Chapter 30

The Precautionary Principle and the Cartagena Protocol on Biosafety: Development of a Concept

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1. Introduction

The Precautionary Principle and the Cartagena Protocol on Biosafety (CPB) are considered as so intimately linked that a closer reflection on the evolution of this linkage seems to be superfluous. A review of the literature dealing with the CPB reveals that numerous publications that analyse and evaluate the CPB exist (e.g. Cosbey & Burgiel 2000; Eggers & Mackenzie 2000; Hardstaff 2000; Meyer; 2000, Newell & Mackenzie 2000; Hutchison 2001). Publications of authors, who themselves have observed or conducted the negotiations, reflect on the work leading towards the negotiations (1992–1995) and on the flow of the negotiations (1996–2000) (e.g. Leskien 1996; Eckelkamp et al. 1998; Gupta 2000; Swenarchuk 2000; Bail et al. 2002; Latorre et al. 2003; Mayr & Soto 2003). During this time, the 'If' and 'How' of the inclusion of the Precautionary Principle was highly controversial, and the opposition by some governments and stakeholders remained fundamental.

This chapter starts with a description of the development and contextualization of the concept in the negotiations of the documents of the Rio Summit in 1992. It then shows how the concept of the Precautionary Principle was developed in the negotiations of the Cartagena Protocol of Biosafety. The chapter is mainly based on the UN documents concerning these negotiations and the experience of the author, who followed the negotiations from 1997 until 2000 as an NGO observer. In the final part, the article describes how the WTO dispute settlement mechanism has decided in prominent cases, testing government import restrictions imposed in situations of scientific uncertainty. Until now, no decisions under the Cartagena Protocol based on the application of the Precautionary Principle have been taken that could be analysed. The chapter does not deal with the WTO case dealing with the EU GMO *de facto* moratorium and national GMO bans.

2. Genetic engineering and the Precautionary Principle at the Earth Summit in Rio 1992

Many stakeholders intended to use the UN Conference on Environment and Development in June 1992 in Rio de Janeiro as the crucial event to overcome the critical discussion on genetic engineering in the US and the EU, which has accompanied the development of the new technology. These actors wanted the results of the conference to support a fast and smooth adoption of genetically engineered (GE) plants worldwide. To this aim, Chapter 16 of Agenda 21 presented future benefits of genetic engineering especially for the developing countries and called for international support for developing the technology, but favoured a restriction on possible regulations concerning potential risks, at the national level.

2.1 Biotechnology and Rio: Leitmotif and camouflage

It was 1992 in Rio when the still controversial topics of 'biological diversity' and 'genetic engineering' were coupled for strategic reasons. Agenda 21 propagates the use of biotechnologies as particularly useful to protect and sustainably utilize biological diversity. The discussions at, and the outcome of, the Rio Summit laid the foundation for the debate of the following decade,

presenting the use of genetic engineering as a core technology for a 'greener' and more sustainable food production. At the level of text, the Rio documents speak of biotechnology in general, while at the level of substance, the application of gene technologies, only one of the many biotechnologies, was almost exclusively discussed.

This semantic and, finally also, legal vagueness was a result of:

- the influence of the US governmental positions reflecting its approach to GMO regulation
- the support of this position through a broad range of stakeholders from science and corporations
- the negligence of the topic, but also support of the US position, by European delegations.

2.2 The political conflict around the Precautionary Principle

With respect to risks of genetic engineering and application of the Precautionary Principle, the Rio documents reflect different positions.

2.2.1 Rio-Declaration: Reference to the precautionary approach

The Rio Declaration in its Principle 15 speaks of the 'precautionary approach'.[1] Principle 15 links precautionary activities with cost-benefit considerations. This linkage is a reflection of the changes in the environmental policy of the US under the Reagan administration in the 1980s. In order to give more protection to industrial activities and investments, the requirements for governmental interference were increased, and restrictions were increasingly required to be based on scientific evidence showing risks and proving damages. The importance of risk assessments and cost-benefit analyses and thus the role of scientists in the field of political decision-making was strengthened considerably.

