



SEPTEMBER 2003

## The next trade war? GM products, the Cartagena Protocol and the WTO

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On 20 May 2003 the United States initiated a dispute under the World Trade Organization (WTO) about the European Union's *de facto* moratorium on the approval of new uses of genetically modified (GM) products. Following the failure of the consultation stage of the WTO's dispute settlement procedure, a dispute panel was established at the end of August, signalling the long-expected opening shots in what may turn out to be a serious and long-running trade conflict between the US and the EU.

The dispute settlement process, if pursued through all its stages, including the final Appellate Body ruling, normally takes between twelve and eighteen months to complete. Whatever its outcome, it is quite likely that further disputes may be initiated, given the rapid evolution of national regulatory regimes for GM products, and also the entry into force of the Cartagena Protocol, the multilateral environmental agreement regulating trade in GM products, on 11 September.

As commercial GM products have only been deployed since the mid-1990s, there is still considerable debate and uncertainty over their impacts on health, the environment, industrial structures and market power. Given the deep-seated cultural differences towards science, technology and government regulation between US and EU consumers, trade disputes centring on GM products will be particularly difficult to resolve. This briefing paper aims to provide the background to the likelihood of many years of ongoing argument and dispute.

## Regulating GM products

Crop varieties derived from biotechnology were first introduced for commercial use in the United States in 1996, though the scientific and popular debate about their impacts originated in the 1970s, when the technologies first began to be developed. Issues surrounding genetically modified organisms (GMOs) include the impacts of commercial growing, marketing and trade of GM seeds, food, animal feed and the patenting of food genes. At the heart of the debate is whether the technology will have negative consequences for human and animal health and the environment, as well as socio-economic implications. In 1998 the Scientists' Working Group on Biosafety identified four associated human or environmental risks of GMO release:<sup>1</sup>

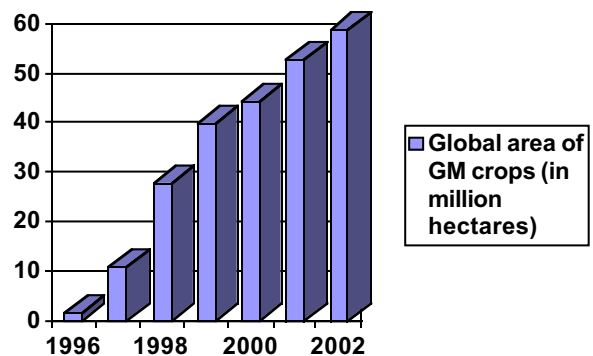
- changes in ecological roles or functions;
- changes in genetic relationships;
- indirect effects upon community and ecosystem functions; and
- changes in allergenicity, toxicity, or the nutritional composition of foods.

The lack of scientific certainty over whether and how these risks will transpire has prompted major disagreement over the appropriate course of action, with North American and European populations displaying widely diverging responses. The gulf separating the opinions of the US and the EU has largely been brought about by circumstances surrounding food production. The US, as perhaps the most advanced innovator in food technology, has not shied away from implementing GM technology, and is now the world's leading producer and exporter of GM products, accounting for 66 per cent of total world-wide planted hectares in 2002. Canada (6 per cent) and Argentina (23 per cent) have also proved relatively enthusiastic adopters of the technology, along with China (4 per cent). These four countries together accounted for 99 per cent of world-wide GMO production in 2002.<sup>2</sup> Total GM crop production has grown explosively over the past six years, with a 35-fold increase from 1.7 million hectares in 1996 to 58.7 million hectares in 2002 (see Figure 1).

## The European approach

European consumers have demonstrated a much higher level of suspicion of GM products – 'Frankenstein foods' as the British tabloid press dubbed them – and the history of food scares within the EU, including over BSE and foot-and-mouth disease, has led to a widespread public demand for government regulatory action.

FIGURE 1: GROWTH IN COMMERCIAL PRODUCTION OF GM CROPS



Source: ISAAA: [www.isaaa.org](http://www.isaaa.org)

EU legislation relating to GMOs has been in place since 1990, when Directive 90/22/EEC, on the deliberate release of GMOs into the environment, was agreed; it allowed a member state to refuse the release of GMOs in its territory, even if overall consent had been given under the Directive, provided the country had 'justifiable reasons' to believe that an approved product constituted a risk to human health or the environment. In 1997, Regulation (EC)258/97, on novel foods and novel food ingredients, established a similar process for authorizing novel foods, including food products containing, consisting of or produced from GMOs.

A revised version of the 1990 Directive, 2001/18/EC, entered into force in October 2002; this required a more stringent risk assessment process for the release of GMOs into the environment, and general rules on mandatory labelling and traceability at every stage of the process of placing GM products on the market, including mandatory monitoring requirements for long-term effects. As with the 1990 Directive, applications for the release of GMOs into the environment were assessed by the member state where the product was first placed on the market. If approved and if no objections were raised by other member states, the product could be marketed throughout the EU; if objections were raised, the decision was taken at the EU level. The revised Directive also made it possible for the Council of Ministers to adopt or reject a Commission proposal for GMO authorization by qualified majority. In contrast to the 1990 Directive, approval was granted for only ten years, after which period authorizations were renewable.

In July 2003, two new regulations,<sup>3</sup> on GM food and feed, and on traceability and labelling of GMOs and products produced from GMOs, were adopted.<sup>4</sup> The new arrangements include a simplified authorization process for GMOs for release into the environment,

and GM food or feed, with a 'one-door-one-key' procedure, requiring only a single risk assessment and a single application to obtain approval for the deliberate release of GMOs into the environment and for use in food or feed. Scientific risk assessments will be conducted by the newly established European Food Authority, and the European Commission will then draft a proposal for granting or refusing authorization, which will be submitted for approval by a regulatory committee of member states.

