



Volume 4, Issue 4, September 2007

Can Article 5.7 of the WTO SPS Agreement be a Model for the Precautionary Principle?

*Niu Huei-Chih**

Abstract

The aim of this paper is to suggest that the mechanism set up in Article 5.7 of the Agreement on the Application of Sanitary and Phytosanitary Measures (“SPS Agreement”) can be used as a model to implement the precautionary principle outside the jurisdiction of the WTO.

DOI: 10.2966/scrip.040407.367



© Niu Huei-Chih 2007. This work is licensed under a [Creative Commons Licence](#). Please click on the link to read the terms and conditions.

* Associate Professor, Institute of Law for Science and Technology, National Tsing Hua University, Taiwan. Research Fellow at Institute of Advance Study on Science, Technology and Society (IAS-STS), Graz, Austria (January–August 2007). This paper is a research result of the NSC project (NSC-96-2918-I-007-007). The author would like to thank to the colleagues at IAS-STS for hosting me in writing this paper, and Miss Guan H. Tang for her assistance and patience. However, any mistake in this paper remains the sole responsibility of the author.

1. Introduction

The aim of this paper is to suggest that the mechanism set up in Article 5.7 of the Agreement on the Application of Sanitary and Phytosanitary Measures (hereafter referred to as the “SPS Agreement”) can be used as a model to implement the precautionary principle outside the jurisdiction of the World Trade Organization (hereafter referred to “WTO”). The significance of Article 5.7 of the SPS Agreement is that it authorizes Members of the WTO to adopt the necessary sanitary and phytosanitary measures (hereafter referred to as “SPS measures”) to protect human health, animal and plant life in cases where relevant scientific evidence is insufficient, whereas the ultimate function of the SPS Agreement is to ensure that any SPS measure is applied on the basis of scientific principles, and is not maintained without sufficient scientific evidence.¹ To deal with the risks of imports such as those arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms² where scientific evidence remain insufficient, Article 5.7 provides four requirements for Members to adopt “provisional measures” to address such risks. Such a provisional approach is similar to the concept of the precautionary principle, which is evolving from international environmental law in addressing severe and irreversible environment and health threats or harm before the full scientific certainty is in place. Even though the precautionary principle has been written into several international treaties, no legal condition for its use is constituted.³ The success of Article 5.7 to address risks with insufficient scientific evidence inspires the author to consider that this provisional approach is applicable as a model to the implementation of the precautionary principle.

To make this suggestion does not mean the author is unaware of the fact that the WTO has officially declared, in several of its Panel and Appellate Body Reports, that the precautionary principle has not been written into the SPS Agreement as a ground for justifying SPS measures that are otherwise inconsistent with the obligations of Members set out in particular provisions of that Agreement.⁴ Nor will the author challenge or comment on this determination.

This paper is divided into three parts. The first part briefly highlights the role of Article 5.7 of the SPS Agreement, as compared with the requirement for scientific evidences in other major SPS provisions. Several WTO disputes that contribute to interpreting Article 5.7 will be addressed in the second part. The attempt of the third part is to put the precautionary principle and Article 5.7 of the SPS together to analyze and examine the applicability of use of these four requirements, and the provisional approach of Article 5.7 as a model for countries to exercise the precautionary principle, or at least, precaution.

¹ SPS Agreement, Article 2.2.

² SPS Agreement, Annex A, para. 1(a).

³ I Cheyne, “Gateways to the Precautionary Principle in WTO Law” (2007) 19 *Journal of Environmental Law*, 155, 156.

⁴ Please refer to Section 3.3.1.

2. Article 5.7 of the SPS Agreement

The main objective of the SPS Agreement is to protect human, animal or plant life or health from being threatened or harmed by imported food, products of agriculture and the livestock industry. To achieve this goal, the SPS Agreement acknowledges the rights of its Members to undertake appropriate measures for the protection of human, animal or plant life or health.⁵ Given the fact that SPS measures may, directly or indirectly, affect international trade⁶ in exercising this right, members are obliged not to have these measures applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between Members, where the same conditions prevail or a disguised restriction on international trade is in place.⁷ This reflects that the SPS Agreement is a trade agreement in nature.⁸ By means of requiring scientific principles, scientific evidence,⁹ international standards¹⁰ and risk assessment,¹¹ the SPS Agreement tends to make policies more reasonable, and decisions more effective or more efficient than in circumstances where no scientific certainty can be referred to.¹² In other words, when Article 2.2 requires members to limit the application of their sanitary measures to an extent that is necessary to protect the life and health of human, animals and plants, and such measures must be based on scientific principles, which will not be maintained without sufficient scientific evidence, the SPS Agreement seeks to ensure that all SPS measures are adopted on an objective, neutral basis so as to prevent protectionism.¹³ According to the latter paragraph of Article 2.2, which stipulates that unless as provided for in Article 5.7 the application of SPS measures should be based on the scientific evidence requirement, Article 5.7 can be regarded as an exception to these scientific provisions, so as to deal with circumstances that scientific evidence concerning the risks rising from imports is insufficient.

2.1 The Role of Article 5.7

Article 5.7 applies to cases where relevant scientific evidence is insufficient, and states as follows: “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

⁵ SPS Agreement Preamble, paragraph 1; Article 2.1.

⁶ SPS Agreement, Article 1.1.

