despite their very different approaches, they provided an essential contribution in reshaping the precautionary principle. Unlike their European partners, these courts have not recognized it as a general principle of law and they have been very reticent about its application in concrete cases. However, a high degree of convergence is clear if the nature and purpose of the precautionary principle are considered. This has turned the European judicial dialogue into international parallel monologues. These courts have now recognized the theoretical importance of this principle and

[59] See sub-paragraphs B) and C).

its legal meaning: before the CJEU-EFTA judicial dialogue these evolutions in interpretations were not obvious nor predictable. In addition, the different perceptions have largely depended on the context in which the principle is invoked. To apply the precautionary principle, the WTO, ITLOS and ICJ have focused more on the burden of proof than on the threshold of risk and they have arrived at very different conclusions. However, it is not possible to describe these approaches following a consistent guideline: their case law shows a fluctuating interpretation of the principle which is due to the large amount of pressures and interests always present in international disputes.

In the WTO system, international trade law is based on the free movement of goods under Article IX[60] of the GATT Agreement (1994). This article is of capital importance in WTO law and only a few exceptions to this rule are permitted. Among them, those related to the precautionary principle are found in Article XX[61] and in Article 5.7[62] of the Sanitary and Phytosanitary Measures Agreement (SPS), which explicitly considers the possibility of adopting measures with the aim of protecting human, animal or plant life, exhaustible resources and human health, even in cases of scientific uncertainty[63]. However, these provisions are considered exceptional, as they cannot justify the adoption of measures restricting freedom of trade except in extraordinary cases.

As far as this is concerned, it is possible to define two different approaches developed by the WTO's Dispute Settlement Body (DSB). With the first approach, the DSB has essentially denied the legal significance of the precautionary principle as such, recognizing the power to apply restrictive trade measures only in situations of scientific certainty. Moreover, the burden of proof falls on those who wanted to apply such restrictions. For example, in the *Thai Cigarettes* Case (1990)[64], the WTO Panel declared "*not necessary*" a restrictive measure

[60] Art. IX GATT: "Each contracting party shall accord to the products of the territories of other contracting parties treatment with regard to marking requirements no less favourable than the treatment accorded to like products of any third country. The contracting parties recognize that, in adopting and enforcing laws and regulations relating to marks of origin, the difficulties and inconveniences which such measures may cause to the commerce and industry of exporting countries should be reduced to a minimum, due regard being had to the necessity of protecting consumers against fraudulent or misleading indications. […] As a general rule, no special duty or penalty should be imposed by any contracting party for failure to comply with marking requirements prior to importation unless corrective marking is unreasonably delayed or deceptive marks have been affixed or the required marking has been intentionally omitted […]".

[61] Art. XX GATT: "Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: (a) necessary to protect public morals; (b) necessary to protect human, animal or plant life or health; […] (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption. […] Provided that any such measures shall be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products, and that any such measures, which are inconsistent with the other provisions of the Agreement shall be discontinued as soon as the conditions giving rise to them have ceased to exist".

[62] Art. 5.7 SPS Agreement: "In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organizations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time".

[63] *See* ANSARI Abdul Haseeb, "The application of precautionary principle under the SPS Agreement by the WTO DSS: an analytical appraisal", Indian Journal of International Law, 2013, pp. 206-241; LAOWONSIRI Akawat, "Application of the Precautionary Principle in the SPS Agreement", Max Planck Yearbook of United Nations, 2010, pp. 565-623 and HASBUN Sergio Amador, "The Precautionary Principle in the SPS Agreement", Zeitschrift für europarechtliche Studien, 2009, pp. 455-490.

[64] WTO Panel, DS-3, *Restrictions on the Importation of and Internal Taxes on Cigarettes in Thailand*, judgment of November 7th 1990, WTO Report, 1990. Thailand prohibited the importation of cigarettes but authorized the sale of domestic cigarettes. Moreover, foreign cigarettes were

taken on the ground of Article XX (b) GATT in order to protect public health from an uncertain risk stemming from the chemical composition of the banned cigarettes and tobacco products. Later, in *Tuna and Dolphins I* (1991) and in *Tuna and Dolphins II* (1994)[65], the WTO panel felt, once again, that banning yellowfin tuna and tuna products was not necessary to protect dolphins and the marine environment. The panel found that the only way to protect dolphins would be for intermediary nations to change their policies and practices, which was not within the original scope of the GATT to regulate.

Subsequently, the WTO became aware of the increasing importance that the precautionary principle was playing in international law and began to inquire into its real nature and scope in greater depth. In the *Shrimp* case (1998)[66], the Panel found that the United States' ban established an unjustifiable discrimination because it prevented access to market under unilateral conditions. However, the AB adjusted this finding by raising some questions about the precautionary principle and, more generally, about the relationship between the WTO trade regime and environmental law. Critically, the Body felt the need to explain its position on this principle in its reasoning. In fact, it stated that, in reaching these conclusions, it had not: "*decided that the protection and preservation of the environment is of no significance to the Members of the WTO. Clearly, it is.*"[67] Even more clearly, the AB specified that it was not declaring that "*the sovereign nations that are Members of the WTO cannot adopt effective measures to protect endangered species, such as sea turtles. Clearly, they can and should*"[68]. The AB also provided an analysis of unjustifiable discrimination that seemed to give it a broader scope than in previous judgments. In fact, the AB pointed out that there was no definition of unjustifiability within the GATT, but that there must be more than a mere violation of another treaty provision, since exceptions to the general rules were provided by Article XX. The AB's reasoning appears to allow the use of the precautionary principle as a guide to legitimate environmental policies not only under Article XX(g), but also in assessing whether any resulting discrimination is justifiable or not.