2.2.2 Agenda 21: Silent on the Precautionary Principle and the precautionary approach

By analogy to the US regulations, Chapter 16 'Environmentally sound management of biotechnology' of Agenda 21 takes up the principle of familiarity as one guiding principle in GMO risk assessments.[2] Neither the Precautionary Principle nor the precautionary approach is mentioned in this chapter. Only a few paragraphs of Chapter 16 are dedicated to the aspects of risks and international cooperation in risk assessment and management – similarly sparse is the mention of international financial support for biosafety activities. Future biosafety agreements should be negotiated bilaterally or laid down in voluntary guidelines.

2.2.3 Convention on Biological Diversity: Reflecting the Precautionary Principle

Sensing the disproportion between the elements referring to genetic engineering and biosafety in the emerging Agenda 21 and anticipating its restrictive effect on possible future biosafety activities in the international framework, some governments from developing countries and Northern Europe as well as some civil society observers proposed a more effective consideration of risk aspects in the Rio documents (Nijar 1996; Mayr & Soto 2003: 13). The only text that

[1]Rio-Declaration, Principle 15: 'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.' http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=78&ArticleID=1163 (accessed July 2006)

[2]Agenda 21, Chapter 16.29: 'Several fundamental principles could underlie many of these safety procedures, including primary consideration of the organism, building on the principle of familiarity, applied in a flexible framework ...'http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=52&ArticleID=64&l=en (accessed July 2006)

could still be influenced for this purpose was the draft Convention on Biological Diversity (CBD). The negotiators of the CBD were able to bring a more stringent version of the Precautionary Principle into the text, but only in the preamble.[3] The CBD does not link precautionary activities with cost-benefit analyses and states that governments may act without having full scientific certainty. Article 19 'Handling of Biotechnology and Distribution of its Benefits' was amended by a paragraph that allowed the Member States to consider the necessity and content of an international agreement on GMO risk assessment.

3. UNEP Technical Guidelines for Safety in Biotechnology

The first international document which, based on the results of Rio, dealt with biosafety were the UNEP Technical Guidelines for Safety in Biotechnology (UNEP 1995). These guidelines were written to implement Chapter 16 of Agenda 21 and thus served as instrument for the introduction of GMOs in developing countries. The provisions were designed mainly by representatives of EU governments. In contrast, within the context of CBD Article 19.3, those delegations that were sceptical of the UNEP Guidelines worked towards the development of a more comprehensive international biosafety framework. In November 1995, at the second Conference of the Parties to the CBD, a working group was established, despite strong resistance from the EU and the US, to start the negotiations on the Biosafety Protocol. These negotiations began in 1996 and were finalized in January 2000 after six meetings of the Biosafety Working Group (BSWG), two sessions of the Extraordinary Conference of the Parties (ExCOP) in Cartagena and Montreal, and the intersessional informal meeting in Vienna. On 11 September 2003, the Cartagena Protocol on Biosafety entered into force.

4. The Precautionary Principle as an element of the Biosafety Protocol – An overview

In four paragraphs, the Biosafety Protocol reflects precautionary decision making: in the preamble, in Article 1 (Objective), in Articles 10 (Decision procedure) and 11 (Procedure for living modified organisms intended for direct use as food, feed, or for processing), and in Annex III paragraph 4 (Risk assessment) (UNEP 2000). The Protocol does not mention 'Precautionary Principle' but – quoting the Rio Declaration – uses 'precautionary approach'. The use of the wording 'Precautionary Principle' was blocked by the US, Australia and some other governments. The dispute is based on the legal point of view that the Rio Declaration itself contains the latter expression and that the Precautionary *Principle* is – still – not an internationally recognized principle of law. The US and supporting governments did not want the Biosafety Protocol negotiations to set a precedent and recognize the Precautionary Principle as a principle. The EU, represented by the European Commission, initially supported the inclusion of the Precautionary Principle in the preamble and the scope of the Protocol. The implementation of the principle by including it in the operational paragraphs on decision making was only supported by European negotiators in the final negotiation round. It was the African Group that, in the course of the negotiations, seized the historic moment and demanded the inclusion of the Precautionary Principle in the operational paragraphs of the Protocol. The African Group – which had represented like-minded developing countries since February 1999 – was able to keep the language in the text against the wishes of a strong group of industrialized countries until January 2000, at which point the EU was ready to support the African position on this issue.