The new regulations extend the current labelling requirements to all GM food or feed, including foods produced from GMOs, irrespective of whether there is actually DNA or protein of GM origin in the final product. All products consisting of or containing GMOs must be labelled as 'containing GMOs' or 'produced from GMOs'. Exceptions are allowed for conventional food or feed contaminated by minute traces of GMOs (below 0.9 per cent), which may occur during cultivation, harvest, transport or processing. The traceability requirements provide the means to track the movement of GM products through the production and distribution chains, and will facilitate monitoring of any effects on the environment, accurate labelling and the withdrawal of products if unexpected adverse effects arise. The new regulations will enter into force twenty days after their publication (expected in September or October 2003), with a six-month compliance period. The EU legislative framework (the two regulations plus the 2001 Directive) have established what Health and Consumer Protection Commissioner David Byrne described as the 'most rigorous pre-marketing assessment in the world'<sup>5</sup> for GM products.

After the 1990 Directive entered into force, a total of eighteen GMOs were authorized for commercial release into the environment in the EU, and fifteen GM food products were approved for marketing. As concern grew over the possible impacts of GM products, and consumer resistance mounted, however, in June 1999 five member states (Denmark, Greece, France, Italy and Luxembourg) called for the suspension of all new authorizations pending the adoption of rules to ensure labelling and traceability, while a further seven states (Austria, Belgium, Finland, Germany, the Netherlands, Spain and Sweden) declared their intention to take a precautionary approach, and not to authorize any GMOs until it could be demonstrated that there was no adverse effect on the environment or human health. As a result, no new GMOs have been approved in the EU since October 1998, while thirteen applications for release and ten applications for food products were frozen.

This *de facto* moratorium clearly constrained imports of GM products into the EU. As the largest exporter, the US was particularly affected, losing an estimated

\$300 million worth of agricultural sales to Europe annually. It was this situation that led to the US decision, in May 2003, to challenge the moratorium through the WTO dispute settlement process. Even though the adoption of the new regulations will allow the moratorium to be lifted, the US shows no sign of backing down.

Before turning to the possible outcomes of the US challenge, however, we look at the other major international policy development of 2003: the entry into force of the Cartagena Protocol.

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### The Cartagena Protocol on Biosafety<sup>6</sup>

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The Cartagena Protocol on biosafety is the first international treaty dealing with the transboundary movement of genetically modified organisms. Signed in January 2000, after nearly four years of increasingly arduous negotiations, the Protocol entered into force on 11 September 2003. By chance, the treaty became legally binding just at the time when WTO member states were meeting in Cancun, Mexico, at the supposed mid-point of the Doha Development Round of trade negotiations.<sup>7</sup> The coincidence of the two events only serves to draw attention to the close connections between international biosafety regulation and the global trading system.

As a legal instrument dealing with environmental and health aspects of trade in GMOs and GM food, the Cartagena Protocol has a direct bearing on WTO members' rights and obligations. Some see the two legal texts as potentially clashing. The US challenge to the EU moratorium does not *directly* involve the Protocol, as the EU legislation predates its entry into force (and not all EU member states have yet ratified it, though the European Community itself has); but its passing into international law has set the scene for potential future disputes over the relationship between international biosafety rules and the WTO. (In fact, the Protocol has been cited by the EU in its defence, and may yet prove relevant to the dispute – see further below.)

The main objective of the Cartagena Protocol is to contribute to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms (LMOs). (The Protocol speaks of LMOs instead of the more commonly used terms 'genetically modified organisms' or 'transgenic organisms', which are often used interchangeably.) The Protocol applies only to those LMOs that have resulted from modern biotechnology, which allows the targeted change of an organism's genetic make-up by so-called recombinant nucleic acid techniques or by direct

injection of nucleic acids, thus going beyond traditional methods of selective breeding.

Although the Protocol covers the human health- and biodiversity-related safety aspects of the transfer, handling and use of LMOs, the emphasis is clearly on ensuring safety in the transboundary movement of LMOs. In a sense, the Protocol is a mixed environmental *and* trade agreement that explicitly regulates the international trade in genetically modified material and products. The domestic use of LMOs remains largely in the hands of domestic regulatory authorities, although the Protocol provides guidance and assistance in this area, particularly for developing countries.

The Protocol's key regulatory mechanism is the so-called advance informed agreement (AIA) procedure, which requires GMO exporters to provide detailed information on the organism in question and to seek the importing nation's prior approval for certain GMOs before any transboundary movement takes place. Importing nations are to carry out risk assessments before reaching a decision, and in doing so can invoke the precautionary approach. The inclusion of precautionary language in the operational text of the agreement marks a significant advance in international environmental law towards a more formal recognition of the precautionary principle. It also serves to strengthen the prerogative of importing nations to decide on whether or not to allow GMO imports into their territory.

The biosafety treaty differs from other multilateral environmental agreements in two important ways. First, the Protocol does not seek to reduce, or eliminate, the use of the regulated substances, as is the case in the Montreal Protocol on ozone-depleting substances or the Basel Convention on hazardous waste. In fact, the creators of the Cartagena Protocol were keen to avoid a close analogy with the Basel Convention, which regulates transboundary movements of toxic waste, and adopted the Convention's prior informed consent (PIC) principle under the new name of 'advance informed agreement'. While acknowledging concerns over its potential effects on biodiversity and human health, the Cartagena Protocol states that modern biotechnology 'has great potential for human well-being if developed and used with adequate safety measures for the environment and human health'.<sup>8</sup> Thus, the treaty is better understood as a precautionary instrument for international risk management that aims at establishing principles and rules for decision-making on trade in GMOs.