With the second approach, on the other hand, the DSB showed an awareness of the role of the precautionary principle as justification for trade restrictions on products that are

subject to an excise tax, a business tax and a municipal tax. The United States complained that the import restrictions were inconsistent with GATT, while Thailand argued that the import restrictions were justified under Article XX(b) because the government had adopted measures that could only be effective if cigarette imports were prohibited and because chemicals and other additives contained in US cigarettes might make them more harmful than Thai cigarettes.

[65] WTO Panel, DS-4, *Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, judgment of September 3rd 1991, WTO Report, 1991 and WTO Panel, DS-29/R, *Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, judgment of May 20th 1994, WTO Report, 1994. These disputes involved the United States embargoes on yellowfin tuna and yellowfin tuna products imported from Mexico and other countries that use purse seine fishing methods which have resulted in a high number of dolphin kills. As far as the Art. XX(b) is concerned, the United States claimed that the measures were necessary to achieve the policy goal of protecting the life and health of dolphins, and that they met the requirements of the preamble to Article XX.

[66] WTO Appellate Body, DS-58/61, *Import Prohibition of Certain Shrimp and Shrimp Products*, judgment of November 6th 1998, WTO Report, 1998.

[67] *See id* at paragraph 185.

[68] *Supra.*

potentially harmful to the health of individuals. In the Hormones Case69, the Panels and then the AB found that the EC ban was inconsistent with Articles 3.3 and 5.1 of the SPS Agreement because a WTO Member could not unilaterally restrict the trade in products based on hypothetical risks. Nevertheless, the AB started to converge with the CJEU's view of the precautionary principle: in fact, while the CJEU in Commission v. United Kingdom (1998) found that the European Commission was entitled to set its own level of protection, in Hormones, the AB underlined that Article 5.7 permits provisional measures in cases where there is scientific uncertainty, which is substantially the same as recognizing the existence of the precautionary principle. It stems from the AB's reasoning that even if the precautionary principle cannot not be used to circumvent the clear meaning of the provisions, it may be invoked for potential risks in the case of scientific uncertainty70.

The *Asbestos* case (2001)[71] is undoubtedly a turning point in the WTO's approach on the precautionary principle. Here the AB's reasoning significantly approached that of the CJEU and EFTA by recognizing that the assessment of risks to human health is a key consideration in the resolution of a dispute. The AB made clear that the precautionary principle should be taken into account in all cases in which there is a considerable body of evidence of a possible risk to human health. The implications of this finding are relevant because the AB recognized, for the first time, that Member States may choose their own level of protection based on a precautionary approach, while it stated that in the WTO law there is no absolute requirement of scientific justification. Therefore, the burden of proof was lowered for the claimant: restrictive measures can be taken also in the case of possibility of risks to human life.

Unfortunately, *Asbetos* did not represent the beginning of a new interpretative approach to the precautionary principle in the WTO jurisprudence, but has remained an isolated case. In fact, in the *Biotech* case (2006)[72], the AB returned to the idea that restrictive measures could only be justified if the possibility of harm is scientifically proven, thus demanding concrete evidence of a probable risk, returning to a notion of precaution that is confused with that of prevention. Therefore, *Biotech* is not only a missed opportunity to develop the

[69] WTO, Appellate Body, DS-48, *Measures Concerning Meat and Meat Products (Hormones)*, judgment of January 16th 1998, WTO Report, 1998. Following some cases of illness due to the presence of hormones in meat, which occurred in Europe in the Seventies and early Eighties, and on the basis of scientific studies that had questioned the safety of some growth hormones, the European Community issued, between 1981 and 1996, several directives (81/602/EEC; 88/146/EEC; 88/299/EEC and 96/22/EC) that imposed a ban on the import and trade of all substances containing hormones. The United States and Canada, countries where the treatment of cattle with hormones is lawful, alleged that they had suffered damage from the European ban and made recourse to the WTO judiciary.

[70] *See* CHEYNE, Ilona, "Gateways to the precautionary principle in WTO law", Journal of Environmental Law, 2007, pp. 155-172.

[71] WTO Appellate Body, DS-135, *Measures Affecting Asbestos and Products Containing Asbestos*, judgment of March 5th 2001, WTO Report, 2001. This judgment concerned a French measure that prohibited the sale or use of materials containing asbestos. Nevertheless, the French measure allowed the use of other materials which served the same purpose of asbestos materials and which also posed risks to human health. Canada contested the French ban because it introduced a discrimination which violated Article III GATT.

[72] WTO Panel DS-291, *Measures Affecting the Approval and Marketing of Biotech Products*, judgment of September 29th 2006, WTO Report, 2006.

precautionary approach in the WTO system: it also eliminates the function of the precautionary principle as a parameter for assessing and protecting against risks arising from the trade in products which are potentially hazardous to human health.

As far as the ITLOS case law is concerned, its caution in invoking the precautionary principle is due not only to its uncertain status, but also to the commercial interests of States involved in marine-environment disputes[73]. In the *Bluefin Tuna* Case (1999)[74], the ITLOS found that there was "*scientific uncertainty regarding measures to be taken to conserve the stock of southern bluefin tuna*"[75] and that was a risk of "*deterioration of the southern bluefin tuna stock*"[76] and of "*serious harm*"[77] to the bluefin tuna, so granting provisional measures in favor of the claimant[78]. Thus, the ITLOS based its decision on a precautionary approach by allowing the claimants to take remedial measures, implicitly lowering the burden of proof for invoking the precautionary principle and shifting it, in part, onto the respondants.

Three years later, ITLOS ruled on the *MOX Plant* Case (2001)[79]. In this judgment, the ITLOS followed a very different reasoning from the *Bluefin Tuna* Case. The tribunal recognized that possible risks should be avoided by taking proportional measures, but in the specific case there was no urgent need to authorize them based on the reasons alleged by the State that invoked the precautionary principle (Ireland). Furthermore, this reasoning seems to lower the burden of proof for the claimant. In fact, if the claimant does not provide proof that a serious harm may originate from a specific action, no measures can be justified by the precautionary principle[80]. The alleged risk was similar in *MOX Plant* and *Bluefin Tuna*: in both cases the states took action based on the precautionary principle and

[73] *See* SAGE-FULLER Bénédicte, *The Precautionary Principle in Marine Environmental Law*, Routledge, 2013; TANAKA Yoshifumi, *The International Law of the Sea*, Cambridge, 2012.