[3]CBD preamble tiret 9: 'Noting also that where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat'http://www.biodiv.org/convention/articles.shtml?lg=0&a=cbd-00 (accessed July 2006)

4.1 The genesis of Cartagena Protocol provisions reflecting the Precautionary Principle

4.1.1 Biosafety Working Group 2 – May 1997

At the beginning of the biosafety negotiations, the Precautionary Principle had been introduced by the African Group, the EU and Canada in the preambular text (Table 30.1).

Table 30.1 The Precautionary Principle – start of the negotiations at BSWG-2

African Group	Canada	EU
Noting that, in accordance with the *precautionary principle*, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize risk where such a risk is posed by living modified organisms resulting from biotechnology …	Canada suggests that the Protocol may benefit from a 'Principles' section. One possible inclusion could be reference to the *precautionary principle* as defined in the Convention.	Noting that the provisions of the Protocol should contribute to protection in the field of biosafety, based on scientific risk assessment and the *precautionary principle* …

Source: UNEP (1997a): African Region p. 1; Canada p. 1; European Union p. 2 (emphasis added by the author)

4.1.2 Biosafety Working Group 3 – November 1997

When the negotiations ended in November 1997, the report contained the inputs of the African Group and the EU (UNEP 1997b). Canada's more specific suggestion for a 'principles' section was not taken up, but there was a third option calling for deletion of the reference to the Precautionary Principle.

4.1.3 Biosafety Working Group 4 – February 1998

The fourth round resulted in text that reflected the diversity of governmental positions in its numerous options for the individual articles and many square brackets, indicating non-consensus (UNEP 1998a). With regard to the preamble, the language of the African Group was generally accepted. During this session, for the first time a reference to the Precautionary Principle was introduced into the operational part of the draft protocol, serving as a basis for the later, final version of the treaty. Thus, the draft version of Article 6 presented the basic text on the application of the Precautionary Principle in government decision making under scientific uncertainty. Meanwhile, Annex II for the first time in the biosafety negotiations quoted the wording of the Rio Declaration – precautionary approach – instead of using the term 'principle'.

4.1.4 Biosafety Working Group 5 – August 1998

Apart from the African Group and the EU, several other countries also called for the inclusion of the Precautionary Principle in the text. (UNEP 1998b). Three developing countries and a country in transition (Peru, Thailand, Venezuela, Slovenia) demanded a reference to the principle in the draft article on decision making in the operational part of the Protocol. Norway and Thailand referred to the text of BSWG-4 and supported the wording 'precautionary approach' in Annex II. The participants of the fifth negotiation round expected this meeting to lead to a breakthrough, producing a final text with only controversy on some crucial matters. The Conference of the Parties of the CBD had called for a finalization of the biosafety negotiations in early 1999. These expectations could not be fulfilled, however, as the three negotiating blocks – Miami Group,[4] EU and the majority of the developing countries – could not work out compromises on the contentious issues (UNEP 1998c). In relation to the Precautionary Principle, BSWG-5 was actually a step backwards: all parts of the text that referred to the principle were bracketed, and no

[4]The Miami Group was formed by the USA, Canada, Argentina, Australia, Chile, and Uruguay: in 2000 the first three states harboured 99% of all commercial GE crop planting. Australia is a leading export country for agricultural products, Chile and Uruguay had been brought into the group to maintain a balanced North-South representation.

solution was in sight. In retrospect, the text of the draft article on decision making carried the core wording paving the way for the final Protocol text. The earlier phrase 'the State of import has the right to prohibit import of the LMO in question' was replaced by 'Decisions taken by the Party of import shall be based upon ...' The text did not explicitly state any longer that a Party has a right to ban GMO imports.

4.1.5 Biosafety Working Group 6 & Extraordinary Conference of the Parties – February 1999
The sixth and supposedly last negotiation round in February 1999 in Cartagena reached a compromise with regard to three of the four references to the Precautionary Principle. However, following extremely intense negotiations, BSWG-6 ended with a devastating result: In the early morning of 22 February 1999, two hours before the Extraordinary Conference of the Parties (ExCOP) was scheduled to adopt the Protocol text, 63 countries expressed their discontentment with the final 'Draft Text of the Chair' (UNEP 1999). During the next two days, nothing could break the deadlock. On 24 February at 6 a.m. the delegates were sent home for a 'break'. One of the crucial problems was the article on 'Decision procedure under the AIA', which was trying to define the conditions for the application of the Precautionary Principle.