Second, rather than aiming, like the Montreal Protocol and the Kyoto Protocol on climate change, at an internationally binding assessment of the risks of the regulated substances, the biosafety treaty enables

a decentralized form of decision-making that strengthens the prerogative of importing nations. While the information provided by GMO exporters is made available to all parties through the central mechanism of the biosafety clearing-house, risk assessment and decision-making on imports remain in the hands of each individual party. The Protocol merely lists principles and methodologies for risk assessment that all parties have to apply in reaching a decision.

It is expected that the Cartagena Protocol will prove particularly useful for developing countries, many of which have so far failed to establish a satisfactory domestic system of biosafety regulations. The Protocol provides these nations with a set of guidelines for carrying out risk assessment, strengthens their sovereign right to subject international trade in GMOs to such risk assessment and supports the creation of regulatory institutions through capacity-building and information exchange.

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### The biosafety negotiations

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The Cartagena Protocol has its origins in demands made by developing countries during the late 1980s for an international regulatory framework for modern biotechnology. The issue of safety in biotechnology, or 'biosafety', emerged on the international agenda in the run-up to the 1992 United Nations Conference on Environment and Development (UNCED) – the Rio 'Earth Summit' – and during the concurrent negotiations on the Convention on Biological Diversity (CBD). Although the UNCED participants could not agree on specific biosafety regulations, they nevertheless included in Agenda 21 (the programme for action aimed at achieving sustainable development in the 21st century agreed at Rio), and the CBD, a mandate to consider the need for a separate international biosafety treaty.

The failure to establish a biosafety framework at Rio revealed a significant difference in perspective between developed and developing countries. Whereas the former wanted UNCED to concentrate on biodiversity conservation and remained unconvinced of the need for a biosafety treaty, the latter urged the international community to address the development needs of poorer nations and pushed for a binding international biosafety instrument. Many developing-country representatives saw biotechnology as an untested 'Northern technology' that could damage the South's rich biological diversity and socio-economic interests. It took three more years before a mandate for biosafety talks was eventually agreed in 1995. The G77 group of developing countries, which managed to unite behind a common negotiating position on this issue, succeeded in pushing for a biosafety protocol to

the CBD, which was eventually agreed in January 2000 after almost four years of increasingly contentious negotiations.

The choice of the negotiating forum was to have a significant impact on the international process. Framing biosafety as a predominantly environmental issue left the negotiations in the hands of environment and health ministers, at least in the early phase. From the start of the talks in 1996 until about 1998, trade concerns were relatively marginal, not least since GM crops only began to enter agricultural trade in the second half of the 1990s. By the time agricultural exporters and trade ministers had started to realize the trade implications of a future biosafety protocol, the scene was already set for an international treaty that was concerned, first and foremost, with the conservation and sustainable use of biological diversity, and that was designed as an essentially precautionary instrument.

The negotiations on the Cartagena Protocol lasted from 1996 to 2000. What started as a relatively unnoticed set of meetings of scientific and regulatory experts soon developed into a highly politicized and public negotiation. By the time of the 1999 conference in Cartagena, Colombia, which was meant to adopt the Protocol, the growing rift between GMO-exporting nations (known as the 'Miami Group'), on the one hand, and the European Union and a large coalition of developing countries (the 'Like-Minded Group') on the other, came to dominate the biosafety talks. US-led opposition to the draft agreement eventually led to the collapse of the Cartagena meeting in February 1999, but the negotiations resumed shortly thereafter and were concluded successfully in January 2000, with both sides making concessions but leaving some areas of contention unresolved.

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## Key provisions of the Cartagena Protocol

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- *Advance informed agreement.* The central regulatory element of the biosafety treaty is the AIA procedure, which applies to the first intentional transboundary movement of LMOs for intentional introduction into the environment (Articles 7–10 and 12). The procedure seeks to ensure that importing countries have the opportunity to assess the environmental or human health risks associated with the LMO before agreeing to its import. It obliges exporters to notify importers in advance of the first shipment and to supply a detailed description of the LMO shipment. After acknowledging receipt of the information within 90 days, the importing party must communicate its decision, which is to be based on risk assessment, within 270 days: it may either

approve or prohibit the import, request further information or extend the deadline by a defined period of time, stating the reasons for the decision. Both the importing and exporting parties may, at any time, initiate a review and change of the decision in the light of new scientific information.

- *Scope.* Although applying to all LMOs in principle, the Cartagena Protocol exempts certain types of LMOs either from the entire agreement or from specific provisions. Article 5 excludes the transboundary movements of LMOs which are pharmaceuticals for humans from all provisions of the agreement. Among the LMOs exempted from the AIA procedure are LMOs in transit and LMOs destined for contained use (Article 6); and LMOs intended for direct use as food or feed or for processing (Article 7.3). The latter represent the vast majority of internationally traded LMOs – so-called agricultural commodities – and were the subject of protracted negotiations in the final stage of the biosafety talks. The Protocol does not, however, affect the right of any party to regulate any of these exempted LMOs through domestic legislation. Likewise, parties can inform the biosafety clearing-house that they wish to exempt certain imports of LMOs from the AIA procedure (Article 13), and the Conference of the Parties to the CBD serving as the Meeting of the Parties to the Protocol (COP-MOP, the decision-making body) may in future decide to exempt additional LMOs from application of the AIA procedure.