[74] ITLOS, *Southern Bluefin Tuna Cases (New Zealand/Japan; Australia/Japan), Provisional Measures*, Judgment of August 3rd and 16th, 1999, ITLOS Report 1999. The case concerned a dispute on the Convention for the Conservation of Southern Bluefin Tuna. In order to limit the catch of Bluefin Tuna, this treaty grants a total allowable catch for each Member States. The dispute arose when Japan exceeded the limit allowed by the Convention, claiming the additional catch was experimental. Two of the other Member States, specifically Australia and New Zealand, brought a suit against Japan explicitly invoking the precautionary principle. In its decision, ITLOS rejected the defendant's claim of an "experimental additional catch" and ordered Japan to not increase the limit fixed in the Convention. See also CADDELL Richard, *Shipping, Law and the Marine Environment in the 21st Century*, Witney, 2013; and DE SADELEER Nicolas, "The Precautionary Principle as a Device for Greater Environmental Protection", Review of European Community and International Environmental Law, 2009, pp. 3-10.

[75] ITLOS, *Southern Bluefin Tuna Cases (New Zealand/Japan; Australia/Japan), Provisional Measures*, cit., paragraph 79.

[76] *See id.* at 80.

[77] *See id.* at 77.

[78] *See* KAZHDAN Daniel, "Precautionary Pulp: Pulp Mills and the Evolving Dispute between International Tribunals over the Reach of the Precautionary Principle", Ecology Law Quarterly, 2011, pp. 527-552 and TROUWBORST Arie, "The Precautionary Principle and the Ecosystem Approach in International Law", Review of European Community and International Environmental Law, 2009, pp. 26-37.

[79] ITLOS, *MOX Plant Case (Ireland/United Kingdom), Provisional measures,* Judgment of November 19th 2001, ITLOS Report 2001. The plant was designed to recycle the plutonium produced during the reprocessing of nuclear fuel. Ireland contested this project since its beginning and requested access to information from the UK about the plant in order to protect the marine environment of the Irish Sea. Concerned with the possible pollution in the Irish Sea, Ireland submitted the case to the Permanent Court of Arbitration. At the same time, Ireland requested that ITLOS enjoin the United Kingdom from opening the mill. Ireland based its requests on the precautionary principle, claiming a risk of irreparable harm and arguing that the burden of proving the safety of the MOX plant was on the United Kingdom. The latter claimed that the risk of pollution from the MOX plant was minimum and it agreed with the request to not increase the amount of nuclear waste transported to or from the original plant.

[80] *See* SANCIN Vasilka, *International Environmental Law: Contemporary Concerns and Challenges,* Ljubljana 2012 and OYAMA Kaè, "Protection of the Marine Environment and Balancing the Precautionary Principle with Freedom of Navigation", Keio Law Review, 2010, pp. 450-464.

stressed that the respondant must offer proof that its action would not endanger the environment[81]. However, only in *Bluefin Tuna* ITLOS grant provisional measures under the precautionary principle.

The ICJ has also contributed to the evolution of the precautionary principle in international law even if this tribunal has followed a far more restrictive approach than those offered by the European courts, and even by the WTO and the ITLOS. In the view of the ICJ, the persistent uncertainties and contradictions regarding its definition have significantly limited its affirmation as a general principle of international law[82]. The precautionary principle was first invoked before the ICJ, by New Zealand in *Nuclear Tests* (1995)[83] and, later, by Hungary in *Gabcikovo Nagymaros* (1997). In these cases, the precautionary principle was mentioned solely in dissenting and separate opinions, never in the judgments themselves. Therefore, while the WTO and the European courts have increasingly accepted the precautionary principle in matters of international environmental law and food safety, the ICJ has proved to be far more reticent to do so.

In *Nuclear Tests*, while the ICJ did not rule on the merits because France had withdrawn its consent to be submitted to the ICJ jurisdiction, judge Weeramantry gave an implicit assessment of the precautionary principle invoked in the New Zealand's claim in his dissenting opinion. Stressing that the ICJ had jurisdiction over the dispute[84], he found that nuclear tests pose a threat of a possible and preventable harm to the environment and that "*the burden of proving safety lies upon the author of the act complained of*"[85]. While judge Weeramantry does not explicitly refer to the precautionary principle, his reasoning is clear: the court should provide a remedy if there is a threat of environmental harm, and moreover it is on the defendant to demonstrate that such harm is not likely.

Another case in which the ICJ dealt with the precautionary principle is the famous *Gabčikovo-Nagymaros*. In 1977, Czechoslovakia and Hungary agreed to build a dam on the Danube. Following the division of Czechoslovakia, which led to the creation of the Czech Republic and Slovakia, Hungary suspended work claiming a "*state of ecological necessity*" related to the building of the dam. Slovakia protested and filed a claim before the ICJ. In its judgment, the Court found that there was no "*ecological necessity*" given that the alleged harm deriving from the project was uncertain, and demanded that Hungary offer proof that Slovakia was the party responsible for the potential damage to the environment[86]. Thus, the

[81] *See* GILLESPIE Alexander, "The Precautionary Principle in the Twenty-first Century: A Case Study of Noise Pollution in the Ocean", The International Journal of Marine and Coastal Law, 2007, pp. 61-87.
[82] *See* NLIAM Sylvester Oscar, "International oil and gas environmental legal framework and the precautionary principle", African Journal of International and Comparative Law, 2014, pp. 22-39; DE SADELEER Nicolas, *Implementing the Precautionary Principle: Approaches from the Nordic Countries, EU and USA*, London, 2007.
[83] ICJ, *Nuclear Tests (New Zealand/France)*, Judgment of September 22nd 1995, ICJ Reports 1995.
[84] *See* KAZHDAN Daniel, supra note 79.
[85] ICJ, *Nuclear Tests (New Zealand/France)*, 1995, cit. paragraph 502-03 (Weeramantry, J., dissenting).
[86] ICJ, *Gabcikovo-Nagymaros (Hungary/Slovakia),* 1997, cit., paragraph 41–43.

