

GMOs IN THE WTO: A CRITIQUE OF THE PANEL'S LEGAL REASONING IN *EC — BIOTECH*

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[The long-awaited decision of the World Trade Organization Panel in EC — Biotech is likely to reignite debate about whether it is legitimate for an international tribunal to trade off the competing values of liberalised trade and environmental protection when considering a precaution-based regulatory regime. In reaching its decision on the legality of the European Communities' precautionary approach to assessing the safety of imports of genetically modified organisms, the Panel had an opportunity to situate its judgment within the broader realm of public international law and to demonstrate an awareness of the interconnectedness of international instruments. This article argues that despite having such an opportunity, the Panel was unduly dismissive of relevant sources of international law outside the WTO framework. By declining to consider their relevance and to show an appropriate degree of deference towards WTO Members' regulatory autonomy, the legitimacy of the Panel's decision is likely to be called into question.]

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I INTRODUCTION

The safety of genetically modified organisms ('GMOs') is a highly sensitive issue in the European Union — a regulatory environment that has previously experienced food-related controversies.¹ The *European Communities — Measures Affecting the Approval and Marketing of Biotech Products*² dispute in the World Trade Organization implicated technical concerns about barriers to trade, scientific concerns about the nascent technology's potential for harmful effects and political concerns about the extent to which the *Agreement on the Application of Sanitary and Phytosanitary Measures*³ fetters the regulatory autonomy of sovereign actors. At stake was the legitimacy of the WTO dispute settlement process in adjudicating the complex area of science-based domestic regulation. The decision also had the potential to reignite debates about the intersection between international trade and international environmental law, with the concerns of domestic constituencies about the safety of biotech products⁴ set against the backdrop of European concerns about the EU's power vis-à-vis that of its individual Member States, and thereby the EU's democratic accountability to its citizens.⁵

This article evaluates the legitimacy of the decision of the WTO Panel in *EC — Biotech* by examining its treatment of non-WTO sources of public international law. The article does not directly examine the legitimacy of science-based regulation in the WTO,⁶ attempt an exhaustive exposition of the reasoning and implications of the *EC — Biotech* decision, or offer a treatise on the scope and application of the precautionary principle. Rather, based on a critique of the Panel's legal reasoning, it proposes a method of interpreting the relevant provisions of the *SPS Agreement* that is particularly relevant in areas of inchoate technology. This interpretation grants a greater degree of judicial deference to non-protectionist, science-based regulation, while being based on relevant tenets of public international law.

¹ *European Communities — Measures Affecting the Approval and Marketing of Biotech Products*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (27 May 2004) 32 (Amicus Curiae Brief: Lawrence Busch, Robin Grove-White, Sheila Jasanoff, David Winickoff and Brian Wynne), available from <http://csec.lancs.ac.uk/wtoamicus/amicus_brief_wto.pdf> at 1 October 2006 ('Expert Group Brief').

² WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) (Report of the Panel) ('*EC — Biotech*').

³ *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995), annex 1A (*Agreement on the Application of Sanitary and Phytosanitary Measures*) 1867 UNTS 493 ('*SPS Agreement*').

⁴ The term 'biotech products' refers to 'plant cultivars that have been developed through recombinant deoxyribonucleic acid ("recombinant DNA") technology': *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [2.2] (Report of the Panel).

⁵ See generally Joseph Weiler, 'The Transformation of Europe' in Joseph Weiler (ed), *The Constitution of Europe: 'Do the New Clothes Have an Emperor?' and Other Essays on European Integration* (1999) 10.

⁶ There is a reasonable body of literature on the relationship between science and law in the WTO: see, eg, Robert Howse, 'Democracy, Science and Free Trade: Risk Regulation on Trial at the World Trade Organization' (1999–2000) 98 *Michigan Law Review* 2329; Theofanis Christoforou, 'Settlement of Science-Based Trade Disputes in the WTO: A Critical Review of the Developing Case Law in the Face of Scientific Uncertainty' (2000) 8 *New York University Environmental Law Journal* 622.

Part II of this article provides institutional and legal context to the subsequent discussion of *EC — Biotech*. It considers the role that the WTO's judicial settlement organ, as well as integrity and coherence in its legal reasoning, can play in legitimising the WTO's dispute settlement mechanism. Noting the jurisprudence of the Appellate Body in *US — Shrimp*,⁷ Part II then explores the legitimising effect of utilising relevant non-WTO sources of international law in WTO dispute settlement.

Part III describes the *SPS Agreement* and then provides a précis of the *EC — Biotech* dispute. Part IV begins by drawing out two specific aspects of the Panel's decision: its reasoning regarding the role of non-WTO rules of international law, and its interpretation of the obligations that art 5.7 of the *SPS Agreement* places on WTO Members. It then analyses this reasoning and posits an obligation on Panels to consider relevant sources of non-WTO international treaty law when interpreting rights and obligations under art 5.7 of the *SPS Agreement*.⁸ Part IV then proposes an interpretive approach which takes account of relevant sources of treaty law and provides WTO Members with a greater degree of regulatory autonomy. The article suggests that by declining to countenance the use of external sources of international law in interpreting the *SPS Agreement*, the Panel missed an opportunity to situate its decision within the broader context of international environmental law, which negatively impacts on the legitimacy of the decision.

II THE INSTITUTIONAL AND LEGAL CONTEXT

A *Judicial Power as a Source of Legitimacy in the WTO*

Given the potential for tension between obligations arising as a result of WTO membership and Member governments' desire for autonomy, trade policy reflects a number of trade-offs that have the potential to give rise to a conflict between internal and external legitimacy. Internal and external legitimacy reflect two separate constituencies.⁹ Internal legitimacy connotes the legitimacy according to the players within the WTO — that is, the governments of Member

⁷ *United States — Import Prohibition of Certain Shrimp and Shrimp Products*, WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) (Report of the Appellate Body) ('*US — Shrimp*').

⁸ Article 5.7 provides a conditional exemption from the rigid rules of risk assessment that the *SPS Agreement* requires Members to deploy. The text of art 5.7 of the *SPS Agreement*, above n 3, reads:

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.

⁹ See Joseph Weiler, 'The Rule of Lawyers and the Ethos of Diplomats: Reflections on the Internal and External Legitimacy of WTO Dispute Settlement' (2002) 13 *American Review of International Arbitration* 177.

States and the ‘Geneva-based trade cognoscenti’.¹⁰ External legitimacy contemplates other stakeholders in the WTO — parliamentarians, consumers, industries and broader civil society, who are also affected by the WTO’s decisions. Weiler suggests that despite the formal legitimacy of WTO law as a compact entered into by sovereign actors, there is a risk that the external legitimacy of WTO agreements could be undermined by the interpretation of these agreements adopted by the judicial bodies of the WTO.¹¹ According to Howse, it is also possible that any perceived lack of external legitimacy may be addressed by an appropriate method of judicial interpretation.¹²

The effectiveness of the WTO’s adjudication system depends on the extent to which it maintains the ‘security and predictability [of] the multilateral trading system’¹³ in the ‘otherwise relatively weak realm of international norms’.¹⁴ The *DSU* provides that the dispute settlement process ‘serves to preserve the rights and obligations of Members under the covered agreements, and to clarify the existing provisions of those agreements in accordance with customary rules of interpretation of public international law’,¹⁵ thereby constraining the Appellate Body’s judicial role. This limited jurisdictional sphere attempts to maintain the appropriate balance between Members’ obligations under WTO law and their sovereign autonomy.

B Integrity and Coherence in Legal Reasoning

Integrity and coherence in the legal reasoning of supranational dispute settlement fora, such as that of the WTO, can contribute to their adjudicative legitimacy by ‘providing assurance that the tribunal’s decisions are not simply a product of its own personal choice of the values that should prevail in a given dispute’.¹⁶ Such integrity and coherence is especially important for supranational adjudicators as they ‘lack a monopoly [on] enforcement power’.¹⁷ Like courts in the domestic administrative law context, Panels and the Appellate Body must weigh and balance competing values,¹⁸ and are accountable to a range of

¹⁰ Jeffrey Dunoff, ‘The WTO’s Legitimacy Crisis: Reflections on the Law and Politics of WTO Dispute Resolution’ (2003) 13 *American Review of International Arbitration* 197, 197.

¹¹ Weiler, ‘The Rule of Lawyers and the Ethos of Diplomats’, above n 9, 189.

¹² Robert Howse, ‘The Legitimacy of the World Trade Organization’ in Jean-Marc Coicaud and Veijo Heiskanen (eds), *The Legitimacy of International Organizations* (2001) 355, 375.

¹³ *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995), annex 2 (*Understanding on Rules and Procedures Governing the Settlement of Disputes*) 1869 UNTS 401, art 3.2 (*DSU*).

¹⁴ Steven Croley and John Jackson, ‘WTO Dispute Procedures, Standard of Review, and Deference to National Governments’ (1996) 90 *American Journal of International Law* 193, 193.

¹⁵ *DSU*, above n 13, art 3.2.

¹⁶ Robert Howse, ‘Adjudicative Legitimacy and Treaty Interpretation in International Trade Law: The Early Years of WTO Jurisprudence’ in Joseph Weiler (ed), *The EU, the WTO and the NAFTA: Towards a Common Law of International Trade?* (2000) 35, 51.

¹⁷ David Palmeter and Petros Mavroidis, ‘The WTO Legal System: Sources of Law’ (1998) 92 *American Journal of International Law* 398, 402.

¹⁸ Robert Howse and Kalypso Nicolaïdis, ‘Legitimacy and Global Governance: Why Constitutionalizing the WTO is a Step Too Far’ in Roger Porter et al (eds), *Efficiency, Equity, Legitimacy: The Multilateral Trading System at the Millennium* (2001) 227, 244.

interests wider than those of the parties with standing to participate in the litigation.¹⁹ In weighing up competing economic and non-economic values,²⁰ Panels and the Appellate Body are no doubt cognisant that they lack direct democratic legitimacy²¹ and are acting as agents of WTO Members, entrusted to complete the task of interpreting the WTO agreements.²²

In addition, the text of the *Marrakesh Agreement*²³ is characterised by ambiguity and lacunae, which is largely a result of the multi-party negotiations that took place to agree upon the text of the treaty. The Appellate Body's judicial power²⁴ is essential as a means of interpreting this ambiguity,²⁵ and the legal nature of its decision-making arguably confers legitimacy on the WTO.²⁶ The Appellate Body has begun to create a coherent and consistent body of jurisprudence, due in part to the negative consensus rule,²⁷ and repeatedly disciplines Panels' decisions, emphasising a textual approach to interpretation.²⁸ The Appellate Body has been at pains to move away from the approach of GATT Panels, whose external legitimacy was undermined by a tendency to read the purpose of the agreement at issue into the particular provision they were required to interpret.²⁹ This approach 'almost always resulted in rulings tilted towards one particular value among the competing values at stake, namely that of liberal trade',³⁰ rather than balancing liberal trade and other values.³¹

¹⁹ Howse, 'The Legitimacy of the World Trade Organization', above n 12, 375.