- *Agricultural commodities.* The so-called LMOs for direct use as food or feed, or for processing (LMOs-FFP) were the subject of intense negotiations. Against the background of a rapidly growing commercial use of genetically modified crops (see Figure 1), LMO-exporting nations wanted to ensure that trade in agricultural commodities was not subject to the demanding AIA procedure. The parties agreed on a compromise solution entailing a simplified procedure which obliges a party to inform other parties through the biosafety clearing-house of its decision to authorize domestic use of LMOs that may be subject to transboundary movement. On the basis of this information, importing parties take a decision on whether or not to accept the import of such commodities.

The main difference between this and the AIA procedure is that, in the case of agricultural commodities, exporters do not need to notify and inform importing parties directly and the prior approval requirement does not automatically apply. However, importing parties may subject agricultural commodity imports to a domestic procedure similar

to AIA, including prior notification and approval. Moreover, Article 11.8 allows importing nations to apply the precautionary approach in reaching a decision on LMOs-FFP. It is worth mentioning that, because of the specific focus of the Protocol on *living* modified organisms, this procedure does not apply to all categories of what is generally referred to as GM foods. It does not cover trade in food products that are derived from GM products but do not contain an LMO (e.g. processed food made with a refined processed oil derived from GM soya).

- *Risk assessment and precaution.* The Protocol requires importing countries to base their decision on risk assessment, which is to be carried out 'in a scientifically sound manner' (Article 15). Specific guidelines for risk assessment are detailed in Article 15 and Annex III of the agreement. Developing countries demanded that they may also take into account socio-economic considerations, which Article 26 permits, provided that this is consistent with other international obligations. A hotly contested question in the negotiations was the extent to which a precautionary approach can be applied in decision-making. The compromise reached allows importing nations to take a decision – for example to ban LMO imports – where there is a lack of relevant scientific information and knowledge.

- *Biosafety clearing-house and capacity-building.* The biosafety clearing-house is the central mechanism for the exchange of scientific, technical, environmental and legal information on LMOs covered by the Protocol and was established as part of the CBD's clearing-house mechanism. It is designed to assist parties in implementing the Protocol and will provide them with speedy access to all the relevant information they need in order to carry out risk assessment. The clearing-house will play a critical role in providing access to information on agricultural commodities placed on the market and legislation by importing nations regarding their import. The pilot phase of the biosafety clearing-house is accessible through a central portal ([bch.biodiv.org](http://bch.biodiv.org)).

### The Cartagena Protocol and international trade rules

Ever since the Cartagena Protocol was adopted in January 2000, a debate has ensued about the compatibility of the Protocol's provisions with the WTO's legal order. Critics of the biosafety regime have argued that it may give rise to unnecessary, and even illegal, trade barriers that clash with the norms and

rules of the multilateral trading system. They insist that the biosafety rules have to be interpreted and implemented in a WTO-consistent manner, and that ultimately measures taken under the biosafety regime would be subordinate to the WTO's rules and dispute settlement mechanism. Proponents of the Protocol emphasize that the WTO leaves ample scope for trade-restrictive biosafety measures, just as is the case with other multilateral environmental agreements. Moreover, they argue that the Cartagena Protocol represents an international standard of the kind that the WTO routinely recognizes in its dispute settlement procedure.

One of the thorniest issues in the biosafety negotiations was the relationship between the Protocol and the WTO's trade rules. The US-led group of GMO-exporting nations had insisted during the talks that the Protocol should not weaken existing obligations under the WTO. In contrast, the EU and the Like-Minded Group of developing countries sought to insert language that shielded the Protocol's trade provisions from future legal challenges under WTO jurisdiction. This so-called 'relationship' question could not be resolved in the end, and an ambiguous preambular text was agreed at the last minute that left the issue open to interpretation:

*'Recognizing that trade and environment agreements should be mutually supportive with a view to achieving sustainable development,*

*Emphasising that this Protocol shall not be interpreted as implying a change in the rights and obligations of a Party under any existing international agreements,*

*Understanding that the above recital is not intended to subordinate the Protocol to other international agreements, ...' (Preamble)*

It does not take much legal expertise to recognize that this formulation is less than clear-cut in establishing the relationship between the Protocol and the WTO.

Several other provisions of the Protocol also give rise to questions and concerns over the compatibility of biosafety and trade rules. The Protocol can lead to trade-restrictive measures in a number of forms:

- In the most extreme version, decision-making by importing nations can lead to an outright *import ban* on certain LMOs, which could fall foul of several WTO disciplines.
- Even if an LMO import is allowed, the importing nation may place *special conditions* (restrictions on use; mandatory labelling) on the LMO that affect its competitiveness in the market, again raising questions about WTO-consistency.
- Exporters are obliged by the Protocol to comply with

certain *notification and identification requirements*. In the case of agricultural commodities, Article 18 requires exporters to identify through accompanying documentation any LMO-FFP that 'may contain' LMOs, a provision that was inserted into the treaty text at the last minute but remains highly controversial.

- The application of biosafety rules can also lead to *delays* in the processing of requests to authorize imports. This is the case with risk assessment that forms the basis for any decision by importing nations.

Any of the above trade-related measures could potentially lead to a conflict with WTO rules, most importantly the General Agreement on Tariffs and Trade (GATT) and the Agreements on Sanitary and Phytosanitary Standards (SPS Agreement) and Technical Barriers to Trade (TBT Agreement). While the Cartagena Protocol repeatedly states that its provisions are to be applied in consistence with other international obligations, differences in the rules and procedures laid down by the Protocol and the WTO agreements may cause some parties to contest such measures.