ICJ seemed to implicitly reject the precautionary principle, as it refused to consider an uncertain harm as sufficient justification to take preventative measures. Nevertheless, a more careful analysis of the judgment reveals that it was not a refusal to apply the precautionary principle as such, but a total rejection of the reasons alleged by Hungary for the suspension of the treaty.

In the last few years, the ICJ has dealt more directly with the precautionary principle in *Pulp Mills* (2008)[87]: this was the first case in which the principle was mentioned in a judgment. However, here the Court pointed out what had already been clarified by its silence in *Nuclear Test* and *Gabcikovo Nagymaros*: in the Court's view, the precautionary principle is not a rule of law that gives rise to obligations and, therefore, it cannot be invoked as a ground of justification for the adoption of precautionary measures. The dispute arose from a conflict between Argentina and Uruguay. Here the claimant (Argentina) had championed a broad reading of the precautionary principle in bringing its case against Uruguay. In fact, Argentina sustained, based on the precautionary principle, that Uruguay should bear the burden of proof that the pulp mills do not cause environmental harm.

The ICJ delivered a final judgment in which it not only rejected Argentina's claim, but also gave the precautionary principle a very narrow interpretation. First, the Court declined the claim for the shifting of the burden of proof, stating that: "*[W]hile a precautionary approach may be relevant in the interpretation and application of the provisions of the Statute, it does not follow that it operates as a reversal of the burden of proof*"[88]. Therefore, the ICJ required Argentina to offer proof of the potential environmental harm that it claimed. Furthermore, the Court ruled that, even if Uruguay had violated its procedural obligations[89], the concession of a permit to build the pulp mills does not violate any substantive obligations. The ICJ explained its position arguing that "*in the absence of convincing evidence that this is not an isolated episode but rather a more enduring problem, the Court is not in a position to conclude that Uruguay has breached the provisions of the 1975 Statute*"[90]. Furthermore, the ICJ rejected also Argentina's request to apply provisional measures as it found that the mills were sufficiently safe and that possible harm due to the mills activities was neither imminent nor irreparable.

[87] ICJ, *Pulp Mills (Argentina/Uruguay),* Judgment of April 20th 2010, ICJ Reports 2010. In 2003 and 2005 two private companies received permission from Uruguay to build pulp mills on the Uruguay River that represents the natural border between Argentina and Uruguay. The river is protected by the Statute of the River Uruguay (1975), which requires both parties to inform the other of any project which might affect the river. The Treaty also established the Administrative Commission of the River Uruguay (CARU). The Treaty provides that if there is a disagreement between the parties about the construction or modification of existing structures, the case may be submitted to the ICJ. Argentina claimed that the Uruguay had not asked for permission to build the mills and ignored the CARU. Uruguay countered that the Treaty does not require that permission be previously obtained, but merely that the other part be appropriately informed, as it had done.
[88] ICJ, *Pulp Mills (Argentina/Uruguay),* cit., paragraph 164.
[89] The ICJ ruled that Uruguay had violated its procedural obligations to Argentina. In fact, while Uruguay had previously notified CARU of its plan, then it had not responded to CARU's requests for additional documentation to show that there would be no significant environmental harm. Moreover, Uruguay had violated its obligation to notify Argentina in a timely manner of its plans to grant the pulp mills a permit: see id. paragraph 282.
[90] *See id* at paragraph 228.

It stems from the restrictive approaches of the WTO, ITLOS and ICJ that the precautionary principle still faces many obstacles to being recognized as a general principle of international law. Nor have any of these tribunals referred to the European courts in their judgments on questions related to the precautionary principle. Thus, the judicial dialogue has turned into parallel monologues: while the influence of the Courts on one another is clear regarding the nature and purposes of this principle, this is not the case for its application. However, some differences among these approaches should be noted.

In the WTO and ITLOS systems, the precautionary principle is often in contrast with the general principle of trade liberalization and with States' economic interests in marine environment disputes. Therefore, it is still quite common for this principle to be invoked before these courts for protectionist interests and not for the protection of human health or the environment, as the *Asbetos* and *MOX Plant* judgments clearly show. According to this interpretation, even if the precautionary principle seeks to balance the benefits of precaution against its economic costs, it is still easily exploitable in certain situations in order to prevent the importation of certain products. For example, in the GMO cases, States have never been able to provide scientific evidence in support of restrictive measures they justify on the precautionary principle, and this has resulted in a lack of proof about the possible risks to human health. The precautionary principle may thus cause harm to economic interests of States and result in a violation of trade liberalization if it is invoked without providing scientific evidence of possible risks. However, this interpretation should be rejected because, as it has been previously explained[91], the concept of precaution implies scientific uncertainty; otherwise, when firm scientific evidence is present, restrictive measures should be taken on a preventive, not precautionary, basis.

In the case law of the ICJ, the low number of cases in which the precautionary principle has been invoked and applied, make its relevance very feeble in the Court's reasoning. However, even in the ICJ's judgments, one can note a certain degree of influence of the European Courts' interpretation of this principle. In fact, while the ICJ initially did not take it into account in cases where a precautionary approach might have been relevant, after the CJEU and EFTA judgments established it as a general principle of EU law, the Court began to recognize the legal existence of the precautionary principle, thus showing an awareness of the European jurisprudence.

III. Conclusions

The analysis of the jurisprudence above has shown that the precautionary principle has consistently been reshaped by international courts through various forms of dialogue.