⁷ SPS Agreement Preamble, paragraph 1; Article 2.3.

⁸ S Charnovitz, “The Supervision of Health and Biosafety Regulation by World Trade Rules” (2000) 13 *Tulane Environmental Law Journal*, 271, 276.

⁹ SPS Agreement Article 2.2 and 5.2.

¹⁰ SPS Agreement Preamble, paragraph 5; Article 3.3.

¹¹ SPS Agreement, Article 5.1.

¹² V R Walker, “Keeping the WTO from Becoming the “World Trans-Science Organization”: Scientific Uncertain, Science Policy, and Fact-finding in the Growth Hormones Dispute” (1998) 31 *Cornell International Law Journal*, 251, 252.

¹³ W E Wagner, “The Science Charade in Toxic Risk Regulation” (1995) 95 *Columbia Lw Review* 1613, 1618-1628.

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.” Accordingly, a Member may provisionally adopt SPS measures on the basis of available pertinent information, including that from the relevant international organisations, as well as from SPS 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 shall review the SPS measure accordingly, within a reasonable period of time. Article 5.7 is a qualified exemption from Article 2.2 and 5.1.¹⁴ This liberal attitude to legislation regarding insufficient scientific evidence shows the understanding of the SPS Agreement drafters in regards to the fact that a product threatening people, animals and the plant health or life of the importing Member is not always accompanied by sufficient scientific evidence for risk assessment and import determination.¹⁵

2.2 Disputes on Article 5.7

There are five major WTO cases in relation to the SPS Agreement, and debates concerning Article 5.7 appear directly or indirectly in four of them.¹⁶ Amongst these disputes, *Japan – Measures Affecting Agricultural Products* (hereafter referred as “*Japan - Varietals*”)¹⁷ is the most important. It clarifies the requirements, as set out in Article 5.7, for Members to follow. A very similar case, *Japan – Measures Affecting Agricultural Products* (hereafter referred as “*Japan - Varietals*”)¹⁸ focuses on the concept of “insufficient scientific evidence” or “scientific uncertainty”. The famous *European Communities - Measures Concerning Meat and Products* (hereafter referred as “*EC-Hormones*”)¹⁹ does not directly address Article 5.7. However, it does highlight the relevance of the precautionary principle in the interpretation of the SPS Agreement. The *European Communities - Measures Affecting the Approval and Marketing of Biotech Products* (hereafter referred as “*EC-Biotechnology*”)²⁰ which has drawn the attention of global society to the legitimacy of European Communities’ (hereafter referred to as “the EC”) regulations for genetically modified organisms

¹⁴ S Charnovitz, “Improving the Agreement on Sanitary and Phytosanitary Standards” in G P Sampson & W B Chambers (eds), *Trade Environment, and the Millennium* (1999) 171, 184.

¹⁵ R Neugebauer, “Fine-Tuning WTO Jurisprudence and the SPS Agreement: Lessons From the Beef Hormone Case” (2000) 31 *Law and Policy in International Business*, 1255, 1276.

¹⁶ The dispute that does not deal with Article 5.7 is WTO Reports of the Panel and Appellate Body, *Australia – Measures Affecting Importation of Salmon*, WT/DS18/R; WT/DS18/AB/R, 6 November 1998.

¹⁷ WTO Reports of the Panel and Appellate Body, *Japan – Measures Affecting Agricultural Products*, WT/DS76/AB/R, 19 March 1999.

¹⁸ WTO Reports of the Panel and Appellate Body, *Japan - Measures Affecting on Importation of Apples*, WT/DS245/R; WT/DS245/AB/R, 10 December 2003.

¹⁹ WTO Reports of the Panel and Appellate Body, *EC Measures Concerning Meat and Products*, WT/DS26/R; WT/DS26/AB/R(USA); WT/DS48/R; WT/DS48/AB/R(Canada)), 13 February 1998.

²⁰ WTO Reports of the Panel, *European Communities-Measures Affecting the Approval and Marketing of Biotech Products*, WT/DS291/R (United States), WT/DS292/R (Canada), WT/DS293/R (Argentina), 29 September 2006.

(GMO), mainly echoes the findings and interpretations of its precedents when addressing the debates over Article 5.7 and the precautionary principle.

2.3 Four Requirements under Article 5.7

The *Japan – Varietals* concerns Japanese regulations insofar as they have been implementing since 1950s to prohibit the importation of certain fruits as potential hosts of the codling moth. The reason for this prohibition was that these fruits could harbour the parasites of the codling moth, which thus far had not existed in Japan; the importation might bring in the insects and cause damage to the domestic agriculture. In addition, the Japan Ministry of Agriculture, Forestry and Fisheries initiated two guidelines on model test procedures in 1987 to determine the efficacy of the quarantine procedure proposed. The guidelines set forth requirements for the initial lifting of the ban for a given product. This measure was challenged by the United States (hereafter referred to as “the US”), who claims the inconsistency of the guidelines with Articles 2.2, 5.1, 5.2 and 5.6 of the SPS Agreement. The Panel found the Japanese measure inconsistent with the SPS Agreement on Articles 2.2 & 5.6. After an appeal, the Appellate Body upheld the Panel’s finding and confirmed the Panel’s finding that Japan’s measure on varietals testing did not fulfill the requirements of Article 5.7.