BSWG-6 solved the struggle about the choice of words when it decided to replace 'Precautionary Principle' in the preamble and in Article 1 with 'precautionary approach'. This change may have substantial consequences when the Protocol is implemented nationally. The controversy about paragraph 4 in Annex II was solved when delegates agreed to give up using the words 'Precautionary Principle' and instead developed a definition of what they had in mind when arguing to subject the interpretation of the results of scientific risk assessments to the concept of the Precautionary Principle. This solution in the end led to a much better text because it did not simply name an approach, but defined it.

Only the article on decision making – at that time numbered as 8.7 – remained in brackets. The strategy applied to the risk assessment annex – abandonment of the emotive word but definition of the underlying approach – did not work in this case. The Miami Group could not agree to Article 8.7. Furthermore, the wording 'shall not prevent the Party of import from prohibiting the import' had been reintroduced into the text. On the final night of the negotiations, the European Commission presented a 'package' containing eight suggestions on the contentious matters, including the offer to delete article 8.7. It hoped to get the Miami Group on board with this renewed concession.

Observers were convinced that the Miami Group was only interested in diluting the Protocol text until it actually became meaningless. Some argued that if decision making under the Cartagena Protocol, and consequently decision making under national regulation implementing the Protocol, were not based on the Precautionary Principle, the power to define what is possible and what is not would be exclusively left to the WTO. In such a case, the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) with its article 5.7[5] would potentially offer more room in the struggle to apply and defend the Precautionary Principle than the Biosafety Protocol.
However, the WTO SPS Agreement is not an environmental agreement; its objective is not to protect the environment or biodiversity but to reduce trade barriers and to eliminate

[5]SPS 5.7: '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.'http://www.wto.org/English/docs_e/legal_e/15sps_01_e.htm (accessed July 2006)

discriminatory treatment in international trade (GATT 1947). In the context of a free trade agreement, countries have the right – if they do not violate the objective – to take measures 'necessary to protect human, animal or plant life or health'. Contrary to the Cartagena Protocol, the SPS Agreement does not recognize the ecosystem or any other holistic approach, and it refers to the health of living organisms as isolated individuals. In addition, the SPS definitions of possible risks would not fully cover the general concerns with regard to ecological risks of GMOs. The SPS Agreement speaks of risks 'arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms' or 'arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs'. From the perspective of ecological sciences it appears difficult to discuss possible disturbances of ecosystems or the further extinction of the soil-borne seed banks in agricultural soils through the application of highly efficient herbicides such as glyphosate, under the SPS Agreement.
Those delegates and observers who worked towards a 'strong' Biosafety Protocol meanwhile judged the rejection of the EU offer by the US as a stroke of luck. A coalition between the Miami Group and the EU would have driven the developing countries – which meanwhile formed the 'like-minded group' – into a complicated situation. They either would have had to agree to a Protocol text that no longer contained their main demands, or they would have had had to explain why they refused to accept this compromise.

4.1.6 Extraordinary Conference of the Parties – January 2000

In January 2000, the ExCOP session was reconvened. Just two months before, in November 1999 in Seattle (USA), at the ministerial meeting of the WTO, the direction of the international biosafety process, and thus the operationalization of the Precautionary Principle, was on a knife edge. During that meeting, a working group was meant to have been launched to incorporate the issues of biotechnology into the WTO work.[6] This venture, prominently supported by the European Commissioner for Trade, failed due to the determined counteractivities of the Ministers for environment from Denmark, France, Belgium, and Italy (Williams & de Jonquières 1999; Dawkins 2000) who, in an informal declaration, rejected the plans of their colleagues representing trade interests.[7] To strengthen the biosafety process, ten EU Ministers for environment and the European Commissioner for Environment took part at the final Montreal session in January 2000. On the other side of the table, the US and Canada were merely represented by higher administrative officials. This unequal balance of power led observers to speculate that the

[6]EC, Hungary, Japan, Korea, Switzerland, Turkey. 1999. Common Working Paper of the EC, Hungary, Japan, Korea, Switzerland and Turkey to the Seattle Ministerial Declaration of November 29, 1999: 16:'Immediate Decision at Seattle – Biotechnology-related issues: We agree to establish a working party with a fact-finding mandate on the relationship between trade, development, health, consumer and environmental issues in the area of modern biotechnology. The work of the group shall proceed in two phases. First, the group shall complete its identification and examination phase by the fourth session of the Ministerial conference, drawing on relevant work under way in the WTO and in other multilateral fora, including the codex, IPPC, the OECD as well as the bio-diversity convention. Second, using the results of this work, the group shall then present recommendations to the TNC with a view to clarifying these issues.'http://www.lex.unict.it/cde/documenti/rel_ester/98_99/jap01_12_99.htm (accessed July 2006)