²⁰ Dunoff, above n 10, 205.

²¹ Weiler describes this as 'another manifestation of the internal-external legitimacy paradigm': Weiler, 'The Rule of Lawyers and the Ethos of Diplomats', above n 9, 195-6.

²² See Joel Trachtman, 'The Domain of WTO Dispute Resolution' (1999) 40 *Harvard International Law Journal* 333, 338.

²³ The agreements that comprise the WTO compact are annexed to the treaty establishing the WTO: see *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) ('*Marrakesh Agreement*').

²⁴ As a check on the power of the Appellate Body, the Ministerial Conference and the General Council have the power to adopt definitive interpretations of WTO agreements by the agreement of three quarters of Members: *ibid* art IX:2.

²⁵ Trachtman, above n 22, 337.

²⁶ But see Weiler, 'The Rule of Lawyers and the Ethos of Diplomats', above n 9. Weiler argues that the wholesale import of legal culture — that is, norms, practices, and habits — into the dispute settlement process has had mixed results, including 'the prospect of having authoritative interpretations of clumsy or deliberate drafting of opaque provisions': at 185. According to Weiler, the transformation from a diplomatic to a juridified dispute settlement process has resulted in dissonance, leading in some cases to a 'zero-sum game' between internal legitimacy, which appears to be better served by the diplomatic approach, and external legitimacy, which is more palatable to the outside world: at 188.

²⁷ The *DSU* provides for automatic adoption of a Panel report within 60 days of issuance unless the Dispute Settlement Body ('DSB') decides by consensus not to adopt the report or one of the parties notifies the DSB of its intention to appeal: *DSU*, above n 13, art 4.7.

²⁸ Joshua Meltzer, 'State Sovereignty and the Legitimacy of the WTO' (2005) 26 *University of Pennsylvania Journal of International Economic Law* 693, 713.

²⁹ A key example is the well-known Panel decision in *US — Shrimp*, in which the Panel unidimensionally emphasised the supremacy of the value of liberalised trade, conflating the overall purpose of the *General Agreement on Tariffs and Trade* with that of its exceptions provision: see *US — Shrimp*, WTO Doc WT/DS58/R (15 May 1998) [7.30] (Report of the Panel).

³⁰ Howse, 'The Legitimacy of the World Trade Organization', above n 12, 385.

Some commentators allege that the Appellate Body indulges in judicial activism, in so far as it reads obligations into the text that WTO Members had not anticipated.³² However, it can also be argued that the Appellate Body's role in clarifying ambiguities and filling lacunae in treaty text renders the corpus of WTO law more coherent, predictable and dynamic.³³ According to Howse, rigorous legal analysis and maintaining consistency with previous decisions has added to the legitimacy of the decision-making of the Appellate Body, because such an approach provides a 'transparent, public basis for critique and contestability of the manner in which the tribunal has handled the legal materials in the presence of competing values'.³⁴ For example, in *EC – Hormones*, the Appellate Body reversed the Panel's allocation of the burden of proof for *SPS Agreement* cases³⁵ and its ruling that measures must 'tightly conform to international standards',³⁶ requiring that measures only be 'based on' such standards.³⁷ This is an instance of the Appellate Body upholding 'the crucial legitimizing role of the negotiated text'³⁸ and avoiding elevating Members' obligations to a 'constitutional *telos* of [liberalised] trade'.³⁹ The Appellate Body has also used a teleological approach to interpretation in cases in which a textual analysis does not yield a coherent result, as required by the *Vienna Convention on the Law of Treaties*.⁴⁰

C The Role of Public International Law

The WTO compact is not a 'self-contained' legal regime⁴¹ — the relationship between the WTO dispute settlement system and other rules of international law is still evolving. The *DSU* requires Panels and the Appellate Body to make decisions in accordance with customary rules of interpretation of public

³¹ For a discussion about the WTO's contractual balance between liberal and more protectionist values, see Richard Steinberg, 'Judicial Lawmaking at the WTO: Discursive, Constitutional, and Political Constraints' (2004) 98 *American Journal of International Law* 247, 262.

³² *Ibid* 247–8.

³³ *Ibid* 259.

³⁴ Howse, 'The Legitimacy of the World Trade Organization', above n 12, 384.

³⁵ *European Communities — Measures concerning Meat and Meat Products (Hormones)*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [103]–[106] (Report of the Appellate Body) ('*EC — Hormones*'). The burden of proof initially lies on the complaining party, who must establish a prima facie inconsistency with a particular *SPS Agreement* provision. The burden then shifts to the respondent to refute this claimed inconsistency.

³⁶ Lisa Mills, 'Terminating Agricultural Biotechnology? Hard Law, Voluntary Measures, and the Life Sciences Industry' in John Kirton and Michael Trebilcock (eds), *Hard Choices, Soft Law* (2004) 329, 332.

³⁷ The term 'based on' was examined by the Appellate Body in *EC — Hormones*, which found that a measure is based on a risk assessment if there is 'a rational relationship between the measure and the risk assessment': *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [193] (Report of the Appellate Body).

³⁸ Howse and Nicolaïdis, above n 18, 244.

³⁹ *Ibid* 229.

⁴⁰ Opened for signature 23 May 1969, 1155 UNTS 331, art 31 (entered into force 27 January 1980) ('*Vienna Convention*'). See also Howse, 'The Legitimacy of the World Trade Organization', above n 12, 386.

⁴¹ Joost Pauwelyn, 'The Role of Public International Law in the WTO: How Far Can We Go?' (2001) 95 *American Journal of International Law* 535, 577.

international law.⁴² However, they are precluded from making recommendations or rulings that add to or diminish Members' rights and obligations under WTO law.⁴³ In addition, they do not have jurisdiction to rule on claims of breaches of non-WTO rules of international law, such as rules of international environmental law contained in multilateral environmental agreements ('MEAs'). This limited jurisdiction maintains the internal legitimacy of the decision-making of both Panels and the Appellate Body by not allowing Members' rights and obligations under WTO agreements to be affected by separately justiciable obligations arising from treaties exogenous to the WTO.⁴⁴ While the jurisdiction of both Panels and the Appellate Body is limited, the *DSU* does not limit the sources of law that they may apply when interpreting WTO agreements.⁴⁵ Indeed, it can be argued that a Panel's obligation to 'make an objective assessment of the matter before it'⁴⁶ means that external sources of international law should inform the interpretation of WTO agreements. A way of ensuring integrity and coherence in legal reasoning, and therefore of enhancing the legitimacy of the WTO dispute settlement mechanism, is for Panels and the Appellate Body to carefully situate their jurisprudence within the realm of public international law. This is described by Charnovitz as a 'key challenge for the trade regime and one it is failing to meet'.⁴⁷

1 The Vienna Convention

The Appellate Body has stated that interpretations of WTO agreements must be guided by the canons of treaty interpretation as contained in the *Vienna Convention*.⁴⁸ This approach provides legitimacy to the decision-making of Panels and the Appellate Body by providing a consistent starting point for interpreting treaty text. Since the *Vienna Convention* rules of interpretation are also applicable to other areas of international law that prioritise interests and values other than trade liberalisation, such as the protection of human rights, their use provides further legitimacy to the WTO's dispute resolution process.⁴⁹

Article 31(3)(c) of the *Vienna Convention* requires that 'any relevant rules of international law applicable in the relations between the parties' (be they customary international law, general principles of law or treaty law) be taken into account in treaty interpretation.⁵⁰ The *Marrakesh Agreement* does not

⁴² *DSU*, above n 13, art 3.2.

⁴³ *Ibid.*

⁴⁴ Meltzer, 'State Sovereignty and the Legitimacy of the WTO', above n 28, 726–7.

⁴⁵ Pauwelyn, 'The Role of Public International Law in the WTO', above n 41, 561. Pauwelyn further notes that 'the limited *jurisdiction* of panels has led to unjustified restrictions on the distinct matter of *applicable law* before a panel': at 577 (emphases in original).

⁴⁶ *DSU*, above n 13, art 11.

⁴⁷ Steve Charnovitz, 'Comment by Steve Charnovitz' in Roger Porter et al (eds), *Efficiency, Equity, Legitimacy: The Multilateral Trading System at the Millennium* (2001) 253, 256.

⁴⁸ *United States — Countervailing Duties on Certain Corrosion-Resistant Carbon Steel Flat Products from Germany*, WTO Doc WT/DS213/AB/R, AB–2002–4 (28 November 2002) [61] (Report of the Appellate Body). The Appellate Body found that customary rules of interpretation of public international law, as required to be considered under art 3.2 of the *DSU*, were reflected in part in art 31 of the *Vienna Convention*, above n 40.

⁴⁹ Howse, 'The Legitimacy of the World Trade Organization', above n 12, 387.

⁵⁰ Clearly, rules of customary international law have wider scope of application than rules of international law embodied in treaties that have not been accepted by all members.

explicitly contract out of such rules, or contain a clause stating that its rules prevail over pre-existing law in the event of conflict. As there is no inherent hierarchy of treaty norms (apart from *jus cogens*), Panels and the Appellate Body must consider customary international law, WTO law and applicable external sources of international treaty law together, in accordance with rules on the interplay and conflict of norms.⁵¹ This includes both relevant sources of international law that were in existence before the *Marrakesh Agreement* was concluded (including certain international environmental and human rights rules) and non-WTO rules created subsequent to the *Marrakesh Agreement*.⁵²

Taking a wide interpretation of the sources of treaty law that are 'applicable in the relations between the parties' under art 31(3)(c) of the *Vienna Convention*, Pauwelyn argues that the provision permits Panels and the Appellate Body to consider a range of international treaty rules that is wider than those rules which bind all WTO Members — extending to rules that are 'at least implicitly accepted or tolerated by all WTO members, in the sense that [they] can reasonably be considered to express the *common intentions* or understanding of all members as to the meaning of the WTO term concerned'.⁵³

Given that Member governments have only limited means to override Appellate Body determinations,⁵⁴ it is a controversial proposition to suggest that using a treaty rule to assist in interpreting a WTO agreement even where the treaty rule did not bind all of the disputants⁵⁵ would add to the legitimacy of the Panel's decision. However, a distinction can be drawn in this regard between those treaties that are widely ratified within WTO membership but not accepted by all parties to a particular proceeding, and those treaty rules that are not widely accepted by WTO Members. Should a treaty-based rule of international law be widely accepted within WTO membership, its use as an interpretive aid by either a Panel or the Appellate Body could, according to the circumstances, be regarded as legitimate even if one of the disputants had not indicated acceptance of the rule.⁵⁶ Provided that concerns relating to the potential for this approach to override substantive WTO obligations can be addressed, this approach may strengthen the WTO's external legitimacy as it allows public international law to inform Members' rights and obligations whilst respecting the limited mandate of

⁵¹ Pauwelyn, 'The Role of Public International Law in the WTO', above n 41, 538. However, Pauwelyn notes that in reality a 'two-class society' exists between those 'rules of international law than can be enforced judicially ... and those that cannot': at 553.