[91] *See* paragraph 1.

On the one hand, in the European context, the CJEU and the EFTA Court undertook a virtuous judicial dialogue by citing each other for the further development of the nature, purpose and conditions for application of the precautionary principle. The degree of convergence achieved by the European sister courts has been so high as to raise the precautionary principle to a general principle of law in the EEA.

On the other hand, the international approach followed by WTO, ITLOS and ICJ has been far more cautious. International tribunals have not engaged in dialogue with the European courts, but rather conducted parallel monologues. More specifically, these courts have shared common considerations about the nature and purpose of the precautionary principle, but not about its application. Internationally, the precautionary principle has never been recognized as a general principle of law nor consistently applied in trade and environmental disputes. Therefore, its international evolution has resulted far slower and more muddled compared to its development in the European context.

It appears that the dialogue between international judges does not currently play a role of particular importance in the evolution of the precautionary principle; however, it may be decisive for the further development of this principle. It is the hallmark of all customary rules that the rule is first affirmed in general terms, following which it is up to judges to determine its application in specific cases. In this case, the important role given to the precautionary principle by both the CJEU and the EFTA Court within the EEA has certainly influenced its gradual affirmation in the reasoning of the WTO, ITLOS and ICJ[92].

A dialogue, both within the legal framework and as a social practice, consists of two individuals who speak and listen to each other. The fact that international tribunals started to take into account the precautionary principle only after its judicial evolution in the European context is a clear proof that they have listened to their European partners. Certainly, jurisprudence cannot create customary law by itself and the use of precedents is only a subsidiary source of law for the courts. However, if the precautionary principle had not been reshaped by international courts, its weak regulatory recognition would have prevented its further evolution.

Nevertheless, a universal consensus on the interpretation and application of the precautionary principle is still lacking[93]. This is noticeable from the reluctance to refer to the precautionary principle expressly: as it has been highlighted from the case law analyzed above, all courts are cautious in invoking the principle because of its uncertain status and, when they do so, in most cases it is recalled only as an auxiliary argument to support a decision

92 *See* BAUDENBACHER Carl, *Dialogue between Courts in times of Globalization and Regionalization*, Frankfurt, 2010.
93 *See* NASH Jonathan Remy, "Standing and the precautionary principle", University of Chicago Public Law & Legal Theory Working Paper, 2008, cit. and FISHER Elizabeth, *Implementing the Precautionary Principle: Perspectives and Prospects*, Cheltenham, 2006.

taken on other sources of law applicable[94]. The precautionary principle currently depends on political considerations about the balance of risks involved, and the courts have highlighted that an appropriate assessment of its conditions of application involves social, economic and political choices more than scientific data. While, in theory, all courts recognize the protection of human health and the environment as a fundamental principle, only a few judgments concerning precautionary measures have found such restrictions appropriate[95].

As a result, the importance of the precautionary principle remains undefined and the definition contained in the 2000 Commission Communication seems to be the most appropriate: "*like other general notions contained in the legislation, such as subsidiarity or proportionality, it is for the decision-makers and ultimately the courts to flesh out the principle*"[96]. In fact, by referring to subsidiarity and proportionality, the Commission wants to underline the central role played by precaution as a general principle of law. A similar idea is shared by all the tribunals: as it stems from this analysis, the legal significance of the precautionary principle is now recognized in every international judicial context[97]. Nevertheless, the lack of clear rules creates a barrier that prevents it from being applied in cases in which there would be the need for a strong precautionary approach.

In conclusion, it could be argued that today there are various types and shades of the precautionary principle[98]. After the European courts have pushed the WTO, ITLOS and ICJ to reconsider its status in their systems, or at least to deal with it in the resolution of disputes, a further push towards a new balance could come from human rights tribunals. In fact, since the precautionary principle is aimed at protecting fundamental rights, such as the right to health and the protection of the environment, its content could certainly be developed in the case law of a tribunal intended to protect such rights. While dealing with individual complaints against States, these courts could apply the precautionary principle more freely and they may find a different balance, thus contributing to the evolution of the principle itself.

Undoubtedly, the current status of the precautionary principle is still too uncertain to ensure its application in all cases in which risks to human health and environment are possible, nor

[94] This view is widely supported in the literature: see i.e. DE SADELEER Nicolas, *Environmental Principles - from political slogans to legal rules*, 2002, cit.; PEEL Jacqueline, "Interpretation and application of the precautionary principle", Review of European Community and International Environmental Law, 2009, pp. 11-25; SUNSTEIN Cass, *Laws of fear. Beyond the precautionary principle*, Cambridge, 2005.

[95] *See* FOSTER Caroline, *Science and the Precautionary Principle in International Courts and Tribunals. Expert Evidence, Burden of Proof and Finality,* Cambridge, 2011; PEEL Jacqueline, "Interpretation and application of the precautionary principle", Review of European Community and International Environmental Law, 2009, cit. and SCHRIJVER, Nico, *The status of the precautionary principle in international law and its application and interpretation in international litigation*, Bruxelles, 2009.

[96] See Commission Communication on the Precautionary Principle, cit., note 30, paragraph 10.

[97] *See* REYNAERS Kini Els, *The precautionary principle, multilateral treaties and the formation of customary international law: a symptom of a larger conundrum?*, Genève, 2008 and TROUWBORST Arie, "The precautionary principle in general international law", Review of European Community and International Environmental Law, 2007, pp. 185-195.

[98] *See* TOLLEFSON Chris, "Litigating the Precautionary Principle in Domestic Courts", University of Calgary Working Papers, 2008, pp. 1-19.

does it seem that clarity will soon be reached. Despite this, its continuous evolution is certain, and gives reason for encouragement.