[7]'Seattle WTO MinisterialProposal to establish a Working Group on BiotechnologyMeeting informally in Seattle, Environment Ministers from Denmark, United Kingdom, France, Belgium and Italy expressed opposition to the establishment of a WTO Working Group on Biotechnology within the structure of the new Round (as proposed by the US and Canada) for the following reasons:–The proper forum for deciding a multilateral approach to biotechnology issues is the ongoing process to agree a Biosafety Protocol to the Convention on Biological Diversity. This process would be undermined by the establishment of a WTO Working Group.–One of the EU's main priorities for the negotiation on the trade and environment relationship is to clarify the interface between Multilateral Environment Agreements and WTO rules. A WTO Biotechnology Working Group would run directly counter to this key objective by potentially subordinating the Biosafety Protocol negotiations to discussions in the Round, thereby setting a precedent for the WTO's relationship with other MEAs.–Biotechnology issues will arise naturally in some areas of the negotiations; there is, therefore, no need for a specific Working Group.'

struggle on the Precautionary Principle was going to be decided by the EU – now also representing the position of the developing countries.

4.1.6.1 Influence of civil society on the final negotiations

Although the biosafety negotiations had taken place in Montreal since 1997, only this last meeting in 2000 led to a significant engagement of Canadian civil society and the Canadian media. The failure of the WTO conference in Seattle and the crisis of the biosafety process in Cartagena – which in the eyes of many Canadian observers was partly caused by the activities of their own government – triggered broad public interest in the biosafety negotiations. Canadian NGOs organized a demonstration in bitterly cold weather, and meetings were held in the Universities. The Canadian Environment Minister was forced to appear at the negotiations after 'wanted' posters were distributed widely, urging for the defence of national environmental standards at the biosafety negotiations. Ironically, it had also been Canada who in 1997 suggested the inclusion of the Precautionary Principle in the Biosafety Protocol. Canadian NGOs erected a tent on the pavement outside the negotiation venue, which served as meeting place for activists and delegates, as an information centre and as public place for cheerful or critical words for passing delegates depending on their role in the current negotiations. This tent was the location in which on 30 January at 6 a.m. the young agreement was welcomed.

5. Decisions of the WTO on risk assessments, the Precautionary Principle and decision-making under scientific uncertainty

It is stated frequently that the application of the Precautionary Principle in GMO decisions will be incompatible with the provisions of the WTO, which only allow 'science-based' decisions. As already explained, the SPS Agreement of the WTO does allow temporary precautionary action in situations of scientific uncertainty. Import restrictions concerning GM crops using the SPS logic have already been implemented – but in a legal setting in which the SPS Agreement does not apply. For example, the Australian state Tasmania had adopted a moratorium on the planting of herbicide-tolerant GM rapeseed in 1999; in 2003 this moratorium was prolonged until 2008. Tasmania regards this rapeseed amongst others, as a potential weed (Government of Tasmania 2003). Tasmania and many other Australian States also claim that socio-economic risks accompany the introduction of GM crops, especially of GM rapeseed through the contamination of seeds and harvests.

Salient sources that help analyse trade-relevant decisions of WTO members regarding GM crops are the decisions of the WTO Appellate Body (AB) on the cases 'European Communities – Measures Concerning Meat and Meat Products (Hormones)' (WTO 1998a) and 'Australia – Measures Affecting Importation of Salmon' (WTO 1998b).

5.1 Risk assessments in the context of protecting human and animal health

In the 'hormone case', the AB defined the injected hormones as 'contaminants', in the sense of the SPS Agreement. It has yet to be seen how, in the light of the SPS Agreement, transgenes and their new proteins and properties would be defined. In this decision the AB has laid down essential criteria regarding the extent of certainty in scientific and economic risk assessments to make them suitable as a basis for a SPS decision. It explained that with respect to the SPS provision in Annex A 4 to evaluate 'the potential for adverse effects', a quantification of the risk or a development of thresholds is not obligatory. The risk assessment as a basis for an import restriction in order to protect animal or human health does not have to present a calculation of the risk, but has to show a potential for adverse effects on a scientific basis. Furthermore, the AB points out that 'theoretical uncertainty is not the kind of risk which, under Article 5.1, is to be

assessed'. With respect to existing or future import restrictions for GMOs, the WTO seems to have set certain minimal standards for a health-related risk assessment: it has to present an analysis that describes the potentials of risks in a scientifically plausible manner.