⁵² Ibid 540–1.

⁵³ Ibid 575–6 (emphasis added). See also *European Communities — Customs Classification of Certain Computer Equipment*, WTO Docs WT/DS62/AB/R, WT/DS67/AB/R, WT/DS68/AB/R, AB–1998–2 (5 June 1998) [84] (Report of the Appellate Body).

⁵⁴ The means that Member governments have available to them are: adopting definitive interpretations by agreement of three quarters of WTO Members; or the more unlikely options of amending the relevant agreement or obtaining a 'negative consensus' refusal to adopt a dispute settlement report: see *Marrakesh Agreement*, above n 23, art IX:2.

⁵⁵ See *Vienna Convention*, above n 40, art 34. See also Michael Lennard, 'Navigating by the Stars: Interpreting the WTO Agreements' (1999) 5 *Journal of International Economic Law* 17, 37, stating his view that Palmetier and Mavroidis' interpretation of art 31(3)(c) is 'strained', in part because the *Vienna Convention* applies to the interpretation of treaties whether or not there is a dispute.

⁵⁶ Aside from states who persistently objected to the rule, which would be insulated from it.

Panels and the Appellate Body.⁵⁷ While it can be argued that in order to respect the doctrine of state consent,⁵⁸ the applicability of a rule of non-WTO treaty law in treaty interpretation should be contingent on whether the disputants are legally bound by that rule,⁵⁹ this more limited approach does not reflect the practice of the Appellate Body to date. In fact, the Appellate Body has adopted a broader approach to the applicability of non-WTO rules of treaty law, and this is discussed below.

2 International Environmental Law

Some commentators argue that adjudicative organs such as WTO Panels and the Appellate Body should have regard to the jurisdiction of other international fora, by: referring cases to more appropriate international fora; utilising the principle of inter-institutional comity where appropriate;⁶⁰ or deferring to non-WTO international institutions and norms.⁶¹ Howse and Nicolaïdis observe that because international trade is the core competency of the WTO, both Panels and the Appellate Body must be sensitive to the WTO's 'institutional strengths and weaknesses in relation to other actors who may have a particular expertise or a

⁵⁷ A related critique centres on the undesirability of 'constitutionalising' the WTO by importing environmental and other external sources of international law. Some commentators doubt the appropriateness of the Appellate Body performing a 'gatekeeper' role in respect of MEAs, as they are concerned that this may be perceived as endorsing a 'constitutionally pre-eminent role for the WTO' and thereby 'posit[ing] WTO-derived norms as hierarchically supreme': Joanne Scott, 'International Trade and Environmental Governance: Relating Rules (and Standards) in the EU and the WTO' (2004) 15 *European Journal of International Law* 307, 349. Another argument is that directly including areas such as environmental law in the ambit of WTO agreements, as a means to render these norms enforceable, would threaten the legitimacy of the WTO by destroying political will to use the organisation for its central purpose, namely lowering trade barriers: Howse and Nicolaïdis, above n 18, 227–8; Gary Horlick, 'Comments by Gary N Horlick' in Roger Porter et al (eds), *Efficiency, Equity, Legitimacy: The Multilateral Trading System at the Millennium* (2001) 259, 261.

⁵⁸ See *Vienna Convention*, above n 40, art 11, which outlines the means of expressing consent to be bound by a treaty.

⁵⁹ Joshua Meltzer, 'Interpreting WTO Agreements — A Commentary on Professor Pauwelyn's Approach' (2003–04) 25 *Michigan Journal of International Law* 917, 919.

⁶⁰ With regard to inter-institutional comity in the WTO, see *Mexico — Tax Measures on Soft Drinks and Other Beverages*, WTO Doc WT/DS308/AB/R, AB–2005–10 (6 March 2006) [53] (Report of the Appellate Body), where the Appellate Body declined to accept Mexico's argument that the dispute should be adjudicated under the *North American Free Trade Agreement*:

A decision by a panel to decline to exercise validly established jurisdiction would seem to 'diminish' the right of a complaining Member to 'seek the redress of a violation of obligations' within the meaning of Article 23 of the *DSU*, and to bring a dispute pursuant to Article 3.3 of the *DSU*: at [53].

Pauwelyn notes that Panels may not transfer jurisdiction to another body without the agreement of the parties: Joost Pauwelyn, 'The Use of Experts in WTO Dispute Settlement' (2000) 51 *International and Comparative Law Quarterly* 325, 332–3. See also Frieder Roessler, 'Are the Judicial Organs of the World Trade Organization Overburdened?' in Roger Porter et al (eds), *Efficiency, Equity, Legitimacy: The Multilateral Trading System at the Millennium* (2001) 308, 309.

⁶¹ Howse and Nicolaïdis, above n 18, 229.

particular stake in these laws and policies'.⁶² They argue this should be done by deferring to other international regimes with expertise in relevant areas such as health and environmental standards rather than being 'the final authority in the prioritization of diverse human and societal values'.⁶³ However, because international environmental law lacks judicial mechanisms capable of creating binding rulings, the WTO dispute settlement system has, to date, played a central role in adjudicating disputes concerning both trade and the environment.⁶⁴ In cases where applicable WTO law conflicts with other applicable international law, WTO law cannot provide the answer to all issues.⁶⁵ In view of the contestability and political sensitivity of these issues, as well as a concern to not diminish Members' rights and obligations under the WTO agreements, one view is that Panels and the Appellate Body should take a cautious approach to utilising international environmental law in interpreting relevant WTO treaty provisions.⁶⁶

The Appellate Body has exhibited willingness to recognise the potential for mutual supportiveness between trade and environmental agreements, and to take these sources into consideration. However, it has done so on a narrow rather than normative basis and, to date, as a means to weed out 'eco-protectionism'. For example, the Appellate Body in *US — Shrimp* took into account a number of MEAs as a means both to define relevant treaty terms and to clarify parties' rights and obligations.⁶⁷ The Appellate Body has also relied on the teleology of the treaty provision at issue as a means to discern Members' rights and obligations in the context of exceptions to general provisions of the *General Agreement on Tariffs and Trade*.⁶⁸ This willingness to be more 'forgiving' to Members who invoke trade restrictions pursuant to MEAs has occurred even without explicit consent to the relevant MEA by all disputants.⁶⁹ Based on Trachtman's observation that reluctance to utilise exogenous yet directly applicable norms of international law may create external legitimacy problems

⁶² Howse, 'The Legitimacy of the World Trade Organization', above n 12, 391. Howse notes that the importance of this legitimating factor is based on the conduct of pre-WTO GATT Panels, which assumed 'that they were enforcing a single value, free trade, from which perspective it would be hard to imagine that any other institution would have anything relevant to say that could compete, in terms of competence and authority, with the GATT itself': at 392.

⁶³ Howse and Nicolaïdis, above n 18, 230. However, Howse does not accept that this deference should require the WTO to yield to decisions of other bodies; rather, the WTO should make a determination of the matter at issue as it affects the WTO trade rules, but give weight to the other international bodies' analysis of the particular area: Howse, 'The Legitimacy of the World Trade Organization', above n 12, 391.

⁶⁴ Kati Kulovesi, 'A Link between Interpretation, International Environmental Law and Legitimacy at the WTO Dispute Settlement' (2005) 11 *International Trade Law and Regulation* 188, 189.

⁶⁵ Trachtman describes this as a 'procedural lacuna', but one which has 'substantive effects': Trachtman, above n 22, 338.

⁶⁶ Steinberg, above n 31, 262.

⁶⁷ WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) [130]-[134] (Report of the Appellate Body).

⁶⁸ *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995), annex 1A (*General Agreement on Tariffs and Trade*) 1867 UNTS 190 ('GATT'). See, eg, *US — Shrimp*, WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) (Report of the Appellate Body).

⁶⁹ Scott, above n 57, 311.

for the WTO,⁷⁰ implicit in the following analysis of *EC — Biotech* is that interpreting WTO agreements in a way that also takes account of relevant international environmental instruments can, to some extent, assuage concerns about the WTO's legitimacy among external stakeholders. This is because such an approach conveys a consistent and transparent understanding of relevant tenets of international law, thereby adding to the integrity and coherence of the WTO's judicial decisions.

III THE *SPS AGREEMENT* AND THE *EC — BIOTECH* DISPUTE

A *The SPS Agreement*

The *SPS Agreement* was included in the *Marrakesh Agreement* due to concerns that Members' domestic regulations in the area of sanitary and phytosanitary protection could constitute protectionist devices resulting in barriers to liberalised trade in agricultural goods.⁷¹ It was drafted with the aim of eliminating instances of 'embedded protectionism' by requiring transparency and coherency in regulation-making.⁷² The *SPS Agreement* requires that measures⁷³ be based on objective scientific analysis and only be applied 'to the extent necessary to protect human, animal or plant life or health',⁷⁴ encouraging Members to harmonise their measures, where possible, with exogenous international standards.⁷⁵ Due to these requirements, the *SPS Agreement* has the potential to significantly fetter WTO Members' regulatory autonomy.⁷⁶

While the *SPS Agreement* ensures that domestic safety standards do not represent a barrier to trade in agricultural goods, it does not appear to distinguish protectionist measures from non-protectionist domestic regulations that are based on societal values or consumer preferences rather than on science.⁷⁷ In doing so, the *SPS Agreement* views the lack of an SPS-compliant risk assessment as a proxy for protectionism.⁷⁸ Prior to *EC — Biotech*, the Appellate Body had heard

⁷⁰ Trachtman, above n 22, 349.

⁷¹ *SPS Agreement*, above n 3, preamble, art 1.1. Other regulations in the area of consumer protection are covered by *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995), annex 1A (*Agreement on Technical Barriers to Trade*) 1868 UNTS 120.

⁷² WTO Secretariat, *Understanding the WTO Agreement on Sanitary and Phytosanitary Measures* (1998) [18] <http://www.wto.org/english/tratop_e/sps_e/spsund_e.htm> at 1 October 2006.