As far as the debates on Article 5.7 are concerned, Japan invoked Article 5.7 in support of its varietals testing measure. The US considered there was enough scientific evidence to demonstrate that differences in species would not affect the testing result.²¹ In addition, it argued that the measure at issue had been adopted for decades without gathering information for further examination within a reasonable period of time, which was not consistent with Article 5.7.²² Japan claimed that according to the available pertinent information, the difference in species could result in differences in the effect of eradicating insects; the varietals testing measure had a rational scientific basis.²³

The panel, in settling the Article 5.7 dispute, firstly indicated that there were two requirements that must be fulfilled when members introduced SPS measures based on Article 5.7. One is the insufficiency of scientific evidence, and the other is based on available pertinent information. If a Member initiated a SPS measure based on available pertinent information when scientific evidence is insufficient, two additional requirements (obligations) must be fulfilled during the execution period of the subject measure; one is to obtain more necessary information, while the other is to examine the SPS measure with a reasonable period of time.²⁴

The Appellate Body corroborated the analysis of the panel with regard to the factors of Article 5.7, and indicated that these four requirements must be met in order to adopt and maintain a provisional SPS measure.²⁵ These four requirements are divided

²¹ WT/DS76/R, para. 8.52.

²² WT/DS76/R, para. 8.53.

²³ WT/DS76/R, para. 8.50.

²⁴ WT/DS76/R, para. 8.54.

²⁵ WT/DS76/AB/R, para. 89.

into two groups, based upon the first and the second sentences of Article 5.7. The requirements in the first group can be regarded as the preconditions for adopting a provisional SPS measure. The requirements in the second group aim to set up obligations to the Members to ensure that this measure is necessary when time goes by, and provisional in nature.

The Appellate Body stated:

“Pursuant to the first sentence of Article 5.7, a member may provisionally adopt an SPS measure if this measure is:

imposed in respect of a situation where “relevant scientific information is insufficient”; and

adopted “on the basis of available pertinent information”.

Pursuant to the second sentence of Article 5.7, such a provisional measure may not be mentioned unless the Member which adopted the measure:

“seek[s] to obtain the additional information necessary for a more objective assessment of risk”; and

*“review[s] the ...measure accordingly within a reasonable period of time”.*²⁶

In addition, the Appellate Body adds that these four requirements are clearly cumulative in nature and are equally important for the purpose of determining consistency with this provision.²⁷ For the specific purposes of determining consistency with Article 5.7, all four requirements are “equally important”, for if any one of these requirements is not met, a Member is not acting consistently with the provisions of Article 5.7.²⁸ This interpretation makes it clear that Members are not allowed to introduce provisional SPS measures simply because the scientific evidence is insufficient: instead, to introduce SPS measures not based on scientific evidence could only occur when all four requirements of Article 5.7 are met.²⁹

2.3.1 Insufficiency of Relevant Scientific Evidence and Scientific Uncertainty

In *Japan – Varietals*, there are debates as to the concept of “sufficient scientific evidence”; however, these make limited contributions in terms of clarifying this notion. The Appellate Body held the view that “sufficient scientific evidence” indicates that there must be the existence of a sufficient, or adequate relationship between the SPS measure and scientific evidence.³⁰ The “rationale relevance” should be determined on the basis of distinctive features of individual cases, and the nature of the SPS measure and the amount of the scientific evidence.³¹ In other words, there is

²⁶ WT/DS76/AB/R, para. 89.

²⁷ Ibid.

²⁸ WT/DS291/R, WT/DS292/R, WT/DS293/R, para. 7.2942.

²⁹ WT/DS76/AB/R, para. 90.

³⁰ WT/DS76/AB/R, para. 73.

³¹ WT/DS76/AB/R, para. 84.

no standard formula to define what constitutes the “insufficiency of scientific evidence.”

In *Japan – Apples* case, this issue was addressed in further detail. This case concerned a Japanese SPS measure that restricts the import of American-grown apples to protect Japan from the introduction of “fire blight”.³² The United States has attempted to prove the fact that mature and symptomless apples will not pass the bacteria of fire blight on, by submitting a series of research materials, and hoping that Japan would modify their standards of plant SPS measures. However, it failed. After the breakdown of negotiations, the US brought this case to the WTO and claimed that this measure violated Articles 2.2, 5.1 and 5.7 of the SPS Agreement.

In response to Japan’s claim with regard to the meaning of “relevant scientific evidence is insufficient” within the meaning of Article 5.7, the Panel held that to maintain a measure without sufficient scientific evidence is different from initiating a measure when relevant scientific evidence is insufficient. The former includes the condition that the introduction and maintenance of a SPS measure is not based on existing and supportive sufficient scientific evidence; therefore, such a measure is not rationally connected to scientific evidence; the latter meant under an objective circumstance, and there was not enough evidence to support the existence of risk, or enough scientific evidence to support the rational connection between the determination of risk and the introduction of SPS measures. Therefore, the insufficiency of relevant scientific evidence, as stipulated in Article 5.7, should be a condition that there was no, or that there was only very limited scientific evidence upon which the risk issue could be managed.³³

The Appellate Body confirmed that insufficiency should not exclude “case where the available evidence is more than minimal in quality, but also not led to reliable or conclusive.”³⁴ Accordingly, reliability and conclusiveness are the key concepts in defining “insufficiency”.³⁵ The Appellate Body held the view that the notions of “relevance” and “insufficiency” in the introductory phrase of Article 5.7 imply a relationship between the scientific evidence and something else.³⁶ When referring to the second sentence of Article 5.7, which indicates a “more objective assessment of risks”, the Appellate Body suggested that these elements militate in favor of a link or relationship between the first requirement, under Article 5.7, and the obligation to

³² WT/DS245/R, paras. 2.17, 2.19.