For example, a dispute may emerge over the use of precaution in decision-making. The inclusion of the precautionary approach in the Cartagena Protocol raises fundamental questions about its compatibility with the WTO's requirement that any risk assessment must be science-based. The rules of the SPS Agreement, which are concerned with trade barriers erected for health and food safety reasons, allow for protective measures if they meet a number of conditions. These include the need to base any decision on scientific principles and sufficient scientific evidence; to carry out risk assessment that must find evidence of an ascertainable risk; and to base measures on international standards. The SPS Agreement does contain a reference to precaution in Article 5(7): where scientific evidence is insufficient, governments may adopt protective measures based on pertinent information. Such measures are, however, restricted to a provisional use. The Cartagena Protocol's use of the precautionary approach differs from that of the SPS Agreement, in that there is no limitation on the duration of its use and no explicit requirement to review the scientific basis for the decision. Also, neither the CBD nor the Protocol is recognized by the WTO as an international standard-setting body.

Another contentious issue is the use of identification requirements in LMO trade. As stated above, the Protocol prescribes identification of agricultural commodity shipments that 'may contain' LMOs. As a mandatory identification scheme, this requirement may be classified as a technical barrier under the TBT Agreement or as a health and safety-related measure under the SPS Agreement, depending on the

justification given for the measure. The parties to the Cartagena Protocol are called upon to negotiate more specific rules on identification within two years after the Protocol has entered into force. Depending on the design and legal context, the identification scheme may be challenged for its discriminatory nature, should GM products and non-GM products be considered as 'like products' between which discrimination is not allowed under the GATT (unless it can be 'saved' by one of the exceptions in Article XX). A WTO dispute panel would normally carry out a case-by-case determination of the products' properties, their end-use qualities and consumer tastes and preferences. It is important to note that the Cartagena Protocol does not prescribe any labelling scheme that is designed to inform the consumer about GMO content. Such schemes are already in place in several countries, including in Europe (see above). They are covered by national legislation or are based on voluntary initiatives, and are not required or authorized by the Protocol.

A further complication arises from the fact that not all parties to the Protocol may be WTO members, and vice versa. WTO members that are not parties to the Protocol, such as the United States, may wish to ensure that only WTO rules apply to their trade in genetically modified organisms, and may at a future point challenge biosafety rules and measures. The US challenge against the European Union's GM regulations, although not directly aimed at the Cartagena Protocol, is indicative of the potential for future conflicts once parties have started taking decisions required or authorized by the Protocol.

The relationship between WTO trade rules and trade measures in multilateral environmental agreements was included in the agenda for the Doha Round of trade negotiations agreed in 2001, almost entirely at the insistence of the EU. The precise wording of the item constrains the debate quite sharply, however, and in any case no progress on the issue was made in the special sessions of the WTO's Committee on Trade and Environment in the following two years. Along with the other trade and environment components of the Doha agenda, the topic received almost no attention at the Cancun ministerial, and the draft ministerial declaration (which was not in the end adopted) contained a statement simply to 'reaffirm our commitment to these negotiations'.<sup>9</sup> It seems quite unlikely that any significant progress will be made throughout the rest of the Round, and it is probable that the next step in the development of the relationship between WTO trade rules and trade measures in multilateral environmental agreements will come in the form of an Appellate Body ruling in a future WTO dispute. The trade measures of the Cartagena Protocol are the leading candidate for such a dispute.<sup>10</sup>

As mentioned above, the Protocol itself achieved its fiftieth ratification in June 2003, and entered into force three months later, in September. Its COP-MOP will meet for the first time in the first quarter of 2004, taking over from the Intergovernmental Committee for the Cartagena Protocol (ICCP), the interim body whose task it was to prepare for the Protocol's entry into force.

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### The US–EU WTO dispute

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On 13 May 2003, the US and Canada, joined on 14 May by Argentina, requested WTO consultations on the EU's authorization system for GMOs and GM foods, and in particular its *de facto* moratorium, in place since 1998, on the authorization of new products. EU member states' marketing and import bans were also included in the request for consultations, the first stage in the WTO's dispute procedure. In the following month, the three original countries were joined as third parties by Peru, Colombia, Mexico, New Zealand, Australia, India, Brazil and Chile (even though, slightly bizarrely, a number of these countries themselves maintain moratoriums on the approval of GM products<sup>11</sup>).

Several other countries found themselves under US pressure to join in. In June, for example, Senator Chuck Grassley, Chairman of the Senate Finance Committee, responded to Egypt's decision not to join the US challenge to the EU by observing that while he was supportive of a possible US–Egypt Free Trade Agreement, 'one of the criteria that ought to be used to determine with whom the United States negotiates future FTAs is whether a country shares the same vision of the global trading system as does the United States. I certainly would like to be able to include Egypt in that camp.'<sup>12</sup> Following Egypt's continued refusal to support the challenge, the US suspended plans to launch formal free-trade talks with the country.<sup>13</sup>

The European Commission described the US challenge as 'legally unwarranted, economically unfounded and politically unhelpful', and Trade Commissioner Pascal Lamy added that 'the EU's regulatory system for genetically modified crop authorization is in line with WTO rules: it is clear, transparent and non-discriminatory. There is therefore no issue that the WTO needs to examine.'<sup>14</sup>

Consultations were held in June, but failed to resolve the issue, US Ambassador Linnet Deily declaring that the EU had not offered 'any scientific justification for its measure'.<sup>15</sup> At the 18 August meeting of the WTO Dispute Settlement Body, the US accordingly requested the establishment of a panel to rule on its complaint; panel requests were also submitted by Canada and Argentina. The EU having blocked the first request, the US resubmitted it to the 29 August

meeting, at which, as a second request, it was automatically approved under WTO procedures. The panel procedure, which includes written and oral submissions, normally takes about twelve months. Whatever the result, the losing party will almost inevitably appeal to the final stage in the dispute process, a consideration and ruling by the Appellate Body, which will add another six months or so. The dispute seems unlikely to be concluded, therefore, until well into 2005.