⁷³ A definition of sanitary or phytosanitary measures ('SPS measures') is contained in the annex to the *SPS Agreement*, above n 3, annex A.1.

⁷⁴ *SPS Agreement*, above n 3, art 2.2. Members may also apply higher standards than the relevant international standard, as long as the higher standard has scientific justification or a consistent approach to risk assessment is taken: *SPS Agreement*, above n 3, art 3.3. See also WTO Secretariat, above n 72.

⁷⁵ *SPS Agreement*, above n 3, art 3.1.

⁷⁶ Meltzer, 'State Sovereignty and the Legitimacy of the WTO', above n 28, 720.

⁷⁷ Robert Howse and Petros Mavroidis, 'Europe's Evolving Regulatory Strategy for GMOs — The Issue of Consistency with WTO Law: Of Kine and Brine' (2000–01) 24 *Fordham International Law Journal* 317, 323–4.

⁷⁸ *SPS Agreement*, above n 3, art 5.

four cases involving the *SPS Agreement*, and in all cases the respondent's SPS measures were found to violate its obligations.⁷⁹

B Overview of the Dispute

In 2003, the US, Canada and Argentina requested the establishment of a dispute settlement panel, complaining that measures taken by the European Communities and its Member States were affecting imports of biotech products into the EU. It was alleged: that the EC had placed a de facto moratorium on the approval of biotech products;⁸⁰ that it had failed to approve certain specific biotech products;⁸¹ and that some of the EU Member States had maintained national marketing and import bans on biotech products, despite the products having been given prior approval by the EC.⁸²

The EC regime was based on two directives: *Council Directive 90/220/EEC*⁸³ and *Council Directive 2001/18/EC*.⁸⁴ Directives are primary legal instruments binding on all EU Member States, which must be implemented through legislative or administrative action.⁸⁵ The normative foundation of these directives was the precautionary principle,⁸⁶ and their policy objectives were protecting human health and the environment.⁸⁷ The directives outlined the administrative procedure to be followed where a company sought approval to place a biotech product on the market, including requiring prior approval to release GMOs into the environment or to market foods containing GMOs.⁸⁸

⁷⁹ See *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) (Report of the Appellate Body); *Australia — Measures Affecting Importation of Salmon*, WTO Doc WT/DS18/AB/R, AB-1998-5 (20 October 1998) (Report of the Appellate Body) ('*Australia — Salmon*'); *Japan — Measures Affecting Agricultural Products*, WTO Doc WT/DS76/AB/R, AB-1998-8 (22 February 1999) (Report of the Appellate Body) ('*Japan — Agricultural Products*'); *Japan — Measures Affecting the Importation of Apples*, WTO Doc WT/DS245/AB/R, AB-2003-4 (26 November 2003) (Report of the Appellate Body) ('*Japan — Apples*').

⁸⁰ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [4.132]–[4.133], [4.194], [4.253] (Report of the Panel).

⁸¹ *Ibid* [4.194], [4.253].

⁸² *Ibid* [4.134], [4.194], [4.253]. The Panel's ruling did not apply to the new regulatory framework that came into force in 2004, while the Panel was deliberating. Nor did the Panel express a view on the consistency of the new regime, arguing that this could be outside the Panel's terms of reference. These new laws require the European Food Safety Authority, as well as ministers and environment, health and safety experts from EU Member States, to examine applications for the approval of GMOs, with provision for the European Commission to make a decision where Member State representatives fail to agree on whether a particular product should be approved.

⁸³ [1990] OJ L 117/15.

⁸⁴ [2001] OJ L 106/1.

⁸⁵ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.423] (Report of the Panel).

⁸⁶ Francesco Sindico, 'The GMO Dispute before the WTO: Legal Implications for the Trade and Environment Debate' (Working Paper No 11, Fondazione Eni Enrico Mattei, 2005) 4, available at <<http://www.feem.it/NR/rdonlyres/D6C4B280-88C0-4D0C-A0D9-0F9AEE1EABAB/1432/1105.pdf>> at 1 October 2006.

⁸⁷ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.108] (Report of the Panel).

⁸⁸ *Ibid* [7.423], [7.109]. For an overview of the regulatory regime in place in the EC, see Jacqueline Peel, Rebecca Nelson and Lee Godden, 'GMO Trade Wars: The Submissions in the *EC — GMO Dispute in the WTO*' (2005) 6 *Melbourne Journal of International Law* 141, 150–6.

The Panel's decision did not address whether the EC's regulations were consistent with the *SPS Agreement*, but rather addressed the failure of the EC to properly apply its own SPS measures.⁸⁹ Therefore, the key issue according to the Panel was whether it was justifiable for the EC to delay the completion of approval procedures until the date of adoption of its new legislation on labelling and traceability. The EC had contended that the delays in product approvals were caused by requests for further information, which were 'prudent and responsible actions'⁹⁰ and integral to the approval process — rather than being a 'decision not to decide'.⁹¹ However, the Panel found against the EC in three areas: the EC's general moratorium on product approvals, the EC's product-specific measures, and EC Member States' bans on biotech products.

C Outcome of the Dispute

The Panel held that the EC had intentionally applied a de facto moratorium on product approvals during the relevant time period by various acts and omissions. These included effectively suspending consideration of applications for approval of biotech products, causing delays in assessing applications, and preventing the final approval of products.⁹² Noting that the obligations of WTO members, under annex C.1(a), were essentially 'good faith obligation[s] requiring Members to proceed with their approval procedures as promptly as possible, taking account of the need to check and ensure the fulfilment of their relevant SPS requirements',⁹³ the Panel concluded that the EC had not provided justification for the delay, and accordingly the delay could be characterised as 'undue'.⁹⁴ Rather than suspending applications pending the analysis of the relevant scientific evidence necessary for the completion of a risk assessment, the Panel found that the EC had 'followed an inexplicit common "plan or course of action" which consisted of preventing the final approval of applications pending the adoption of new EC rules on labelling and traceability'.⁹⁵ Consequently, the Panel found that the de facto moratorium, whilst not an SPS measure itself, affected the EC's SPS measures by causing delays in product approvals,⁹⁶ thereby breaching the procedural requirements of art 8 and annex C of the *SPS Agreement*.⁹⁷ The Panel reached the same conclusion in respect of 21 specific products.⁹⁸

⁸⁹ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [8.3]–[8.4] (Report of the Panel).

⁹⁰ *Ibid* [7.457].

⁹¹ *Ibid*. See also Sindico, above n 86, 12.

⁹² *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.1271]–[7.1275] (Report of the Panel).

⁹³ *Ibid* [7.1498].

⁹⁴ *Ibid*.

⁹⁵ *Ibid* [7.1339].

⁹⁶ *Ibid* [8.6].

⁹⁷ *Ibid* [8.14]. This is the first case in which a Member has been found in breach of this particular provision: see WTO, *Analytical Index: DSU, Agreement on Sanitary and Phytosanitary Measures* <http://www.wto.org/english/res_e/booksp_e/analytic_index_e/sps_03_e.htm#annCA> at 1 October 2006.

⁹⁸ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [8.18], [8.38] (Report of the Panel).

However, as the Panel did not find that the EC-level general moratorium and product-specific measures constituted ‘SPS measures’ within the meaning of annex A.1, it could not find a breach of art 5.1 or art 2.2, which only impose requirements on ‘SPS measures’ adopted by Members.⁹⁹ Nor was the EC found to have acted inconsistently with arts 5.5 or 2.3, which require Members to avoid arbitrary or unjustifiable discrimination in SPS measures, or art 5.6, which requires Members to ‘ensure that ... measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection’.¹⁰⁰

The Panel found that a de facto moratorium had also arisen in relation to the bans placed by individual EC Members on the import and marketing of biotech products at a national level. This was a result of five EC Member States publicly declaring that they would use their role in the approval process to prevent any new applications from being finally approved, pending the adoption of new EC legislation which was designed to ensure the labelling and traceability of all GMOs and GMO-derived products.¹⁰¹ The Panel found that the EC had responded by not making full use of the relevant procedures to complete the approval process.¹⁰²

Further, the Panel found that for each of the products at issue, the relevant EC scientific committee had reviewed the evidence and arguments submitted by its Members, but had not altered its previous decision to approve the products.¹⁰³ As the EC was previously able to perform a risk assessment that resulted in the products being approved for sale in the European market, this apparently meant that there was sufficient scientific evidence to preclude EC Member States from invoking art 5.7.¹⁰⁴ Therefore, the Panel concluded that the SPS measures adopted by the EC Member States had failed to meet the EC’s obligations under the *SPS Agreement*.¹⁰⁵

The Panel concluded that the EC had used a ‘procedural delay as a substitute for a substantive risk management measure’,¹⁰⁶ reasoning that ‘if procedural delay could be used ... as an instrument to manage or control risks, then Members could evade the obligations to be observed in respect of substantive SPS measures’.¹⁰⁷ However, the Panel noted that annex C.1(a) did not preclude a

⁹⁹ Ibid [8.14], [8.34], [8.50]. Article 5.1 requires that measures be based upon a risk assessment; art 2.2 requires that any measure ‘is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence’. Also relevant are: annex C.1(b), which requires Members to follow prescribed procedures in respect of processing approval applications; annex B.1 and art 7, which require prompt publication of a Member’s SPS measures and that other Members be notified of any changes in these measures; and art 10.1, which requires Members to ‘take account of the special needs of developing country Members’ when preparing SPS measures.

¹⁰⁰ *SPS Agreement*, above n 3, art 5.6.

¹⁰¹ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.1271] (Report of the Panel).

¹⁰² Ibid.

¹⁰³ Ibid [8.22]–[8.30]. For the text of art 5.7 of the *SPS Agreement*, see above n 8.

¹⁰⁴ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [8.09] (Report of the Panel).

¹⁰⁵ Ibid [8.10].

¹⁰⁶ Ibid [7.1517], [7.1264].

¹⁰⁷ Ibid [7.1517].