³³ WT/DS245/R, para. 8.291.

³⁴ WT/DS245/AB/R, para. 183.

³⁵ It is noteworthy that David Winickoff et al. suggest that the reliability and conclusiveness are characteristics not of the scientific evidence in isolation, but of the scientific evidence in relation to the values of a particular community in a particular regulatory context. It therefore makes little sense to claim that existing scientific is sufficient for an adequate risk assessment if it fails to address risks that a particular community actually care about. To the author, the advantage of their approach is it can bring public participation into the risk assessment process in the WTO. However, the disadvantage is, when the social perspective on a risk in question is of low certainty and consensus, Members seem can easily justify their provisional SPS measures by arguing that the existing scientific evidence is unreliable, inconclusive and insufficient. D Winickoff, S Jasanoff, L Busch, R G-White, B Wynne, “Adjudicating the GM Food Wars: Science, Risk and Democracy in World Trade Law” (2005) 30 *Yale Journal of International Law* 81, 118.

³⁶ WT/DS245/AB/R, para. 179.

perform a risk assessment under Article 5.1: “relevant scientific evidence” will be “insufficient” within the meaning of Article 5.7 if the body of available scientific evidence does not allow, in quantitative or qualitative terms, the performance of an adequate assessment of risks, as required under Article 5.1 and as defined in Annex A to the SPS Agreement.³⁷

In addition, Japan raised the distinction between “new uncertainty” and “unsolved uncertainty”. The former indicates the case where a new risk is identified; the latter refers to uncertainty which scientific evidence is unable to resolve despite accumulated scientific evidence.³⁸ This approach, however, was not taken by the Appellate Body, which asserted that the application of Article 5.7 was triggered not so much by the existence of scientific uncertainty, but rather, by the insufficiency of scientific evidence. The text of Article 5.7 is clear: it refers to “cases where relevant scientific evidence is insufficient”, not to “scientific uncertainty”.³⁹ Even though the Appellate Body went no further than to clarify the difference between these two concepts, what may be certain is that “scientific uncertainty” cannot be a reason to justify a SPS measure adopted in the name of Article 5.7.

2.3.2 Additional Information

In response to Japan’s claims with regard to the concept of obtaining “the additional information necessary for a more objective assessment of risk”, the Appellate Body notes that neither Article 5.7, nor any other provision of the SPS Agreement, sets out explicit prerequisites regarding the additional information to be collected or a specific collection procedure. However, since this information is to be sought in order to allow the Member to conduct “a more objective assessment of risk”, the information sought must be germane to conducting such a risk assessment.⁴⁰

2.3.3 Review within Reasonable Period of Time

In addition, the second requirement of the second sentence of Article 5.7 concerns the obligation to review the measure at issue within a reasonable period of time. To clarify what constitutes a “reasonable period of time”, the Appellate Body held the view that this has to be established on a case-by-case basis, and depends on the specific circumstances of each case, including the difficulty of obtaining the additional information necessary for the review and the characteristic of the provisional SPS measure.⁴¹

3. Using Article 5.7 as a Model to Apply Precautionary Principle

In the last two decades, the precautionary principle, or the notion of precaution, has become an important regulatory approach in many legal and political instruments concerning the risks or threats within the environment and health fields. The Rio Declaration on Environment and Development offers the most well-known

³⁷ Ibid.

³⁸ WT/DS245/AB/R, para. 98.

³⁹ WT/DS245/AB/R, para. 184.

⁴⁰ WT/DS76/AB/R, para. 92.

⁴¹ WT/DS76/AB/R, para. 93.

formulation to address this principle. It reads as follows: “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”⁴² This “caution first, science second”⁴³ approach reflects the fact that scientific uncertainty is a serious problem for regulators and decision-makers in the above-mentioned fields. However, after many international agreements and protocols have referred to the principle, approach or measures of precaution,⁴⁴ consensus as to the legal status of the precautionary principle is still conspicuous by its absence. In addition, how to implement the precautionary principle remains an issue on the table in international and national forums. Debates over legal status mainly rest on whether the precautionary principle has become a customary international law through state practice, and therefore, a binding force for all countries. To make this principle feasible, efforts are made to analyze the core elements or to build up the mechanism for implementing the precautionary principle.⁴⁵

3.1 The Legal Status of the Precautionary Principle

There are a great number of academic works and political debates that tend to argue for or against the legal status of the precautionary principle. Amongst these, the WTO *EC-Hormones* case offers one of the best clarifications of this point. In the *EC-Hormones*, the EC asserted that restrictions against hormone-treated beef was based on the precautionary principle,⁴⁶ and brought the debate over this principle into the SPS Agreement. The hormone was originally used for speeding up the growth of oxen, and lowering the feeding costs. But the injected portions were not allowed for human consumption, for reasons of safety. After the beef with high dose of hormone was used for baby food by accident, the Council of European Union, in 1981, forbade the use of any medicine with hormonal effects on farm livestock, as well as the sale of local beef with such injections in the market.⁴⁷ This restriction also started to apply to the import of agricultural products on January 1, 1989.⁴⁸ Since hormones approved by the US Food and Drug Administration (FDA) and the Canada Health Department were used on 90% of the oxen for edible meals in the Northern America, the above restriction barring the import of beef from the US and Canada caused a serious impact to the beef manufacturers in these two countries. In this dispute, one of the issues was whether the hormone restriction of EC had violated Article 5.1 of the SPS Agreement for not being based on risk assessment; the EC invoked the precautionary principle in support of its claim that its measures in dispute were based on a risk assessment. The

⁴² Rio Declaration, Principle 15, Rio de Janeiro, June 14 1992, (1992) 31 ILM 874.