The almost certain lifting of the EU's *de facto* moratorium following the adoption of the new legislation in July 2003 (see above) means that there is a possibility that the complaint will be withdrawn, as even if the finding went against the EU, the remedy (an ending of the moratorium) would already have been implemented. Whether this in fact happens will depend on the actions taken by the EU and its member states over the next few months. Even if this dispute is ended, however, it is quite likely that the US and allies will launch a complaint about the new European regime, particularly its labelling and traceability rules. It is therefore worth considering the key arguments that the WTO dispute settlement process would have to address.

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### Key issues in the WTO dispute

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In launching its request for consultations, the US argued that the EU's actions constituted violations of the GATT itself and the SPS, TBT and Agriculture Agreements. As noted above, the SPS Agreement, which governs the application of human, animal and plant health measures to international trade, is the most relevant. SPS measures are explicitly excluded from the TBT Agreement; although some GMO-related product requirements may fall under the latter rather than the former,<sup>16</sup> they are not likely to be of significance in this case. The relationship between the SPS Agreement and the GATT, the original and central agreement of the WTO system, is less clear and would in practice be determined by the panel and Appellate Body; however, as the SPS Agreement was drawn up specifically to add more detail to the general principles set out in the GATT, it seems likely that it would indeed be the primary agreement of relevance.<sup>17</sup> What, then, are its key provisions?

#### Are the EU measures based on international standards?

Like other WTO agreements, the SPS Agreement aims to achieve harmonization in trade rules by encouraging the use of international standards. Domestic SPS measures may either be *based on* (Article 3.1) or *conform to* (Article 3.2) international standards,



guidelines and regulations where they exist, and three international standard-setting bodies are specifically referred to, including the Codex Alimentarius Commission, which deals with food safety. After protracted debate, at its June/July 2003 meeting the Commission approved three risk analysis standards for biotechnology-related food, including references to the 'tracing of products' and food labelling as risk management tools. This would appear to support the EU's procedures, although the US, along with much of the food industry, has argued that 'tracing' (the Codex language) is different from, and more limited than, 'traceability' (the EU regulation's language).<sup>18</sup>

Another possible international standard, also referred to by the EU in its defence, is the Cartagena Protocol (see above), and in particular its precautionary approach to international trade in GMOs. Whether the WTO dispute settlement process would recognize the relevance of an agreement that was not in force during the period covered by the dispute, and to which several of the countries involved, including all of the three main complainants, are not parties, is not clear. However, the experience of another WTO dispute, the well-known shrimp-turtle case involving a US embargo on imports of shrimp caught by fishing methods which killed large numbers of endangered sea turtles, suggests that it could. The dispute panel in the second stage of the case decided that the Inter-American Convention for the Protection and Conservation of Sea Turtles 'can reasonably be considered as a benchmark of what can be achieved through multilateral negotiations in the field of conservation and protection'<sup>19</sup> – even though the case involved a number of countries in Southeast Asia which were not parties to the agreement. The Appellate Body watered down this conclusion, finding that while the Convention could not be considered to be a legal standard, it was reasonable to use it as an example of appropriate regulation. It should be remembered, however, as pointed out above, that the Protocol applies less stringent requirements to LMOs for food, feed and processing than it does to LMOs for direct release into the environment, and therefore it could be used, as a standard or 'example', differently for different categories of GM products.

In any case, however, international standards are encouraged rather than required. Article 3.3 of the SPS Agreement allows domestic measures to be *higher than* international standards if there is scientific justification in accordance with the relevant provisions of Article 5.

### Can the EU measures claim scientific justification?

Article 5 of the SPS Agreement specifically addresses the assessment of risk and determination of the

appropriate level of sanitary and phytosanitary protection. Article 5.1 sets out the requirement that domestic measures must be based on the assessment of risk to human, animal or plant life or health; Article 5.4 requires that WTO members 'take into account the objective of minimising negative trade effects'; Article 5.5 prohibits the use of 'arbitrary and unjustifiable distinctions'; and Article 5.7 refers to the use of provisional measures 'on the basis of available pertinent information' with a view to a continuous reassessment of the measures in line with emerging scientific information.

A series of disputes over the past few years have clarified the interpretation of all of these terms.<sup>20</sup> In the beef hormones case, an EU ban on imports of US beef grown with the use of growth hormones was held to be WTO-inconsistent, primarily because the EU had failed to provide adequate scientific justification for the ban. However, in an important development, the Appellate Body concluded that the risk assessment process (for either temporary measures taken under Article 5.7, or permanent measures) could take into account minority or divergent scientific opinion and did not have to reflect simply the majority or mainstream thought. This supports the notion of regulating on a precautionary basis – in many ways the heart of the debate about GM regulations – even though the Appellate Body did not accept the EU's contention that the precautionary principle itself had become part of international law.