Member from following a precautionary approach appropriate to its desired level of protection, for example by requesting further information or clarification from the applicant when assessing and approving products containing GMOs.¹⁰⁸ In reaching its conclusion on this point, the Panel noted that the EC could have employed other, less trade-restrictive mechanisms, such as attaching conditions to approval decisions.¹⁰⁹

IV THE LEGITIMACY OF THE EC — BIOTECH DECISION

A The Panel's Use of Non-WTO Rules of International Law

1 Use of Vienna Convention Principles

Addressing the relevance of other sources of international law to the EC — Biotech dispute, the Panel defined the sources of law that it considered were ‘relevant rules of international law applicable in the relations between the parties’¹¹⁰ and thereby covered under art 31(3)(c) of the *Vienna Convention*. It noted that interpreting a treaty in light of these other rules of international law that are applicable in the relations between the parties, ‘ensures or enhances the consistency of the rules of international law applicable to these states and thus contributes to avoiding conflicts between the relevant rules’.¹¹¹ However, the Panel declined to cross-fertilise WTO law with relevant treaty-based sources of public international law, finding that the obligation to take account of these sources only applied to those rules that were binding on *all* WTO members, and not, for example, those treaty-based rules of international law that were binding between the disputants but not all other members.¹¹² This reasoning was also used by the GATT Panel in *US — Restrictions on Imports of Tuna*, although the report was never adopted by the GATT Contracting Parties.¹¹³ In so doing, it appears that the Panel in EC — Biotech may have obfuscated the distinction between the use of external sources of international law to inform the

¹⁰⁸ Ibid [7.1522].

¹⁰⁹ Ibid [7.1515].

¹¹⁰ *Vienna Convention*, above n 40, art 31(3)(c).

¹¹¹ EC — Biotech, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.70] (Report of the Panel).

¹¹² Ibid [7.68] (fn 241). In so doing, the Panel noted that art 31(3)(c) does not refer either to ‘one or more parties’ or to ‘the parties to a dispute.’ The Panel also noted that art 31 does not apply solely to treaty interpretation in a dispute settlement context.

¹¹³ GATT Doc DS29/R (16 June 1994) (Report of the Panel):

the Panel observed that the agreements cited by the parties to the dispute were bilateral or plurilateral agreements that were not concluded among the contracting parties to the *General Agreement*, and that they did not apply to the interpretation of the *General Agreement* or the application of its provisions. Indeed, many of the treaties referred to could not have done so, since they were concluded prior to the negotiation of the *General Agreement*. The Panel also observed that under the general rule of interpretation in the *Vienna Convention* account should be taken of ‘any subsequent practice in the application of the treaty which established the agreement of the parties regarding its interpretation.’ However, the Panel noted that practice under the bilateral and plurilateral treaties cited could not be taken as practice under the *General Agreement*, and therefore could not affect the interpretation of it: at [5.19].

interpretation of the relevant terms of the *SPS Agreement* in order to clarify members' rights and obligations under it, and the use of other rules of international law as *separately justiciable* or as prevailing over Members' substantive obligations under the *SPS Agreement*.

The systemic implication of the Panel's approach to art 31(3)(c) is that most rules of international law (except rules of customary international law) will not be taken into account in WTO dispute settlement, as it is unlikely that many rules of international law bind all 149 members of the WTO.¹¹⁴ The Panel's approach also means that the WTO would not be able to be responsive to the ongoing evolution of international law — requiring Members to use the rather onerous approach of amending the *Marrakesh Agreement*¹¹⁵ to take into account evolving norms and sources of international law.¹¹⁶

2 Use of International Environmental Law

Following its narrow reading of applicable sources of treaty law under art 31(3)(c) of the *Vienna Convention*, the Panel in *EC — Biotech* took a conservative approach to using international environmental law as an interpretive aid. While noting that art 31(1) of the *Vienna Convention* requires treaty terms to be 'interpreted in accordance with the ordinary meaning [of the terms of the treaty] in their context and in the light of their purpose',¹¹⁷ the Panel was of the view that exogenous rules of international law could assist in treaty interpretation 'in the same way that dictionaries do', rather than 'because they are legal rules'.¹¹⁸ Stating that such sources were only useful in terms of 'establishing, or confirming, the ordinary meaning of the treaty terms', the Panel concluded that it did not find it useful to take the *Convention on Biological Diversity*¹¹⁹ or the *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*¹²⁰ into account, because they were not 'informative'.¹²¹

B The Panel's Characterisation of Article 5.7

Article 5.7 of the *SPS Agreement*, rather than being an exception to the requirements of art 5.1 and art 2.2, allows Members to provisionally adopt SPS measures limiting market access in respect of particular products where relevant

¹¹⁴ WTO Secretariat, *Understanding the WTO: Members and Observers* (2005) <http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm> at 1 October 2006. See also Meltzer, 'Interpreting WTO Agreements', above n 59, 919.

¹¹⁵ Article X of the *Marrakesh Agreement* requires a two thirds majority in the absence of consensus, and only binds those Members who accept the amendment: see *Marrakesh Agreement*, above n 23, art X.

¹¹⁶ Meltzer, 'Interpreting WTO Agreements', above n 59, 920.

¹¹⁷ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.92] (Report of the Panel).

¹¹⁸ *Ibid.*

¹¹⁹ Opened for signature 5 June 1992, 1760 UNTS 79 (entered in force 29 December 1993).

¹²⁰ Opened for signature 29 January 2000, 39 ILM 1027 (2000) (entered into force 11 September 2003) ('*Cartagena Protocol*').

¹²¹ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.74]–[7.75] (Report of the Panel).

scientific evidence is insufficient.¹²² Provisional measures must be reviewed within a reasonable period of time with a view to adopting measures which are based on a risk assessment that takes into account relevant international standards, and are thereby compliant with art 5.1.

The Appellate Body's jurisprudence on art 5.7 has varied in the emphasis it places on the role of a precautionary approach. In *EC — Hormones* and *Japan — Agricultural Products*, the Appellate Body found art 5.7 to be a 'qualified exemption from the obligation ... not to maintain SPS measures without sufficient scientific evidence'.¹²³ However, in *Japan — Apples* the Appellate Body found that once a risk assessment was possible under art 5.1, provisional measures under art 5.7 become unavailable, and consequently rejected Japan's claim that following a previous risk assessment, scientific uncertainty could trigger a Member's right to adopt a provisional measure.¹²⁴

Assisted by prior Appellate Body jurisprudence, the Panel in *EC — Biotech* found that art 5.7 could be characterised as a 'right' rather than an exception from the general obligation under art 2.2.¹²⁵ However, it went on to consider art 5.7 through the lens of art 5.1. Relying on the reasoning of the Appellate Body in *Japan — Apples*, the Panel found that once a risk assessment could be made under art 5.1, adopting a provisional measure under art 5.7 was no longer possible in respect of that product.¹²⁶ Therefore, EC Member States would have had to present their own, novel risk assessment that accorded with the requirements of art 5.1 in order to avoid having to rely on the previous risk assessment made at the EC level. The Panel reasoned that because art 5.1 contained 'implicit references' to art 5.7, an assessment of a Member's SPS measures must be performed first by analysing art 5.1 to determine, inter alia, whether sufficient scientific evidence existed.¹²⁷ The Panel found that only after an examination of the measure under art 5.1 could the measures be assessed under art 5.7.¹²⁸ However, the Panel found that art 2.2 remains applicable where a Member invokes a provisional measure — apart from the requirement that the measure be based on 'sufficient scientific evidence'.¹²⁹ Accordingly, art 5.7 required that a measure be applied at the least trade-restrictive level, taking account of available pertinent information.¹³⁰

¹²² Catherine Button, *The Power to Protect: Trade, Health and Uncertainty in the WTO* (2004) 114–15. Button notes that the *SPS Agreement* does not acknowledge the 'existence of a spectrum of scientific evidence' and instead posits a simple 'bifurcation of regulatory measures', which is problematic in terms of scientific method.

¹²³ *Japan — Agricultural Products*, WTO Doc WT/DS76/AB/R, AB-1998-8 (22 February 1999) [80] (Report of the Appellate Body). See also *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [124] (Report of the Appellate Body).

¹²⁴ *Japan — Apples*, WTO Doc WT/DS245/AB/R, AB-2003-4 (26 November 2003) [179] (Report of the Appellate Body).

¹²⁵ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.2969] (Report of the Panel).

¹²⁶ *Ibid* [7.3007].

¹²⁷ *Ibid* [7.2994].

¹²⁸ *Ibid* [7.2992], [7.3007].

¹²⁹ *Ibid* [7.2977].

¹³⁰ *Ibid* [7.2992].

C *Implications of the Panel's Reasoning*1 *A Marked Diminution in Members' Ability to Adopt a Precautionary Approach*

Requiring a full art 5.1 risk assessment on the basis that it had previously been determined that sufficient scientific evidence existed¹³¹ severely curtails the ability of EC Member States to provisionally ban GMOs or particular products containing GMOs on the basis of new and alarming evidence of risk.¹³² According to the Panel's reasoning, an EC Member State would never be able to utilise provisional measures pursuant to art 5.7 because the EC's previous risk assessment means that 'sufficient scientific evidence' exists, and will *always* exist. This means that new evidence showing a greater degree of uncertainty regarding risk than that which was previously understood could never trigger a provisional measure, even where a risk assessment compliant with art 5.1 was not possible and where no relevant international standards taking account of the new information existed. This reasoning has the broader implication of markedly diminishing Members' autonomy to be responsive to evolving scientific knowledge by taking a precautionary approach under art 5.7.

2 *The Impact of Uncertainty on Sufficiency of Evidence*

In *EC — Hormones*, the Appellate Body held that the avenues available for Members to apply a precautionary approach include the provisions of the *SPS Agreement* that allow Members to set an appropriate level of protection relating to whether scientific evidence can be considered 'insufficient' for the purposes of art 5.7.¹³³ The Appellate Body stated that divergent views in the scientific community may indicate a state of scientific uncertainty, and that in some cases 'responsible and representative governments may act in good faith on the basis of what, at a given time, may be a divergent opinion coming from qualified and respected sources'.¹³⁴ In so doing, the Appellate Body appeared to indicate that scientific uncertainty might preclude a full risk assessment because of a dearth of scientific evidence, and that in such cases, the Panel or the Appellate Body would afford a measure of deference to a Member's SPS measures on that basis.

By following *Japan — Apples*,¹³⁵ in which the Appellate Body held that the application of art 5.7 relates to *insufficiency* of scientific evidence, rather than

¹³¹ Ibid [7.2940]. The reasoning is somewhat puzzling, as earlier in the report the Panel appears to have stated that new evidence, rather than a new risk assessment, could justify a provisional ban, stating:

if new scientific evidence comes to light which conflicts with available scientific evidence and which is directly relevant to all biotech products ... we think that it might, depending on the circumstances, be justifiable to suspend all final approvals pending an appropriate assessment of the new evidence: at [7.1532].

¹³² Joost Pauwelyn, 'New Jewels Buried in 1000+ Pages GMO Report', *International Economic Law and Policy Blog* (2006) <http://worldtradelaw.typepad.com/ielpblog/2006/03/new_jewels_buri.html> at 1 October 2006.

¹³³ *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [29] (Report of the Appellate Body).