⁴³ D Freestone & E Hey, “Origins and Development of the Precautionary Principle” in R Churchill & D Freestone (eds) *International Law and Global Climate Change* (1991), 12, 22.

⁴⁴ There are 16 international legal or political instruments referring to the precautionary principle and 10 of them have legal binding force. J O McGinnis, “The Appropriate Hierarchy of Global Multilateralism and Customary International Law: The Example of the WTO” (2003) 44 *Virginia Journal of International Law*, 229, 275-284.

⁴⁵ Please refer to section 3.2.

⁴⁶ WT/DS26/R/USA, para. 4.202.

⁴⁷ 81/602/EEC Directive of 1981.

⁴⁸ 88/146/EEC Directive.

basic submission of the EC to assist this claim was that the precautionary principle is, or has become, “a general customary rule of international law” or at least “a general principle of law”.⁴⁹

While recognizing the objections of the US and Canada in this respect,⁵⁰ the Appellate Body referred to the *Case Concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia)*⁵¹ in which the International Court of Justice (ICJ) recognized that in the field of environment protection, new norms and standards had been developed in the last two decades, but the precautionary principle was not identified as one of the norms.⁵² In addition, after reviewing a large amount of literatures in the field of international environmental law,⁵³ the Appellate Body made its conclusion:

*The status of the precautionary principle in international law continues to be the subject of debate among academics, law practitioners, regulators and judges. The precautionary principle is regarded by some as having crystallized into a general principle of customary international environmental law. Whether it has been widely accepted by Members as a principle of general or customary international law appears less than clear...*⁵⁴

This finding was referred to both in the *Japan-Varietals* and the *EC-Biotech* disputes.⁵⁵ In addition, the EC in the *EC-Biotech* sought to identify the 2000 Cartagena Protocol on Biosafety to the Convention on Biological Diversity (hereafter “the Biosafety Protocol”) as a binding international law instrument to the EC, Argentina, Canada and the US, on the basis on Article 18 of the Vienna Convention on the Law of Treaties (hereafter “the Vienna Convention”).⁵⁶ The Appellate Body made it clear that this approach was inconsistent with Article 31(3)(c) of the Vienna Convention, for Argentina, Canada or the US are not parties to the Biosafety Protocol. As a result, the precautionary rules in the Biosafety Protocol were not applicable to Argentina, Canada or the US.⁵⁷

However, for the purpose of this paper, the author adopts the view that being a general principle of customary international environmental law or a legal principle in international treaties makes no difference to the proposal that to apply the four requirements in the Article 5.7 of the SPS Agreement in the name of precaution. To the author, even though the precautionary principle seems to be referred or adopted in

⁴⁹ WT/DS26/AB/R, para. 121.

⁵⁰ WT/DS26/AB/R, para. 122.

⁵¹ *Case Concerning the Gabčíkovo Nagymaros Project* (Hungary/Slovakia), *ICJ Reports* 1997, 1-241; as to the discussion of the precautionary principle in this case, please refer to M A Fitzmaurice, “The Gabčíkovo-Nagymaros Case: The Law of Treaties” (1988) 11 *Leiden Journal of International Law* 321.

⁵² WT/DS26/AB/R, para. 123, note 93.

⁵³ WT/DS26/AB/R, para. 123, note 92.

⁵⁴ WT/DS26/AB/R, para. 123.

⁵⁵ WT/DS291/R, WT/DS292/R, WT/DS293/R, Para. 7.88.

⁵⁶ WT/DS291/R, WT/DS292/R, WT/DS293/R, Para. 7.53.

⁵⁷ WT/DS291/R, WT/DS292/R, WT/DS293/R, Para. 7.75.

some international environmental conventions or declarations, including the Biosafety Protocol, it is noteworthy that most of them use the wording of precautionary “approach”⁵⁸ or “measures”⁵⁹ rather than precautionary “principle”;⁶⁰ some of them even use “soft law” instruments to pack the concept of precaution.⁶¹ This seems to suggest, at least at this stage, that making the concept of precaution known, accepted and used is far more practical and important than defining the legal status of the precautionary principle. In other words, regardless of its legal status, the concept of precaution can be an important element in the decision-making process in addressing risks to the environment and health.⁶² More efforts and emphasis should be placed on the precise definition and content needed to embody the precautionary mechanism.⁶³

3.2 The Contents of the Precautionary Principle

Efforts to embody the content and mechanism of the precautionary principle can be observed in both the literature as academic theory and in governmental guidelines for practice. Rome F Quijano, for instance, proposes ten essential elements in the precautionary principle. He uses ten titles to indicate these elements: 1. prevention; 2. reverse onus; 3. elimination; 4. community orientation; 5. alternative assessment; 6. uncertainty is a threat; 7. technically/scientifically sound; 8. information unrestricted; 9. open; and 10. need based.⁶⁴ Nicholas A Ashford identifies four elements of the precautionary principle. In short, they are serious and irreversibility of the harm addressed; possible costs and benefits of policies and technologies; technological

⁵⁸ For instance, Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Stocks, Article 6.3; Biosafety protocol, Preamble para. 4, Articles 1, 10.6, 11.8; The 1996 Protocol to the Convention on the Prevention of Marine pollution by Dumping of Wastes and Other Matter, Article 3.