* * *

List of abbreviations

AB	Appellate Body
AG	Advocate General
BSE	Bovine Spongiform Encephalopathy
CARU	Administrative Commission of the River Uruguay
CFI	Court of First Instance
CJEU	Court of Justice of the European Union
DCs	Developing Countries
DSU	Dispute Settlement Understanding
EC	European Commission
ECHR	European Convention on Human Rights
ECtHR	European Court for Human Rights
EEC	European Economic Community
EEA	European Economic Area
EFTA	European Free Trade Agreement
EU	European Union
GATT	General Agreement on Tariffs and Trade
GMO	Genetically Modified Organisms
GMP	Good Manufacturing Practice
ICJ	International Court of Justice
ITLOS	International Tribunal for the Law of the Sea
OECD	Organization for Economic Cooperation and Development
SPS	Sanitary and Phytosanitary Measures
TFUE	Treaty on the Functioning of European Union
TUE	Treaty on the European Union
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNEP	United National Environment Programme
UNTS	United Nations Treaty Series
US	United States
WTO	World Trade Organization

Bibliography

ALEMANNO Alberto, *The Shaping of the Precautionary Principle by European Courts*, *in* L. Cuocolo - L. Luparia (ed), "Valori costituzionali e nuove politiche del diritto : Scritti raccolti in occasione del decennale della rivista Cahiers Européens", Halley, 2007, available at http://ssrn.com/abstract=1007404 (consulted on 13 June 2015)

ALEMANNO Alberto, *The Legality, Rationale and Science of Tobacco Display Bans after the Philip Morris Judgment*, European Journal of Risk Regulation, vol. 4, 2011, available at SSRN: http://ssrn.com/abstract=1948507 (consulted on 4 July 2015)

AMBRUS Mónika, *The Precautionary Principle and a Fair Allocation of the Burden of Proof in International Environmental Law*, Review of European Community and International Environmental Law, 2012, pp. 259-270

ANSARI Abdul Haseeb, *The Application of Precautionary Principle under the SPS Agreement by the WTO DSS: An Analytical Appraisal*, Indian Journal of International Law, 2013, pp. 206-241

BAUDENBACHER Carl, *Dialogue between Courts in Times of Globalization and Regionalization*, Frankfurt, 2010

BAUDENBACHER Carl, *The Definition of the Precautionary Principle in European Law: A Product of Judicial Dialogue*, *in* C. Baudenbacher, P. Tresselt, T. Orlygsson (eds), "The EFTA Court Ten Years On", Oxford 2005, pp. 105-115

BELL John, *Judiciary within Europe: A Comparative Review*, Cambridge, 2006

BOUSCAUT Frederic, *Le principe de précaution : vers un changement de paradigme juridique?*, *in* C. Eberhard (dir.), Traduire nos responsabilités planétaires. Recomposer nos paysages juridiques, Bruxelles, Bruylant, 2008, pp. 659-678

CADDELL Richard, *Shipping, Law and the Marine Environment in the 21st Century*, Witney, 2013

CHEYNE, Ilona, *Gateways to the Precautionary Principle in WTO Law*, Journal of Environmental Law, 2007, pp. 155-172

CHEYNE Ilona, *Taming the Precautionary Principle in EC Law: Lessons from Waste and GMO Regulation*, Journal for European Environmental & Planning Law, 2007, pp. 468-483

CHEYNE Ilona, *The Precautionary Principle in EC and WTO Law: Searching for a Common Understanding*, Environmental Law Review, 2006, pp. 257-277

CLAES Monica, *Are You Networked Yet? On Dialogues in European Judicial Networks*, Utrecht Law Review, 2012, pp. 100-114

DE SADELEER Nicolas, *The Precautionary Principle as a Device for Greater Environmental Protection*, Review of European Community and International Environmental Law, 2009, pp. 3-10

DE SADELEER Nicolas, *Implementing the Precautionary Principle - Approaches from the Nordic Countries, EU and USA*, London, 2007

DE SADELEER Nicolas, *Environmental Principles - from Political Slogans to Legal Rules*, Oxford, 2002

EWALD François, GOLLIER Christian, DE SADELEER Nicolas, *Le principe de précaution*, Paris, 2001

FEINTUK Mike, *Precautionary Maybe, but What's the Principle? The Precautionary Principle, the Regulation of Risk, and the Public Domain*, Cardiff University Law School, Journal of Law and Society, vol. 32, no. 3, September 2005

FISHER Elizabeth, *Opening Pandora's Box: Contextualising the Precautionary Principle in the European Union*, University of Oxford Faculty of Law Legal Studies, Research Paper Series - January 2007 - Working Paper No 2/2007, available at http://ssrn.com/abstract=967779 (consulted on 17 June 2015)

FISCHER Elizabeth, *Implementing the Precautionary Principle: Perspectives and Prospects*, Cheltenham, 2006

FOSTER Caroline, *Science and the Precautionary Principle in International Courts and Tribunals. Expert Evidence, Burden of Proof and Finality*, Cambridge, 2011

GILLESPIE Alexander, *The Precautionary Principle in the Twenty-first Century: A Case Study of Noise Pollution in the Ocean*, The International Journal of Marine and Coastal Law, 2007, pp. 61-87

GRUSZCZYNSKI Lukasz, *Regulating Health and Environmental Risks under WTO Law*, Oxford, 2010

HASBUN Sergio Amador, *The Precautionary Principle in the SPS Agreement*, Zeitschrift für europarechtliche Studien, 2009, pp. 455-490

HEYVAERT Veerle, *Facing the Consequences of the Precautionary Principle in European Community Law*, European Law Review, 2006, pp. 185-201

JACOBS Francis, *Judicial Dialogue and the Cross-Fertilization of Legal Systems: The European Court of Justice*, Texas Journal of International Law, 2003, pp. 547-556

JIANG Patrick, *A Uniform Precautionary Principle under EU Law*, Peking University Transnational Law Review, 2014, pp. 490-518

KAZHDAN Daniel, *Precautionary Pulp: Pulp Mills and the Evolving Dispute between International Tribunals over the Reach of the Precautionary Principle*, Ecology Law Quarterly, 2011, pp. 527-552