¹³⁴ Ibid [194].

¹³⁵ *Japan — Apples*, WTO Doc WT/DS245/AB/R, AB-2003-4 (26 November 2003) [184] (Report of the Appellate Body).

scientific *uncertainty*, the Panel in *EC — Biotech* did not elaborate on the influence of uncertainty in determining whether, in a particular case, scientific evidence is insufficient. Nor did the Panel appear to consider whether the level of uncertainty could be a factor in determining whether the available scientific evidence is sufficient for a risk assessment. This factor is particularly important in situations in which scientific uncertainties endure despite an accumulation of scientific evidence. The Panel's approach does not appear to take account of the nature of scientific knowledge and decision-making as contingent, constantly evolving and inexact, in contrast to judicial decision-making, which requires certainty and a binding decision to be made at a particular point in time.¹³⁶

As the Panel found that the scientific evidence was sufficient for the EC to approve the relevant products, it was not prepared to take the EC Member States' desired level of protection into account when assessing whether the EC safeguard measures were taken in response to insufficient scientific evidence.¹³⁷ However, there are some key distinctions between the *EC — Biotech* dispute and previous *SPS Agreement* cases, which arguably affect the weight that the Panel should have given to the desirability of allowing Members to invoke a precautionary approach despite the previous EC-level risk assessment and approval of the products, meaning that greater weight should be placed on the uncertainty of scientific evidence when assessing its sufficiency. These key distinctions are:

- *Low certainty and low consensus* in respect of the scientific knowledge, analytic methods and values relied upon in risk assessment, compared with previous *SPS Agreement* cases in which the subject matter was characterised by high certainty and high consensus;¹³⁸
- *Regulatory hierarchy*: the *EC — Biotech* dispute concerned two layers of executive decision-making, and thereby two different political and cultural contexts;¹³⁹ and
- *Perceived risks at issue*: rather than being confined to specific products such as fruit species, the dispute invoked broader concerns about risks to biodiversity and human health.

Given these factors, it is arguable that the Panel could have adopted a more deferential approach to the EC Member States' decision to take a precautionary approach in setting their acceptable level of risk and implementing measures giving effect to their concern about uncertain risks. Instead, the Panel adopted an approach that marginalises art 5.7 by effectively rendering it inutile where a product had previously been approved.

¹³⁶ Pauwelyn, 'The Use of Experts in WTO Dispute Settlement', above n 60, 355–6. With regard to the inherent uncertainty in scientific enquiry, see Button, above n 122, 78–9.

¹³⁷ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.3298] (Report of the Panel).

¹³⁸ Expert Group Brief, above n 1, 5.

¹³⁹ *Ibid* 15.

D *The Relevance of International Environmental Law to a Precautionary Approach*

The following analysis is based on the view that the WTO dispute settlement system is competent to take into account exogenous rules of international law in so far as they assist in clarifying members' rights and obligations under WTO agreements, while bearing in mind that Panels and the Appellate Body cannot enforce non-WTO norms as stand-alone binding rules of international law.¹⁴⁰ This, in turn, is based on the presumption that treaty norms do not conflict, which assumes that treaty-makers have existing international law in mind when negotiating a new treaty.¹⁴¹ As discussed earlier, the Appellate Body has modestly supported the application of relevant international rules contained in MEAs.¹⁴² In *US — Shrimp*, the Appellate Body found that while international environmental laws do not create independent positive obligations for WTO Members, under art 31(1) of the *Vienna Convention* Panels and the Appellate Body are entitled to use these additional sources as a means of clarifying parties' rights and obligations under WTO law. Sources utilised by the Appellate Body in *US — Shrimp* included treaties to which one of the parties to the dispute was not a signatory, or which they had signed but not ratified.¹⁴³ These included the *Convention on Biological Diversity* (which the US had signed but not ratified) and other relevant instruments which were analysed in the context of evaluating whether certain unilateral measures constituted an unjustifiable limitation on liberalised trade under *GATT* art XX.¹⁴⁴ The Appellate Body in *US — Shrimp* also noted that the conservation of exhaustible natural resources — a transboundary issue — required an attempt at international cooperation before a unilateral measure could be invoked, to avoid claims of unjustifiable discrimination.¹⁴⁵ In doing so the Appellate Body read the duty into the relevant clause of the *GATT* rather than finding separate, justiciable obligations. The Appellate Body referred to the preamble¹⁴⁶ of the *Marrakesh Agreement*, which included a reference to the desirability of sustainable development. It opined that the relevant treaty terms must be interpreted in the light of the perspective

¹⁴⁰ Pauwelyn, 'The Role of Public International Law in the WTO', above n 41, 561–2.

¹⁴¹ *Ibid* 550.

¹⁴² See above Part II(C)(2).

¹⁴³ *US — Shrimp*, WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) [168] (Report of the Appellate Body). The sources included: *United Nations Convention on the Law of the Sea*, opened for signature 10 December 1982, 1833 UNTS 3 (entered into force 16 November 1994); *Convention on the Conservation of Migratory Species of Wild Animals*, opened for signature 23 June 1979, 1651 UNTS 333 (entered into force 1 November 1983); *Convention on International Trade in Endangered Species of Wild Fauna and Flora*, opened for signature 3 March 1973, 993 UNTS 243 (entered into force 1 July 1975). The Panel also referred to: United Nations Environment Program, *Rio Declaration on Environment and Development*, annex, UN Doc A/CONF.151/26/REV.1 (12 August 1992) ('*Rio Declaration*'); Agenda 21, as contained in *Report of the United Nations Conference on Environment and Development*, annex II, UN Doc A/CONF.151/26/Rev.1(Vol.I) (12 August 1992).

¹⁴⁴ *GATT*, above n 68, art XX provides an exception to Members' obligations of non-discrimination.

¹⁴⁵ *US — Shrimp*, WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) [168] (Report of the Appellate Body).

¹⁴⁶ See *Vienna Convention*, above n 40, art 31(2) which states that the 'context', for the purpose of the interpretation of a treaty, 'includes its preamble'.

embodied in the preamble, which recognises the need to both ‘protect and preserve the environment and to enhance the means for doing so’.¹⁴⁷ Furthermore, in *EC — Hormones*, the Appellate Body observed that the negotiated treaty text reflected ‘a delicate and carefully negotiated balance ... between [the] shared, but sometimes competing interests of promoting international trade and of protecting the life and health of human beings’.¹⁴⁸ While the duty to attempt to find a multilateral solution before invoking unilateral trade restrictions, as established by the Appellate Body in *US — Shrimp*, is arguably specific to matters of transboundary harm, or matters requiring international cooperation (such as conservation of threatened species),¹⁴⁹ and despite differences between the legal matters at issue in *EC — Biotech* compared to *US — Shrimp*,¹⁵⁰ it is argued that the Appellate Body’s procedural step of utilising international environmental law — both to define relevant treaty terms and to determine whether, in the circumstances, the respondent’s trade-restrictive measure was justifiable — is more broadly applicable. This interpretive approach incorporates both textual and teleological facets, and is described by Scott as ‘a relaxation of WTO constraints [applicable] where the contested measure has been introduced pursuant to a right established by an MEA’.¹⁵¹ The approach provides the basis for reading external sources of international environmental law into the applicability of arts 5.1 and 5.7, rather than the *EC — Biotech* Panel’s approach whereby a provisional measure employed under art 5.7 was no longer available following a risk assessment made under art 5.1 with ‘sufficient scientific evidence’.

¹⁴⁷ *Marrakesh Agreement*, above n 23, preamble; *US — Shrimp*, WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) [12] (Report of the Appellate Body). The Appellate Body also noted the significance of the creation of the Committee on Trade and Environment, which signalled Ministers’ intentions to promote sustainable development while acting for the protection of the environment, and one of the main roles of which is to examine the interface between the WTO agreements and MEAs: see *Decision on Trade and Environment*, WTO Doc WT/CTE/W/40 (12 November 1996), annex 1C (Report of the 1996 Committee on Trade and Environment). However, Trachtman describes the Committee as a ‘talking shop’ rather than having made any impact on the issues within its mandate: Trachtman, above n 22, 364.

¹⁴⁸ *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [193] (Report of the Appellate Body).

¹⁴⁹ However, note that in *United States — Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WTO Doc WT/DS285/AB/R, AB-2005-1 (7 April 2005) [291]–[318] (Report of the Appellate Body) the Appellate Body, using art XIV of the *General Agreement on Trade and Services* (which serves the same purpose as *GATT* art XX under which *US — Shrimp* was decided), rejected the requirement, in the *GATS* context, that the respondent negotiate a bilateral solution with the complainant.

¹⁵⁰ When considering the differences between *US — Shrimp* and *EC — Biotech*, it should be noted that art XX of the *GATT*, under which *US — Shrimp* was decided, provides an exception to Members’ obligations of non-discrimination, whereas the exception contained in art 5.7 of the *SPS Agreement*, which is the focus of *EC — Biotech*, is a conditional right with attendant *sui generis* obligations. Further, *US — Shrimp* was decided in the context of protectionist conduct by the respondent, whereas protectionism did not appear to be the key driver of the EC’s regulations.

¹⁵¹ Scott, above n 57, 340.

1 *The Relevance of the Precautionary Principle*

The *DSU* does not provide for formal *stare decisis* in WTO law,¹⁵² but the Appellate Body has stated that previous decisions ‘should be taken into account’.¹⁵³ This means that Panels are required to follow previous decisions unless they can provide coherent reasons as to why the jurisprudence of the Appellate Body should not be followed.¹⁵⁴ This method is described by Helfer and Slaughter as providing ‘an autonomous bulwark of legitimacy’.¹⁵⁵ In *EC — Hormones*, the Appellate Body held that it was unclear whether the precautionary principle had crystallised into a principle of general or customary international law,¹⁵⁶ stating that it was ‘unnecessary, and probably imprudent’ to express a view.¹⁵⁷ It was unsurprising, therefore, that the Panel in *EC — Biotech* declined to express a view on whether the precautionary principle comprised either customary international law or a general principle of international law,¹⁵⁸ stating that ‘prudence suggests we not attempt to resolve this complex issue ... for the purposes of disposing of the legal claims before us, we need not take a position’.¹⁵⁹ It is noteworthy, however, that while declining to rule on the precautionary principle’s status in international law, the Appellate Body in *EC — Hormones* considered that the principle ‘found reflection’ in art 5.7 of the *SPS Agreement*,¹⁶⁰ and that there was ‘no need to assume that Article 5.7 exhausts the relevance of a precautionary principle’.¹⁶¹ In doing so, it appears that the Appellate Body implied that rules of international law outside the WTO agreements can play a role in interpreting a WTO treaty provision where the treaty provision is reasonably connected to an external rule of international law

¹⁵² *Stare decisis* is not followed formally in international tribunals in part because many civil law jurisdictions do not utilise the principle: see Steinberg, above n 31, 254.