⁵⁹ For instance, Montreal Protocol on Substances that Deplete Ozone Layer, Preamble para. 6; The United Nations Framework Convention on Climate Change, Article 3.3; The Second Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Further Reduction of Sulphur Emissions or Their Transboundary Fluxes, Preamble.

⁶⁰ For instance, Convention on Transboundary Watercourses and International Lakes, Helsinki, 1992, Article 2.5(a); Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes, Article 4 (f)(g); Convention for the Protection of the Marine Environment of the North-East Atlantic, Article 2.2(b).

⁶¹ For instance, Final Declaration of the Third Conference on the Protection of the North Sea; Resolution of the Conference of the Parties (Fort Lauderdale Resolution), Criteria for Amendment of Appendices I and II, Ninth Meeting of the Conference of the Parties, Fort Lauderdale (USA), November 7-18, 1994, Resolution 9.24; 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973 CITES), 993 UNTS 243; 12 ILM (1973), 1085.

⁶² J Peel, *The Precautionary Principle in Practice – Environmental Decision-making and Scientific Uncertainty* (2005), 15; J Peel, “Precautionary only in Name? Tensions between Precaution and Risk Assessment in the Australian GMO Regulatory Framework” in E Fisher, J Jones & R Von Schomberg (eds) *Implementing the Precautionary Principle* (2006), 202, 204.

⁶³ This is also the concern of the Appellate Body in the *EC-Biotech*, in which it suggests that there remain questions regarding the precise definition and content of the precautionary principle. WT/DS291/R, WT/DS292/R, WT/DS293/R, Para. 7.88.

⁶⁴ R F Quijano, “Elements of the Precautionary Principle” in J A Tucker (ed) *Precaution, Environmental Science and Preventive Public Policy* (2003), 21, 23-26.

options; and society's inclinations.⁶⁵ Joel A Tickner develops a model for precautionary decision-making, which consists of 8 elements, such as a duty to take precautionary action in the face of uncertainty, goal for environmental and health protection, shifting burden of proof, decision making criteria, economic incentives.⁶⁶ Other efforts such as the Scottish Natural Heritage introduce a 10 step procedure for applying the precautionary principle.⁶⁷

In 2000, the EC adopted a mechanism to implement the precautionary principle.⁶⁸ It divided all elements into two categories, one being the triggering factors, and another the general principle of application. The former included an assessment of the potential consequences of inaction and of the uncertainties of the scientific evaluation that should be considered by decision-makers when determining whether to trigger action based on the precautionary principle; all interested parties should be involved to the fullest extent possible in the study of various risk management options that may be envisaged, once the results of the scientific evaluation and/or risk assessment are available and the procedure is as transparent as possible.⁶⁹ The latter category contains 5 principles to ensure the application of the precautionary principle will not cause unnecessary impact. These principles are proportionality, non-discrimination, consistency, examination of the benefits and costs of action and lack of action, and examination of scientific development.⁷⁰ Compared with the above mentioned proposals, the EC's mechanism seems to be more applicable and less complicated. However, how to put the principles in the second category into practice without inducing conflict remains to be seen.⁷¹

3.3 The Merits to Use the Article 5.7 Requirements to Embody the Precautionary Mechanism

3.3.1 The Connection between Article 5.7 and the Precautionary Principle

The general idea of Article 5.7 is very similar to the precautionary principle. This issue also appeared in the WTO *EC-Hormones*, *Japan-Varietals* and *EC-Biotech*

⁶⁵ N A Ashford, "A Conceptual Framework for the Use of Precautionary Principle in Law" in C Raffensperger and J Tickner (eds) *Protecting Public Health and the Environment* (1999), 198, 200.

⁶⁶ J A Tickner, "A Map Toward Precautionary Decision Making" in C Raffensperger and J Tickner (eds) *Protecting Public Health and the Environment* (1999), 162, 164-5.

⁶⁷ Scottish Natural Heritage, "Applying the Precautionary Principle in Practice: Natural Heritage Conservation in Scotland" in C Raffensperger and J Tickner (eds) *Protecting Public Health and the Environment* (1999) 187, 188-197.

⁶⁸ Commission of the European Communities, *Communication From the Commission on the Precautionary Principle*, Paras.5, 6 (Com (2000) 1) Brussels, 02.02.2000; available at http://europa.eu.int/comm/dgs/health_consumer/library/pub/pub07_en.pdf (last visit 2007/4/25).

⁶⁹ *Ibid*, 17.

⁷⁰ *Ibid*, 18-20.