KHOURY Alexandros, *Is it Time for an EU Definition of the Precautionary Principle?*, King's Law Journal, 2010, pp. 133-143

KOURILSKY Philippe., VINEY Geneviève, *Le principe de précaution*, Paris, 2000, p. 140 ss

LAOWONSIRI Akawat, *Application of the Precautionary Principle in the SPS Agreement*, Max Planck Yearbook of United Nations, 2010, pp. 565-623

LEME MACHADO Paulo Alfonso, *Il principio di precauzione e la valutazione dei rischi*, Rivista Giuridica dell'Ambiente, 2007, pp. 887-890

MARTINUZZI Marco, TICKNER Joel, *The Precautionary Principle: Protecting Public Health, Environment, and the Future of our Children*, World Health Organization, 2005

NASH Jonathan Remy, *Standing and Precautionary Principle, Public Law and Legal Theory*, Chicago Working Paper no. 178, Tulane Research Paper, 2007, available at http://ssrn.com/abstract_id=1011937 (consulted on 20 June 2015)

NLIAM Sylvester Oscar, *International Oil and Gas Environmental Legal Framework and the Precautionary Principle*, African Journal of International and Comparative Law, 2014, pp. 22-39

OYAMA Kaè, *Protection of the Marine Environment and Balancing the "Precautionary Principle" with Freedom of Navigation*, Keio Law Review, 2010, pp. 450-464

PEEL Jacqueline, *Interpretation and Application of the Precautionary Principle*, Review of European Community and International Environmental Law, 2009, pp. 11-25

PIEPER Joseph, *La prudenza*; Brescia-Milano, 1999

RAFFENSPERGER Carolyn, JACKSON Wes, TICKNER Joel, *Protecting Public Health and the Environment: Implementing the Precautionary Principle*, Washington, 1999

RAFFENSPERGER Carolyn, TICKNER Joel, MYERS Nancy, *The Precautionary Principle in Action: A Handbook*, Washington, 1999

RAFFENSPERGER Carolyn, MYERS Nancy, *Precautionary Tools for Reshaping Environmental Policy*, Washington, 2005

REYNAERS Kini Els, *The Precautionary Principle, Multilateral Treaties and the Formation of Customary International Law: A Symptom of a Larger Conundrum?*, Genève, 2008

ROSAS Allan, *Case Annotation on Case C-149/96, Portugal v Council, Judgment of the Full Court of 23 November 1999*, Common Market Law Review, 2000, pp. 797-816

ROSAS Allan, *Implementation and Enforcement of WTO Dispute Settlement Findings: An EU Perspective*, Journal of International Economic Law, 2001, pp. 131-144

ROSAS Allan, *With a Little Help from my Friends: International Case-Law as a Source of Reference for the EU Courts*, The Global Community Yearbook of International Law and Jurisprudence, 2005, pp. 218 and 226-227

SAGE-FULLER Bénédicte, *The Precautionary Principle in Marine Environmental Law*, Routledge, 2013

SANCIN Vasilka, *International Environmental Law: Contemporary Concerns and Challenges*, Ljubljana 2012

SCHOLTEN-VERHRIJEN Irene, *Roadmap to EU Food Law*, The Hague, 2012

SCHRIJVER, Nico, *The Status of the Precautionary Principle in International Law and its Application and Interpretation in International Ltigation*, Bruxelles, 2009

STIRLING Andrew, RENN Ortwin, VAN ZWANBERG Patrick, *A Framework for the Precautionary Governance of Food Safety: Integrating Science and Participation in the Social Appraisal of Risk*, *in* Fisher E. et al. (ed), "Implementing the Precautionary Principle: Perspectives and Prospects", Cheltentham, 2006

SUNSTEIN Cass, *Risk and Reason: Safety, Law and Environment*, Cambridge, 2002

SUNSTEIN Cass, *Laws of Fear. Beyond the Precautionary Principle*, Cambridge, 2005

SZAIKOWSKA Anna, *Regulating Food Law: Risk Analysis and the Precautionary Principle as General Principles of EU Food Law*, Wageningen 2012

SZAIKOWSKA Anna, *The Impact of the Definition of the Precautionary Principle in EU Food Law*, Common Law Market Review, 2010, pp. 173-196

TANAKA Yoshifumi, *The International Law of the Sea*, Cambridge, 2012

TOLLEFSON Chris, *Litigating the Precautionary Principle in Domestic Courts*, University of Calgary Working Papers, 2008, pp. 1-19

TROUWBORST Arie, *The Precautionary Principle and the Ecosystem Approach in International Law*, Review of European Community and International Environmental Law, 2009, pp. 26-37

TROUWBORST Arie, *The Precautionary Principle in General International Law*, Review of European Community and International Environmental Law, 2007, pp. 185-195

VAN CALSTER Geert, *Research Handbook on Environment, Health and the WTO*, Cheltenham, 2013

Case Law

Arbitral Tribunal, *Trail Smelter Case (United States/Canada)*, Judgment of March 11th 1941, Reports of International Arbitral Awards, Volume III, pp. 1905-1982

ECJ

ECJ, case C-53/80 *Kaasfabriek Eyssen BV* [1981], ECR 409

ECJ, case C-227/82 *Van Bennekom* [1983], ECR 3883

ECJ, case C-174/82, *Sandoz* [1983], ECR I-2445

ECJ, case C-162/96 *Racke* [1998], ECR I-3688

ECJ, case C-106/96 *Commission v. United Kingdom*, ECR I-2729

ECJ, case T-13/99 *Pfizer* [2002], ECR II-03305

ECJ, case T-70/99 *Alpharma* [2002], ECR II-3495

ECJ, case T-392/02 *Solvay* [2002], ECR II-4555

ECJ, case T-74/00, *Artegodan GMbH* [2002], ECR II-4945

ECJ, case C-192/01, *Commission v. Denmark* [2003], ECR I-09693

ECJ, case C-24/00, *Commission v. France* [2004], ECR I-01277

ECJ, case C- 99/02, *Commission v. Italy* [2004], ECR I-03353

ECJ, case C- 41/02, *Commission v. The Netherlands* [2004], ECR I-11375

ECJ, case C-269/13, *Commission v. Acino* [2014], ECLI :EU:C:2014:255

ECJ, case C-5334/13, *Ministero dell'Ambiente e della Tutela del Territorio e del Mare and Others v Fipa Group Srl* [2015], ECLI:EU:C:2015:140