¹⁵³ *Japan — Taxes on Alcoholic Beverages*, WTO Docs WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, AB-1996-2 (4 October 1996) 15 (Report of the Appellate Body).

¹⁵⁴ Howse, ‘The Legitimacy of the World Trade Organization’, above n 12, 391.

¹⁵⁵ Laurence Helfer and Anne-Marie Slaughter, ‘Toward a Theory of Effective Supranational Adjudication’ (1997–98) 107 *Yale Law Journal* 273, 319.

¹⁵⁶ Sources of the precautionary principle include: *World Charter for Nature*, GA Res 37/7, UN GAOR, 37th sess, 48th plen mtg, UN Doc A/RES/37/7 (28 October 1982); *Montreal Protocol on Substances that Deplete the Ozone Layer*, opened for signature 16 September 1987, 1522 UNTS 3 (entered into force 1 January 1989); *Convention on the Protection and Use of Transboundary Watercourses and International Lakes*, opened for signature 17 March 1992, 31 ILM 1312 (entered into force 6 October 1996); *United Nations Framework Convention on Climate Change*, opened for signature 9 May 1992, 1772 UNTS 107 (entered into force 21 March 1994). Other instruments of a more hortatory rather than binding character include *Ministerial Declaration Calling for Reduction of Pollution*, 27 ILM 835 (25 November 1987); Governing Council, *Report of the Governing Council on the Work of its Fifteenth Session*, UN DOC A44/25 (27 September 1989) 153.

¹⁵⁷ *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [123] (Report of the Appellate Body).

¹⁵⁸ Following the arguments it raised in *EC — Hormones*, the EC argued in *EC — Biotech* that the precautionary principle had the status of customary international law, or at least that of a fully-fledged, ‘general principle of international law’ — although the EC did not explain exactly what was meant by ‘general principle of international law’: *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [7.78] (Report of the Panel).

¹⁵⁹ *Ibid* [7.89].

¹⁶⁰ *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [29] (Report of the Appellate Body).

¹⁶¹ *Ibid* [124].

and can assist in clarifying Members' rights and obligations. It is therefore argued that the precautionary principle is not exhausted in terms of using relevant international law sources to further clarify Members' rights and obligations under the *SPS Agreement*, including further applicability to art 5.7. This method of interpretation moves away from a strictly textual approach.

2 The Cartagena Protocol

While recalling the Appellate Body's finding in *EC — Hormones*, the Panel in *EC — Biotech* did not go on to consider whether sources of international law such as the *Cartagena Protocol* could inform the interpretation and application of a precautionary approach under art 5.7. The *Cartagena Protocol* is a supplementary agreement to the *Convention on Biological Diversity*. It deals with international trade in 'living modified organisms' — which includes all GMOs¹⁶² — and seeks to protect biological diversity from potential risks posed by biotechnology. Based on the precautionary principle, the *Cartagena Protocol* requires a transparent and scientifically sound risk assessment as the basis for decisions about transboundary shipments of GMOs into member states, and gives states parties the discretion to take precautionary actions. While the body text of the *Cartagena Protocol* appears to assert the primacy of domestic interests in biodiversity and food security over WTO obligations,¹⁶³ the preamble contains a rather ambiguous savings clause¹⁶⁴ which, although not specifically referencing the *SPS Agreement*, purports to preserve parties' rights and obligations under pre-existing WTO and other international obligations.¹⁶⁵ However, it does not explicitly contract out of the *lex posterior* and *lex specialis* rules.¹⁶⁶ The fact that the *Cartagena Protocol* has broad support among WTO Members (68 WTO Members have ratified the *Cartagena Protocol*, and a further

¹⁶² The living modified organisms that are regulated by the *Cartagena Protocol* are those to be released into the environment or used as food or animal feed or in food processing. The *Cartagena Protocol* does not regulate modified organisms created by conventional cross breeding techniques, non-living GMO-derived products or pharmaceuticals: Heather Heavin, 'The *Biosafety Protocol* and the *SPS Agreement*: Conflicts and Dispute Resolution' (2003) 12 *Journal of Environmental Law and Practice* 373, 378.

¹⁶³ Mills, above n 36, 329.

¹⁶⁴ This section of the preamble reads: 'Emphasizing that this Protocol shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreements': *Cartagena Protocol*, above n 120, preamble (emphasis in original).

¹⁶⁵ During the negotiation of the *Cartagena Protocol*, the US strongly pushed for the issue of trade in GMOs to come within the WTO compact. Though it participated extensively in the negotiations, the US is not a signatory to the *Cartagena Protocol*. Howse and Busch contend that the US 'has expressed in various ways its view that the principles in question are valid international law, perhaps even custom': Marc Busch and Robert Howse, 'A (Genetically Modified) Food Fight: Canada's WTO Challenge to Europe's Ban on GM Products' [2003] 186 *CD Howe Institute: Commentary* 1, 4, available at <http://www.cdhowe.org/pdf/commentary_186.pdf> at 1 October 2006.

¹⁶⁶ See *Vienna Convention*, above n 40, art 30(4)(b) (application of successive treaties relating to the same subject matter), which provides that:

when the parties to the later treaty do not include all the parties to the earlier one ... as between a State party to both treaties and a State party to only one of the treaties, the treaty to which both States are parties governs their mutual rights and obligations.

33 WTO Members have acceded to it),¹⁶⁷ indicates that its subject matter reflects ‘contemporary concerns of the community of nations about the protection and conservation of the environment’¹⁶⁸ and that it falls within Pauwelyn’s category of ‘common intentions’ of WTO Members.¹⁶⁹ It is therefore argued that the *Cartagena Protocol* is closely connected with the *SPS Agreement*, and should be considered a relevant source of international law applicable between the parties to guide a Panel in its interpretation of art 5.7 in a dispute concerning trade in GMOs and GMO-derived products.¹⁷⁰

E *A Precautionary Approach: A Greater Acknowledgement of Scientific Uncertainty*

While Pauwelyn’s reference to ‘common intentions’ appears to be confined to interpreting actual treaty terms, this article takes a wider view, proposing that these rules of international law can inform the teleology of the relevant treaty provision, as permitted by art 31(1) of the *Vienna Convention*. As this approach is teleological rather than strictly textual, it takes into account relevant sources of international environmental law in order to clarify parties’ rights and obligations under the *SPS Agreement*. This approach is not constrained by the fact that art 5.7 of the *SPS Agreement* does not use the term ‘precautionary principle’ or ‘precautionary approach’.

Applying the proposed approach, it is argued that there was potential for the Panel in *EC — Biotech* to take the precautionary principle into account, by reading in relevant sources of international environmental law.¹⁷¹ Relevant sources include: the *Cartagena Protocol*, as outlined above; the *Convention on Biological Diversity* and the *Rio Declaration*¹⁷² (the US is a signatory to both of

¹⁶⁷ See Secretariat of the Convention on Biological Diversity, *Cartagena Protocol on Biosafety (Montreal, 29 January 2000): Status of Ratification and Entry into Force* (2006) <<http://www.biodiv.org/biosafety/signinglist.aspx?sts=rtf&ord=dt>> at 1 October 2006. The *Protocol* has been ratified by the EC and has been signed by Argentina and Canada, but not by the US; however the US has signed the *Convention on Biological Diversity*. There is a reasonably significant body of literature on the interface between the *Protocol* and the *SPS Agreement* and the likely outcome of a dispute under that agreement in this area: see, eg, Brett Grosko, ‘Genetic Engineering and International Law: Conflict or Harmony? An Analysis of the *Biosafety Protocol*’ (2001) 20 *Virginia Environmental Law Journal* 295; Sabrina Safrin, ‘Treaties in Collision? The *Biosafety Protocol* and the World Trade Organization Agreements’ (2002) 96 *American Journal of International Law* 606. See generally Heavin, above n 162.

¹⁶⁸ *US — Shrimp*, WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) [129] (Report of the Appellate Body).

¹⁶⁹ Pauwelyn, ‘The Role of Public International Law in the WTO’, above n 41, 575–6. However, see Scott’s argument that the legitimacy of such multilateral agreements, ‘dissociated from political life’, cannot be assumed and accordingly the Appellate Body should be cognisant of the contestability of these instruments: Scott, above n 57, 311–12.

¹⁷⁰ *Cartagena Protocol*, above n 120, arts 9–11. Dispute settlement is provided for in the *Cartagena Protocol*, with a Compliance Committee established to deal with disputes, including issues of ‘undue delay’ for approval for the transboundary movement of GMOs. The *Cartagena Protocol* also contains a timeline for approval processes and describes the elements that can cause delays.

¹⁷¹ For a viewpoint opposing the invocation of the precautionary principle in the *SPS Agreement* context, see generally Button, above n 122, ch 5.

¹⁷² *Rio Declaration*, above n 143, principle 15, which provides:

these, which were taken into account in *US — Shrimp*); along with many other declarations and agreements. Principle 15 of the *Rio Declaration* allows for invocation of the precautionary principle where there exists a ‘lack of full scientific certainty’.¹⁷³ In addition, the *Convention on Biological Diversity* provides guidance to states parties on making decisions based upon the precautionary principle where there is a risk of significant reduction to or loss of biological diversity. It provides that a ‘lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimise such a threat’.¹⁷⁴ In the specific area of GMOs, arts 10.6 and 11.8 of the *Cartagena Protocol* explicitly provide that where scientific analysis does not allow the risk to human health or biodiversity to be determined with sufficient certainty, states parties have the right to make precautionary decisions about the importation of GMOs, in order to avoid or minimise potential adverse effects. Therefore, the *Cartagena Protocol* recognises that uncertainty or inconclusiveness of scientific analysis can impact on its sufficiency.

Allowing a Member to invoke a precaution-based measure under art 5.7 of the *SPS Agreement* would not override the substantive requirements of the *SPS Agreement*, or create a separately justiciable principle authorising trade-restrictive measures, but it would allow for a mutually supportive interpretation of trade and environmental agreements. Using this context-specific treaty rule as an interpretive aid would not require the disputants or the wider WTO membership to accept the treaty rule in question in respect of future commitments or disputes. It would require a Member to show that its impugned measure was promulgated in response to scientific evaluation that did not allow the level of risk to be determined with certainty, due to insufficient data or inconclusive or imprecise results.¹⁷⁵ It would still require that a provisional measure be based on reliable scientific data, including identification of the potential harm arising from the product or technology. Furthermore, such a process would require an evaluation of all available scientific information, including an assessment of the uncertainties in the scientific data, ensuring the desired level of protection was commensurate with the level of perceived risk.¹⁷⁶ In order to ‘avoid unwarranted recourse to the precautionary principle’,¹⁷⁷ such measures and the decision-making thereunder would need to be transparent and non-discriminatory to withstand external scrutiny and to ensure that regulations

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.