⁷¹ It is interesting to note that Jan Bohanes introduces a procedure-based approach to insert the precautionary principle into the SPS Agreement. It is suggested that to adopt a procedure-oriented approach for the precautionary principle within the framework of the SPS Agreement is not only desirable, but, to some extent, feasible as well. However, re-interpretation of some of the provisions of the SPS Agreement is needed to accommodate this approach. J Bohanes, "Risk Regulation in WTO Law: A Procedure-Based Approach to the Precautionary Principle" (2002) 40 *Columbia Journal of Transnational Law* 323, 363-371, 376.

disputes. The *EC-Hormones* was a milestone that clarified the relevance between the precautionary principle and the SPS Agreement, especially Article 5.7; the *Japan-Varietals* merely made an echo to the former case; some new elements were added in the *EC-Biotech* to make it possible for Members to apply the precautionary principle under Article 5.7.

In response to the EC's claim, four aspects were pointed out by the Appellate Body in the *EC-Hormones* to stress the relationship of the precautionary principle to the SPS Agreement. These include, as amongst others, the fact that the principle has not been written into the SPS Agreement as a ground for justifying SPS measures that are otherwise inconsistent with the obligations of Members set out in particular provisions of that Agreement; the precautionary principle does not relieve a panel from the duty of applying the normal (i.e. customary international law) principles of treaty interpretation in reading the provisions of the SPS Agreement.⁷² Amongst others, the second aspect directly addresses the connection of Article 5.7 and the precautionary principle. It reads as follows:

The precautionary principle indeed finds reflection in Article 5.7 of the SPS Agreement. We agree... that there is no need to assume that Article 5.7 exhausts the relevance of a precautionary principle.

This clarification, at least, reveals the precautionary principle and the Article 5.7 are related to each other. The only matter, within the regime of the WTO, is whether it is possible to associate them with each other without violating WTO rules. However, if it is about the issues of the environment and health, which have no linkage with the WTO rules, the Appellate Body's statement seems to provide grounds for countries to use the four requirements of Article 5.7 of the SPS Agreement for precautionary purposes.

In addition, the Panel in *EC-Biotech* confirmed that GMO can be regarded as a type of the risks that listed in Annex A of the SPS Agreement.⁷³ This interpretation arguably expands the scope of the SPS Agreement to environmental issues.⁷⁴ Regardless the possible controversies that this interpretation may introduce,⁷⁵ to link the SPS Agreement and environmental regulatory measures together will make Article 5.7

⁷² WT/DS26/AB/R, para. 125.

⁷³ WT/DS291/R, WT/DS292/R, WT/DS293/R, Paras. 7.244-6, 7.370, 7.373-7.378.

⁷⁴ J Peel, "A GMO by any Other Name... Might be an SPS Risk!: Implications of Expanding the Scope of the WTO Sanitary and Phytosanitary Measures Agreement" (2007) 17(5) *The European Journal of International Law*, 1009, 1025.

⁷⁵ For instance, Jacqueline Peel suggests it is possible to foresee the application of the SPS Agreement to a range of environmental regulatory measures, and the SPS Agreement is taken into an entirely new territory of environmental risk management. *Ibid*, 1026. In addition, given the fact the SPS Agreement sets out a series of obligations for the Members to follow, the interpretation of the Panel in *EC-Biotech* dispute may increase Members' obligations, such as to seek sufficient scientific evidences and to conduct risk assessment, in adoption of environmental measures. It is debatable whether this interpretation consists with Article 3.2 of the UNDERSTANDING ON RULES AND PROCEDURES GOVERNING THE SETTLEMENT OF DISPUTES, which states: "Recommendations and rulings of the DSB cannot *add* to or diminish the rights and obligations provided in the covered agreements. (emphasis added)"

applicable to environmental measures, and strengthen the relationships of Article 5.7 and the Precautionary Principle.⁷⁶

3.3.2 *The Applicability of the Article 5.7 Requirements*

When comparing the various mentioned proposals that tend to figure out the content of, and the framework or model to implement the precautionary principle, the use of the four requirements of Article 5.7 of the SPS Agreement for a precautionary decision or measures is more suitable. It is a mechanism written in the context of the SPS Agreement and one which WTO Members have a right to enact.⁷⁷ This indicates three significant features that other proposals cannot share. First, this mechanism is accepted among 150 WTO Members, whereas the other proposals either remain as theories, or are applicable in limited cases. Second, Article 5.7 requirements are applicable to the practices of the WTO Members in the last decade, whereas other proposals are either too ideal, or too complicated to apply. Third, one of the aims that these four requirements achieve is to make sure the adopted provisional SPS measure is necessary to protect human, animal or plant life, or health, and will not constitute a disguised restriction on international trade. In other words, a measure, being a SPS or precautionary one, once it meets these four requirements to address risks in cases where scientific evidence is insufficient, remains less controversial, and can easily be recognised among countries. However, there is no guarantee that precautionary measures introduced, based on other academic or governmental proposals, will receive similar treatments.