EFTA Court

EFTA Court case E-3/00, *EFTA Surveillance Authority v. Norway*, Judgment of April 5th 2001, Report of the EFTA Court, 2001

EFTA Court case E-16/10, *Philip Morris Norway AS v Staten v/Helse-og omsorgsdepartementet*, Judgment of September 12th 2011, Report of the EFTA Court, 2011

ICJ

ICJ, *Asylum Case (Colombia/Peru)*, Judgment of November 20th 1950, ICJ Reports 1950, (Azevedo dissenting)

ICJ, *Nuclear Tests (New Zealand/France),* Judgment of December 20th 1974, ICJ Reports, 1974

ICJ, *Nuclear Tests (New Zealand/France)*, Judgment of September 22nd 1995, ICJ Reports 1995

ICJ, *Gabcikovo-Nagymaros Project (Hungary/Slovakia)*, Judgment of February 17th 1997, ICJ Reports 1997

ICJ, *Pulp Mills (Argentina/Uruguay),* Judgment of April 20th 2010, ICJ Reports 2010

ITLOS

ITLOS, *Southern Bluefin Tuna Cases (New Zealand/Japan; Australia/Japan), Provisional Measures*, Judgment of August 3rd and 16th, 1999, ITLOS Report 1999

ITLOS, *MOX Plant Case (Ireland/United Kingdom), Provisional measures,* Judgment of November 19th 2001, 2001, ITLOS Report 2001

WTO

WTO Panel, DS-3, *Restrictions on the Importation of and Internal Taxes on Cigarettes in Thailand*, Judgment of November 7th 1990, WTO Report, 1990

WTO Panel, DS-4, *Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, Judgment of September 3rd 1991, WTO Report, 1991

WTO Panel, DS-29/R, *Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, Judgment of May 20th 1994, WTO Report, 1994

WTO, Appellate Body, DS-26, *Measures Concerning Meat and Meat Products (Hormones)*, Judgment of January 16th 1998, WTO Report, 1998

WTO Appellate Body, DS-58/61, *Import Prohibition of Certain Shrimp and Shrimp Products*, Judgment of November 6th 1998, WTO Report, 1998

WTO Appellate Body, DS-135, *Measures Affecting Asbestos and Products Containing Asbestos*, Judgment of March 5th 2001, WTO Report, 2001

WTO Panel DS-291, *Measures Affecting the Approval and Marketing of Biotech Products*, Judgment of September 29th 2006, WTO Report, 2006

Legal Texts

Bremen Declaration of the International Conference on the Protection of the North Sea, 1 November 1984, available at http://www.ospar.org/html_docments/ospar/html/1nsc-1984-bremen_declaration.pdf (consulted on 21 June 2015)

Bergen Ministerial Declaration on Sustainable Development, 16 May 1990, available at http://unfccc.int/resource/ccsites/senegal/fact/fs220.htm (consulted on 21 June 2015)

EU Communication from the Commission on the Precautionary Principle, February 2nd 2000, COM (2000) I, available at http://ec.europa.eu/dgs/health_consumer/library/pub/pub07_en.pdf (consulted on 20 June 2015)

EU Decision 96/381/EC of the Commission, approving the measures to be implemented as regards Bovine Spongiform Encephalopathy in Portugal, 20 June 1996, available at http://ec.europa.eu/food/food/biosafety/tse_bse/docs/d96-381.pdf (consulted on 21 June 2015)

EU Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, OJ L 143, 30 April 2004, p. 56, available at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02004L0035-20130718 (consulted on 20 June 2015)

EU Regulation No 2821/98 of the Council, of 17 December 1998, amending, as regards withdrawal of the authorisation of certain antibiotics, Directive 70/524/EEC concerning additives in feedingstuffs, OJ L 351, 29.12.1998, pp. 4-8, available at http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:31998R2821 (consulted on 21 June 2015)

London Declaration of the Second International Conference on the Protection of the North Sea, 24-25 November 1987, available at http://www.ospar.org/html_documents/ospar/html/2nsc-1987_london_declaration.pdf (consulted on 21 June 2015)

Montreal Protocol on Substances that Deplete the Ozone Layer, Montreal, 16 September 1987, United Nations, Treaty Series, vol. 1522, available at https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-2-a&chapter=27_&lang=en (consulted on 21 June 2015)

UN General Assembly, World Charter for Nature., 28 October 1982, A/RES/37/7, available at: http://www.refworld.org/docid/3b00f22a10.html (consulted on 21 July 2015)

UNEP Council Decision, Precautionary Approach to Marine Pollution, Including Waste Dumping at Sea, 25 May 1989, UNEP/GC/dec./15/27, available at http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=71&Article ID=777&l=en (consulted on 21 June 2015).

Vienna Convention for the Protection of the Ozone Layer, Vienna, 22 March 1985, United Nations, Treaty Series, vol. 1513, available at https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-2&chapter=27&lang=en (consulted on 21 June 2015)

CENTRE D'ÉTUDES
JURIDIQUES EUROPÉENNES
Centre d'excellence Jean Monnet

UNIVERSITÉ
DE GENÈVE

Geneva Jean Monnet Working Papers

Centre d'études juridiques européennes

Université de Genève - UNI MAIL
www.ceje.ch/fr/recherche/jean-monnet-working-papers/