¹⁷³ Ibid.

¹⁷⁴ *Convention on Biological Diversity*, above n 119, preamble.

¹⁷⁵ Commission of the EC, *Communication from the Commission on the Precautionary Principle* (2000) 15 <http://ec.europa.eu/dgs/health_consumer/library/pub/pub07_en.pdf> at 1 October 2006. Wickinoff et al argue that sufficiency of scientific evidence makes little sense if legitimate community concerns about other risks are not addressed: Wickinoff et al, ‘Adjudicating the GM Food Wars: Science, Risk, and Democracy in World Trade Law’ (2005) 81 *Yale Journal of International Law* 81, 113.

¹⁷⁶ Kenneth Foster, Paolo Vecchia and Michael Repacholi, ‘Science and the Precautionary Principle’ (2000) 288 *Science* 979, 981.

¹⁷⁷ Commission of the EC, above n 175, 9.

were not being promulgated for protectionist purposes or on an arbitrary basis.¹⁷⁸ Moreover, the measures would be provisional pending the availability of more reliable scientific data, as required by art 5.7. Scientific research should be continued with a view to obtaining more complete data and thereby facilitating a risk assessment in compliance with art 5.1, but the fact that such a risk assessment could not be completed within a certain period of time — even several years, where uncertainty is enduring — would not mean that the Member's actions had not been reasonable.¹⁷⁹ Where a Member's provisional measure was challenged, the Member could be required to periodically submit its measure to the DSB for assessment to limit opportunistic abuse.¹⁸⁰

Unlike the Panel's narrow reading of art 5.7, this approach would give effect to the principle of effectiveness — that is, if a treaty provision is open to two different interpretations, one rendering the provision nugatory, the effective interpretation should be adopted.¹⁸¹ The approach also gives effect to the principle of *in dubio mitius*, whereby an ambiguous treaty term should be interpreted in such a way as to interfere less with a state's autonomy, or to be less onerous to the party who assumes an obligation — a principle adopted by the Appellate Body in *EC — Hormones*.¹⁸² It would require Panels and the Appellate Body to show greater deference to the regulatory authority of members where there is a legitimate nexus between the *SPS Agreement* measure and the Member's avowed policy objective, as long as the purpose is non-discriminatory¹⁸³ — particularly in cases where there is low certainty and low consensus with respect to the level of risk posed by a particular product or technology.¹⁸⁴ Broadly speaking, therefore, the precautionary principle in this context would enable Members to act with greater flexibility than would be possible under the interpretation given by the Panel in *EC — Biotech*.

In summary, it is argued that the Panel missed an opportunity to examine the extent to which the precautionary principle (even if characterised as an 'approach') was reflected in art 5.7. Legal rules such as the precautionary principle, as contained in relevant MEAs, can inform both an understanding of the terms of the *SPS Agreement* and Members' rights and obligations thereunder. It is not necessary for the *SPS Agreement* to explicitly refer to the precautionary principle, nor for the precautionary principle to be a rule of customary international law (or a general principle of international law) in order for it to be taken into account in interpreting the *SPS Agreement* pursuant to art 31(3)(c) of the *Vienna Convention*.¹⁸⁵ The GMO-specific precautionary approach outlined in

¹⁷⁸ *Ibid.*

¹⁷⁹ *Ibid.* 20–1.

¹⁸⁰ Wickinoff et al, above n 175, 116.

¹⁸¹ This principle is described by Cameron and Gray as 'a fundamental tenet of treaty interpretation, flowing from the contextual analysis required under Article 31 of the *Vienna Convention*': James Cameron and Kevin Gray, 'Principles of International Law in the WTO Dispute Settlement Body' (2001) 50 *International and Comparative Law Quarterly* 248, 256.

¹⁸² *EC — Hormones*, WTO Docs WT/DS26/AB/R, WT/DS48/AB/R, AB-1997-4 (16 January 1998) [165] (Report of the Appellate Body).

¹⁸³ See Douglas Kysar, 'Preferences for Processes: The Process/Product Distinction and the Regulation of Consumer Choice' (2004) 118 *Harvard Law Review* 525, 593.

¹⁸⁴ Wickinoff et al, above n 175, 117.

¹⁸⁵ Pauwelyn, 'The Role of Public International Law in the WTO', above n 41, 570.

the *Cartagena Protocol* therefore provides for a wider interpretation of the term ‘insufficient’, which allows for the degree of scientific uncertainty to be taken into account when addressing the question of sufficiency. In turn, this provides for greater flexibility in regulatory policy, allowing members to promulgate non-discriminatory regulations whilst adhering to general *SPS Agreement* strictures.

V CONCLUSION: IMPLICATIONS OF THE DECISION

In light of the public outcry following the highly politicised *US — Shrimp* decision, it is likely that, regardless of the outcome, the reasoning of the Panel in *EC — Biotech* would have been viewed as controversial. This is particularly so given the highly contestable nature of the issues raised by the dispute, including the status of the precautionary principle as a rule of international law. The *EC — Biotech* dispute has raised questions about the legitimacy of using an international dispute settlement mechanism for reviewing a raft of domestic regulations that have an incidental effect on international trade, even if the impugned regulations do not appear to have protectionist intent. While the way in which judicial power is exercised by the Appellate Body may be seen to legitimise the WTO as an institution, Howse suggests that judicial legitimacy itself cannot rule out the possibility of a broader crisis of democratic legitimacy.¹⁸⁶ This is particularly pertinent in the context of the dual levels of regulation-making power in the EU, and given the highly contestable nature of the issues raised by the dispute, including the status of the precautionary principle as a rule of international law. The *EC — Biotech* decision is likely to add to claims of a broader and perhaps intractable conflict between trade and non-trade values by illustrating the limits of the WTO dispute settlement system in dealing with the competing values underpinning liberalised trade and environmental and health regulation.

It is doubtful whether litigation was the best mechanism for addressing this issue, in comparison with other alternatives such as: special arbitration under art 25 of the *DSU*;¹⁸⁷ obtaining agreement through deliberation of scientific and regulatory experts; or utilising the Ministerial process. Indeed, the *DSU* implores Members to exercise judgement as to whether action under the dispute settlement system would be fruitful, given that the aim of the dispute settlement mechanism is to ‘secure a positive solution to a dispute’.¹⁸⁸ Using an adversarial dispute settlement process to address highly contested issues about the nature and function of the trading system and to resolve value conflicts is likely to have the effect of politicising the WTO’s judicial organ, which has been at pains to portray itself as an objective arbiter of technical disputes. The extent of any political fallout that occurs as the result of the Panel’s decision remains to be seen, as the decision arguably calls into question the value of not only the *Cartagena Protocol* but of other MEAs that contain trade measures.¹⁸⁹ The decision may also have the effect of further escalating tensions in the sensitive area of agriculture.

¹⁸⁶ Howse, ‘The Legitimacy of the World Trade Organization’, above n 12, 395.

¹⁸⁷ Pauwelyn, ‘The Use of Experts in WTO Dispute Settlement’, above n 60, 344.

¹⁸⁸ *DSU*, above n 13, art 3.7.

¹⁸⁹ See Grosko, above n 167, 326.

Criticisms levelled at the Panel's decision in *EC — Hormones* were largely mitigated by the subsequent Appellate Body decision. Should the EC appeal the decision in *EC — Biotech*, it seems unlikely that the result would be substantively reversed. There is potential for the Appellate Body to discipline some of the Panel's reasoning because, if left untouched, the decision will have adverse consequences for Members who wish to invoke provisional measures on the basis of new information, notwithstanding a prior approval of the product at issue.¹⁹⁰ To the extent that the Appellate Body can review Panel decisions on matters of law, it seems most likely that any review in the area discussed in this article would be centred on the Panel's reasoning regarding the interface between arts 5.7 and 5.1. However, it is unclear whether the EC would wish to appeal, given that the Panel made no recommendations in respect of the moratorium, which ended in 2003, and that the Panel simply recommended that EC Member States bring their measures into conformity with EC policy.¹⁹¹

While the question of the extent to which Panels and the Appellate Body should consider external sources of international treaty law is both complex and controversial, it is argued that the Panel was unduly dismissive of relevant sources of international environmental law that had direct relevance to the dispute at hand. This is particularly so given the Appellate Body's prior willingness to examine non-binding sources of international environmental law as a means of determining appropriate state practice in the area at issue. This failure to take into account the external pressures of international environmental law, even to a modest degree, is likely to send negative signals to external stakeholders because it does not reflect a responsiveness to 'contemporary concerns of the community of nations about the protection and conservation of the environment',¹⁹² particularly given the rapid evolution of biotechnology and the attendant public concern since the WTO agreements came into force.¹⁹³ While not a panacea for the problematic relationship between international trade law and international environmental law, using relevant principles of international environmental law to clarify rights and obligations under the *SPS Agreement* would have assisted the *EC — Biotech* Panel in striking an appropriate balance between internal and external legitimacy.

¹⁹⁰ Weiler criticises the Appellate Body's sometimes 'gratuitously scathing' criticism of the Panel's legal reasoning, arguing that a more nuanced approach is required, such as that developed in the EU: Weiler, 'The Rule of Lawyers and the Ethos of Diplomats', above n 9, 196. However, it is arguable that the EU approach cannot be directly translated to the Appellate Body's role in disciplining the decisions of ad hoc Panels. See also Dunoff, above n 10, 198, who argues that the ad hoc nature of assembling Panels has a negative impact on the legitimacy of the DSB.

¹⁹¹ *EC — Biotech*, WTO Docs WT/DS291, WT/DS292, WT/DS293 (29 September 2006) [8.16], [8.20], [8.32], [8.36], [8.40], [8.48], [8.55], [8.64] (Report of the Panel).

¹⁹² *US — Shrimp*, WTO Doc WT/DS58/AB/R, AB-1998-4 (12 October 1998) [129] (Report of the Appellate Body).

¹⁹³ The first genetically modified food (the 'Flavr Savr' tomato) was approved by the US Food and Drug Administration in 1994: see US Food and Drug Administration Center for Food Safety and Applied Nutrition, *FDA Backgrounder: Biotechnology of Food* (1994) [1] <<http://www.cfsan.fda.gov/~lrd/biotechn.html>> at 1 October 2006.