3.3.3 *The Article 5.7 Requirements Reflect the Provisional Nature of Precautionary Measures*

One important merit to use the four requirements of the Article 5.7 to initiate precautionary measures is the feasibility of this mechanism. The first two requirements can be regarded as preconditions. They help the policy-makers to determine when to trigger precautionary management and how to initiate precautionary measures to handle the uncertainty. In the SPS Agreement, the precondition limits the adoption of the exceptional SPS measures to conditions where relevant scientific evidence is not clear or insufficient. In cases of the application of precautionary principle, the precondition, i.e. “insufficient scientific evidence”, can be substituted as “lack of full scientific certainty.” In other words, the key to use the preconditions of Article 5.7 of the SPS Agreement to initiate a precautionary measure is to follow the conceptual procedures of Article 5.7, and to replace the condition of “insufficient scientific evidence” to “scientific uncertainty.”⁷⁸

⁷⁶ In fact, in the *EC- Biotech* case, the panel was with a view that it is possible and justifiable for a Member to follow precautionary approach to adopt a SPS measure, but the condition is such an approach needs to be based on a risk assessment and applied in a manner consistent with the requirements of Article 5.1; WT/DS291/R, WT/DS292/R, WT/DS293/R, Paras. 7.3065. This not only indicates to apply the precautionary approach can be justified under the SPS Agreement, but also shows, at least it is the Panel’s view, in a risk assessment there should be a place for applying a precautionary approach.

⁷⁷ WT/DS291/R, WT/DS292/R, WT/DS293/R, Paras. 7.2927-7.2969.

⁷⁸ As a result, the distinction between “case where relevant scientific information is insufficient” and “scientific uncertainty” is not an essential issue that this paper aims to address.

The other two requirements can be considered as obligations to the countries that take a precautionary approach. These two requirements, to obtain the additional information necessary for a more objective assessment of risk, and to review the SPS measures within a reasonable period of time, substantially match the nature of the precautionary measures. In fact, precautionary measures, by their very nature, should be temporary. The precautionary measure is an expedient measure that is only justifiable when the scientific evidence about a risk remains uncertain. To borrow the obligations of the WTO Members to obtain the additional information necessary for a more objective assessment of risk to apply precautionary principle provides the policy-makers an opportunity to examine the justifiability of the precautionary measures when new scientific evidence is in place.⁷⁹ When risk assessment offers new scientific evidences to prove the original assumption of the cause of risk is correct and a measure as such to prevent the environment harm is necessary, the review process shall transform the precautionary measure into a regular measure, adopted based on scientific evidences. In cases where the risk assessment indicates the original assumption was incorrect, the precautionary measure shall be terminated in the review process. However, if no new scientific evidence is concluded in risk assessment, the precautionary measure remains in force temporarily to wait for new scientific evidence becoming available. Consequently, the obligations of Members to obtain additional information and to review measure within a reasonable period of time can ensure that the measures in question continue to be necessary, justifiable, efficacious and objective.

4. Conclusion

So as to authorize Members to take necessary action to deal with risks rising from importation of animal or plant products in cases where relevant scientific evidence is insufficient to protect human, animal or plant life or health, the drafters of the SPS Agreement designed a mechanism contains four requirements for the Members to follow with. As interpreted by the Appellate Body in the *Japan –Varietals* dispute, they are:

Pursuant to the first sentence of Article 5.7, a member may provisionally adopt an SPS measure if this measure is:

imposed in respect of a situation where “relevant scientific information is insufficient”; and

adopted “on the basis of available pertinent information”.

Pursuant to the second sentence of Article 5.7, such a provisional measure may not be mentioned unless the Member which adopted the measure

⁷⁹ Whether there could be disagreements about justified conclusions from subsequent risk assessments and how to solve this is beyond the issues that this paper aims to address. In fact, disagreements may occur in the application of Article 5.7 of the SPS Agreement. When no consensus is on the table among concerned Members and dispute occurs, dispute settlement may be the forum that Members can pursue to.

“seek[s] to obtain the additional information necessary for a more objective assessment of risk”; and

“review[s] the ...measure accordingly within a reasonable period of time”.

Given the fact that the theories embedded in Article 5.7 and the precautionary principle are very similar, and it is approved that the precautionary principle indeed finds reflection in Article 5.7 of the SPS Agreement, this paper seeks to propose to decision-makers in environmental and health fields that they apply these four requirements in initiating precautionary measures or actions. There are at least four advantages to support this approach. First, the relationship of the precautionary principle and the SPS Agreement has been repeatedly confirmed by the WTO Appellate Body. Second, being a provision in the SPS Agreement, the mechanism as set in Article 5.7 receives more acceptance than challenge, especially in comparison to the effects of other proposals or models that are proposed by individual scholars or institutions. Third, it is self-evident from the practices of Members on the SPS Agreement that the four requirements of Article 5.7 is a feasible mechanism for Members to handle risks when relevant scientific evidence remains insufficient. Finally, the four requirements along with the provisional approach, not only fit into the temporary nature of precautionary measures, but also keep the implementation of such measures in a necessary, justifiable, efficacious and objective manner.

In conclusion, the legal debate over the legal status of the precautionary principle is still ongoing, and there remain questions regarding the precise definition and content of the precautionary principle. This may be the fatal defeat of the precautionary principle to become a legal principle or international customary law. However, so as to render the notion of precaution feasible in cases where threats to the environment or health are serious and the outcomes irreversible, attention shall be focused on a practical issue rather than debates over the legal status of this principle. This issue is how to establish a mechanism for policy-makers to initiate precautionary measures, and how to ensure these measures are both with necessity and efficacy, and will not cause unwanted conflicts among the countries. The proposal in this paper, which suggests using the four requirements of Article 5.7 of the SPS Agreement for precautionary action, is only a starting point. Much remains to be done in the future.