Subsequent disputes – the Australian salmon, Japanese varieties and Japan apples cases – added detail to the interpretation of 'risk' and 'risk assessment'. The Appellate Body found that the *possibility* of harm alone was not enough to justify trade-restrictive measures; there had to be some *likelihood* or *probability* of negative consequences, though this could be very small indeed. Similarly, the measures had to be based on *some* supporting scientific information. Although the findings were not completely consistent between the cases, it is possible to draw the general conclusions that precautionary measures based on *some* scientific evidence and *some* real level of risk should be allowable under the SPS Agreement. Once again, this would seem to support the view that the EU legislation on GMOs, and the procedures for risk assessment it incorporates, are WTO-consistent.

Whether the *de facto* moratorium, in place while the new legislation was being adopted, could be considered to be WTO-consistent raises slightly different questions. For it to be justifiable under Article 5.7 of the SPS Agreement, it would need to constitute a provisional measure: the EU would have to demonstrate that it was actively seeking 'to obtain the additional information necessary to make a more objective assessment of risk' and review the measure

'within a reasonable period of time'. If, as expected, the moratorium is lifted once the new traceability and labelling regulations enter into force, this should enable the moratorium to be justified.

### Are mandatory traceability and labelling requirements unnecessarily trade-restrictive?

In common with most of the WTO agreements, the SPS Agreement requires measures to be not more trade-restrictive than necessary in order to fulfil the objectives of the Agreement. Since the US and other GM exporters do not at present segregate GM from non-GM crops for domestic use, they would have to introduce costly crop identification and segregation systems or face the closure of export markets; the US has estimated that up to \$4 billion worth of US exports might be affected.<sup>21</sup> In addition, there are costs associated with labelling, traceability requirements, and testing of non-GM crops to discover whether accidental contamination with GM material has occurred. Cost estimates range from \$5 to \$25 per ton, depending on the products and precise identity systems adopted.<sup>22</sup>

This discussion is relevant to Article 5.6 of the SPS Agreement, which states that WTO members 'shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility'. The footnote to the Article adds that for these purposes, 'a measure is not more trade-restrictive than required unless there is another measure, reasonably available taking into account technical and economic feasibility, that achieves the appropriate level of sanitary or phytosanitary protection and is significantly less restrictive to trade'. The panel and Appellate Body may thus be forced into consideration of whether there are any feasible alternatives to the EU regulations, balancing this against the right of WTO members to determine their own level of sanitary and phytosanitary protection. It should be noted, however, that it is difficult to envisage *any* level of protection

from GMOs that does not involve segregation of GM and non-GM products; it may well be the case, therefore, that GM exporters will simply have to bear the costs of segregation. If it is found that these costs are unjustifiable, or should be borne by the importers, this appears to be tantamount to arguing that measures under the SPS Agreement cannot be used at all to exclude, or even to identify, GMOs.

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## Conclusions

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It is, of course, dangerous to speculate as to the outcome of the US–EU dispute, but it does seem that the weight of arguments, and the precedents set by previous disputes under the SPS Agreement, appear to favour the EU. This would have significant trade impacts, irrespective of how the EU will decide pending and future applications for the use of GM crops and foods. With stringent EU rules on labelling and traceability in place, the US and other GM exporters will be forced either to introduce segregation strategies or abandon entirely European and other markets hostile to GMOs.

A victory for the US and its allies would equally have significant implications, and may prove something of a Pyrrhic victory. As EU Commissioner Byrne pointed out in August, it is lack of consumer demand for GM products that lies at the root of low GM sales in Europe, and it is highly unlikely that consumers will become any more GM-friendly by a WTO finding requiring their governments to adopt lower levels of consumer protection. Such an outcome could possibly undermine public confidence in the WTO as an institution (not particularly high in any case) and lead to a backlash against any imports of US food, whether GM or not.

Towards the conclusion of the banana dispute between the US and the EU in the late 1990s, a WTO staff member was rumoured to have claimed that 'GM foods will make bananas look like peanuts'. Whatever the outcome of the current dispute, he was right.

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## Endnotes

<sup>1</sup> Scientists' Working Group on Biosafety, *Manual for Assessing Ecological and Human Health Effects of Genetically Engineered Organisms*: [www.edmonds-institute.org/manp1os.pdf](http://www.edmonds-institute.org/manp1os.pdf)

<sup>2</sup> C. James, 'Preview: Global Status of Commercialised Transgenic Crops: 2002', International Service for the Acquisition of Agri-Biotech Applications (ISAAA) Brief 27, 2003.

<sup>3</sup> An EU *directive* sets out general principles and procedures for EU member states to adopt, but they are allowed a degree of discretion in incorporating them into national legislation. An EU *regulation* is applied directly and uniformly throughout the EU.

<sup>4</sup> For a summary of the new provisions, see European Commission press release IP/03/1056, 22 July 2003, 'European legislative framework for GMOs is now in place'.

<sup>5</sup> *Ibid.*

<sup>6</sup> For a thorough analysis of the Protocol, and the negotiations that led up to it, see Christoph Bail, Robert Falkner and Helen Marquard (eds), *The Cartagena Protocol on Biosafety: Reconciling Trade in Biotechnology with Environment and Development?* (London: RIIA/Earthscan, 2002).

<sup>7</sup> In the end, the Cancun ministerial ended without agreement, so the Doha Round will not be completed by 2005, as originally planned.

<sup>8</sup> Cartagena Protocol, preamble.