5.2 Risk assessments in the context of protection of the environment against introduced pests

It is clear that the SPS Agreement with regard to the protection of the environment against introduced pests sets significantly higher standards: Annex A 4 demands 'the evaluation of the likelihood of entry, establishment or spread of a pest or disease [...] and of the associated potential biological and economic consequences'. A decision under the Cartagena Protocol to restrict the import of a GMO to protect biodiversity is likely to fall under this SPS category. In paragraphs 120–124 of the 'salmon case' it is explained that a risk assessment cannot simply show potentials of adverse effects to justify an import restriction according to the SPS Agreement, but that it has to present at least a qualitative judgement of the probability of the risks within the context of possible plant protection measures. The AB confirms in paragraph 130 of its decision that in every case of import restriction a scientific risk assessment according to the provisions of the SPS Agreement has to be presented. However, the AB explicitly differentiates between the assessment of risks and the determination of the level of protection by the government. The AB states in paragraph 125 of its decision that nothing in the SPS Agreement prevents a member from taking a 'zero risk' decision.

5.3 Application of the Precautionary Principle

The aforementioned decisions of the AB have, however, nothing to do with the invocation of the Precautionary Principle in its strict sense – taking a decision under scientific uncertainty that is more favourable for the protection of health and environment than for the advancement of free trade. The governments that have restricted the trade in certain commodities have never based their decisions on SPS Article 5.7, which allows them to use the Precautionary Principle. They have always presented risk assessments that in their point of view were elaborated enough to scientifically justify an import ban. The decision in the 'hormone case' discusses but does not clarify the meaning of Article 5.7. The AB underlines that the decision of the European Commission to forbid the import of hormone-treated beef was not based on a risk assessment in conformity with the SPS Agreement, thus violating Articles 5.1 and 5.2. The report states 'that the European Communities has explicitly stated in this case that it is not invoking Article 5.7'. The Commission had never claimed to act in a situation of scientific uncertainty; from that point of view Article 5.7 cannot be applied. In paragraphs 124 and 125 of the 'salmon case' the AB presents an explanation of the relationship between the Precautionary Principle and the SPS Agreement, reiterating that precautionary decisions can be in accordance with the SPS Agreement. However, the text also states that the SPS Agreement does not name the Precautionary Principle and that this Principle, in contrast to the judgement of the European Commission, is not a 'general customary rule of international law or at least a general principle of law'. Consequently, there is no justification to make SPS-relevant decisions against the provisions of the SPS Agreement, especially in not abiding to the minimal standards of risk assessments.

It is unclear until today, what 'threshold' the SPS Agreement establishes to determine the critical amount of scientific uncertainty that would justify a decision based on Article 5.7.

6. Perspectives

The development of the provisions in the Cartagena Protocol on Biosafety is characterized by negotiation tactics and compromises. The Protocol defines the circumstances in which governmental decisions regarding GMOs can be based on the Precautionary Principle – without naming it. In other paragraphs it mentions the precautionary approach – which has its own distinct definition. On the one hand, the Protocol may cause disagreement amongst legislators and other societal groups which strive to implement it nationally. On the other hand, the Protocol is the first international, legally-binding instrument that provides a far-reaching definition of the application of the Precautionary Principle. Since the adoption of the Protocol, some government decisions concerning GMO import restrictions have used its provisions to justify their activities. It is highly likely that the interpretation of the CPB Articles 10.6 and 11.8 and of the SPS Article 5.7 will play a major role in the legal, scientific and public discussion about the relationship of multilateral environmental agreements and the WTO agreements. From the perspective of those experts and groups who are supportive of the Precautionary Principle, it will be important to defeat the argument that the WTO would forbid the application of the Precautionary Principle. The complex discussion within the WTO and the hitherto unresolved questions around SPS Article 5.7 have to be carried into the discussions about environmental policies and strategies.

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