<sup>9</sup> Draft Cancun Ministerial Text, Second Revision, 13 September 2003, available at:

[www.ictsd.org/ministerial/cancun/docs/draft\\_cancun\\_minist\\_text\\_rev2.pdf](http://www.ictsd.org/ministerial/cancun/docs/draft_cancun_minist_text_rev2.pdf)

<sup>10</sup> For a full analysis of the issue, see Duncan Brack and Kevin Gray, *Multilateral Environmental Agreements and the WTO* (Royal Institute of International Affairs, September 2003), available at [www.riia.org/pdf/research/sdp/MEAs\\_and\\_WTO.pdf](http://www.riia.org/pdf/research/sdp/MEAs_and_WTO.pdf)

<sup>11</sup> See Heike Baumüller, *Domestic Import Regulations for GMOs and their Compatibility with WTO Rules* (International Centre for Trade and Sustainable Development / International Institute for Sustainable Development Trade Knowledge Network, August 2003: [www.tradeknowledgenetwork/net](http://www.tradeknowledgenetwork/net)).

<sup>12</sup> 'US announces panel on EU GMO moratorium, as Grassley warns Egypt', *Inside US Trade*, 20 June 2003, p. 1.

<sup>13</sup> Edward Alden, 'US beats Egypt with trade stick' *The Financial Times*, 30 June 2003.

<sup>14</sup> UPI press story, 13 May 2003; 'EU slams US biotech threat', available at [www.thecampaign.org/News/may03r.php](http://www.thecampaign.org/News/may03r.php).

<sup>15</sup> *BRIDGES Weekly Trade news Digest*, 25 August 2003 ([www.ictsd.org](http://www.ictsd.org)).

<sup>16</sup> For example, measures related to changes in the nutritional value of GM foods (which are not related to food safety) or non-pest-related environmental concerns (e.g. measures to avoid adverse effects of pest-resistant GM crops on non-target species).

<sup>17</sup> For an analysis of this issue, see Robert Howse and Petros C. Mavroidis, 'Europe's Evolving Regulatory Strategy for GMOs – The Issue of Consistency with WTO Law: Of Kine and Brine', *Fordham International Law Journal*, Vol. 24, November–December 2000.

<sup>18</sup> See *BRIDGES Trade BioRes*, 11 July 2003 ([www.ictsd.org](http://www.ictsd.org)).

<sup>19</sup> *United States – Import Prohibition of Certain Shrimp and Shrimp products, Recourse to Article 21.5 by Malaysia*, Report of the Panel, WT/DS58/RW, 15 June 2001, para 5.71.

<sup>20</sup> For a full analysis of these cases, see Howard Mann and Stephen Porter, *The State of Trade and Environment Law 2003: Implications for Doha and Beyond* (International Institute for Sustainable Development and Centre for International Environmental Law, 2003), Chapter 5, 'The precautionary principle, the role of science and the WTO Agreements'.

<sup>21</sup> R. L. Paarlberg, *The US–EU Conflict over GM Foods: Implications for Poor Countries* (working paper, Weatherhead Center for International Affairs, Harvard University, 2002).

<sup>22</sup> European Commission (DG Agriculture), *Economic Impacts of Genetically Modified Crops on the Agri-Food Sector* (2000).

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## Further reading:

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- Christoph Bail, Robert Falkner and Helen Marquard (eds), *The Cartagena Protocol on Biosafety: Reconciling Trade in Biotechnology with Environment and Development?* (London: RIIA/Earthscan, 2002).
- Heike Baumüller, *Domestic Import Regulations for GMOs and their Compatibility with WTO Rules* ((International Centre for Trade and Sustainable Development / International Institute for Sustainable Development Trade Knowledge Network, August 2003: [www.tradeknowledgenetwork.net](http://www.tradeknowledgenetwork.net)).
- Duncan Brack, 'Trade and Environment', in Brian Hocking and Steven McGuire (eds), *Trade Politics* (London: Routledge, 2<sup>nd</sup> edition, forthcoming, 2004).
- Duncan Brack and Kevin Gray, *Multilateral Environmental Agreements and the WTO* (Royal Institute of International Affairs, September 2003), available at [www.riia.org/pdf/research/sdp/MEAs and WTO.pdf](http://www.riia.org/pdf/research/sdp/MEAs%20and%20WTO.pdf).
- Robert Falkner, 'Trading Food: The Politics of GMOs', in Brian Hocking and Steven McGuire (eds), *Trade Politics* (London: Routledge, 2<sup>nd</sup> edition, forthcoming, 2004).
- Robert Falkner, 'Picking the Wrong Fight: Genetically Modified Organisms and the World Trade Organization' *The World Today*, August/September 2003, pp. 33–4.
- Aarti Gupta, 'Governing Trade in Genetically Modified Organisms: The Cartagena Protocol on Biosafety', *Environment* 42(4), 2000, pp. 23–33.
- Robert Howse and Petros C. Mavroidis, 'Europe's Evolving Regulatory Strategy for GMOs – The Issue of Consistency with WTO Law: Of Kine and Brine', *Fordham International Law Journal*, Vol. 24, November–December 2000.
- Ruth Mackenzie, Francoise Burhenne-Guilmin et al. *An Explanatory Guide to the Cartagena Protocol on Biosafety* (Gland, Switzerland: IUCN, 2003).
- Howard Mann and Stephen Porter, *The State of Trade and Environment Law 2003: Implications for Doha and Beyond* (International Institute for Sustainable Development and Centre for International Environmental Law, 2003).
- Peter W.B. Phillips and William A. Kerr, 'The WTO Versus the Biosafety Protocol for Trade in Genetically Modified Organisms', *Journal of World Trade* 34(4), 2000, pp. 63–75.
- Sabrina Safrin, 'Treaties in Collision? The Biosafety Protocol and the World Trade Organization Agreements', *American Journal of International Law* 96, 2000, 606.

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