

## **Sanitary and Phytosanitary Issues: Where does the WTO go from here?**

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The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) governs regulations designed to mitigate potential negative externalities associated with the movement of products across national borders that might adversely impact human, animal, or plant life or health. When legitimate externalities or other market failures are addressed, such technical barriers have the potential to increase national welfare, even without consideration of terms-of-trade effects. All nations employ a wide range of standards and regulations to govern the sale of agricultural products in national markets, the majority of which are considered justified commercial limitations.<sup>1</sup> Governments may also impose technical barriers to isolate domestic producers from international competition. In these cases under small-country assumptions, technical barriers are welfare decreasing policies.

Prior to 1995, technical measures were governed by the original GATT Articles (primarily Article XX) and by the 1979 Tokyo Round Agreement on Technical Barriers to Trade. Although these codes required that measures not be applied in a discriminatory manner, create unnecessary obstacles to trade, or act as disguised trade restrictions, it was generally agreed that they were not effective in preventing the misuse of technical barriers (Roberts 1998). The SPS Agreement was negotiated during the Uruguay Round in response to these, as well as other, concerns.

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<sup>1</sup> The 1999 Secretariat Report on U.S. Trade Policy Review noted 50,000 U.S. standards in existence imposed to protect consumers, public health, safety, and the environment (WTO 2000b).

In contrast to the Agreement on Agriculture, which sets numerical limits and commitments in the areas of market access, domestic support, and export subsidies, provisions of the SPS Agreement provide guidelines for government behavior in implementing technical measures. The goal of the SPS Agreement is to protect the legitimate rights of importing countries with respect to national health and safety without providing a loophole for countries to avoid other trade-liberalizing disciplines of the Uruguay Round Agreements. Guidelines are designed to help identify when such barriers are disguised protection, but the legitimacy of specific SPS measures has to be evaluated on a case-by-case basis. After approximately five years of implementation, it is possible to compare the *a priori* expectations for the SPS Agreement with results to-date. The positions of WTO members, as they prepare for the next round of negotiations, can then be evaluated within this context.

### ***A Priori Expectations***

At the time of ratification, the Uruguay Round Agreements were generally perceived to include significant steps towards freer-trade in agricultural products, although there were some concerns over the ability of the SPS Agreement to achieve the desired results. The use of science as criteria for evaluation, transparency, and regionalization clauses were viewed as critical components of the SPS Agreement. Difficulties in interpretation and application of science, national sovereignty, and reaction to institutional strengthening were areas of concern.

Uniform harmonization with international standards is not an explicit requirement of the SPS Agreement, yet it is obviously important to implementation success (Josling 1998). Members are encouraged to base their SPS regulations on guidelines established by recognized international organizations in order “to harmonize sanitary and phytosanitary measures on as

wide a basis as possible” (Art. 3, Para. 1).<sup>2</sup> Recognizing that the international guidelines may not reflect the preferences and/or needs for externality mitigation within every nation, the SPS Agreement also allows Members to set their own (presumably higher) level of protection if it is based upon a risk assessment that incorporates available scientific evidence. The use of science as criteria for policy evaluation is a unique feature of the SPS Agreement. It arguably holds governments to a higher standard of accountability when compared to criteria used as the basis for implementing other, non-SPS, technical measures such as those covered by the TBT Agreement (Roberts 1998). In addition, scientific criteria can provide for greater stability of expectations among trading partners concerning trade and in designing domestic regulations (Bhagwati 1996).

Movement towards a more transparent process, implemented through the equivalency and notification guidelines, was also viewed as a significant step towards freer trade. Possible public scrutiny of regulations could raise the political costs of using technical regulations as disguised protection for domestic agriculture (Sykes 1995). Members must accept the equivalence of other Members’ SPS measures, if they achieve the same level of risk protection. In order to determine if the level of protection is the same, Members are encouraged to provide access for testing, inspection of facilities, or other relevant procedures (Art. 4, Para. 1).

In addition notification requirements provide an opportunity for comment before regulatory changes are enacted and may prove to be a catalyst for effective implementation of the SPS Agreement as countries publicize measures under consideration. Prompt publication is required if the proposed change puts in place restrictions that are not substantially the same as an

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<sup>2</sup> Recognized international organizations are the Codex Alimentarius Commission [Codex] for food additives, veterinary drug and pesticide residues, contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practices; the International Office of Epizootics [OIE] for animal health; and the International Plant Protection Convention [IPPC] for plant health.

international standard and if the measures may have a significant impact on trade (Art. 7). Hence, the *ex ante* opportunity for Members to comment on proposed regulatory changes has been enhanced by the SPS Agreement. The transparency requirements are obligatory for all Members, including least-developed countries, except when urgent problems arise.<sup>3</sup>

Finally Article 6 of the SPS Agreement obliges Members to adopt their regulations to conditions in regional areas not necessarily constrained by geographical areas defined by national borders. In particular, Members are obliged to recognize the existence of pest- or disease-free areas within an exporting nation. The regionalization criterion has the potential to open up previously restricted areas to trade.

Creation of the WTO and revised dispute settlement procedures were seen as critical components of institutional strengthening. The WTO provides a formal institution to govern the administration of multilateral trade agreements as was proposed, but not implemented, at the 1947 Geneva conference. In addition, the concept of the GATT as a single undertaking is new with the Uruguay Round Agreements. Prior to 1995, Members were able to sign the basic GATT Agreement without signing numerous side-agreements (such as the 1979 TBT Agreement) that were also negotiated among subsets of Members. Since 1995, all Members are bound by the full set of GATT/WTO obligations, thus helping to clarify the legal relationship between the side-agreements and obligations of the GATT.

One of the primary goals of the Uruguay Round negotiations was to establish a more efficient and credible dispute settlement mechanism based on an agreed set of procedures.<sup>4</sup> The

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<sup>3</sup> Allowances are made for *ex poste* emergency notifications (Annex B) and provisional measures in cases where relevant scientific evidence is insufficient (Art. 5.7).

<sup>4</sup> In order to achieve this goal, the previous consensus-based dispute settlement system was converted to a quasi-judicial system governed by the WTO. Under the new system Members have the right to initiate a panel hearing without full consensus; there are strict time limits set for each stage in the dispute process; panel reports can only be rejected by unanimous vote; and panel rulings are to be binding on all Members.

changes in dispute resolution have moved the GATT somewhat from a system of “soft law” where legal norms do not effectively compel compliance, to one of “hard law” where there is a relatively high expectation of compliance with legal norms. This may increase the likelihood of compliance and the credibility of the enforcement mechanisms. The strengthened dispute settlement procedures are likely to be of particular relevance to technical barriers since the SPS Agreement provides guidelines for government behavior, as opposed to numerical limits on policy adoption.

In addition to the *a priori* expectations for implementation of the SPS Agreement, there were some concerns over the ability of the SPS Agreement to achieve the desired results. While the use of science as criteria for policy evaluation in the Uruguay Round SPS Agreement is more stringent than criteria negotiated in previous GATT Rounds, there is substantial room for interpretation by Members. Other than requiring a risk assessment, the SPS Agreement does not provide guidelines for identifying acceptable scientific procedures. Concurrence may be difficult to achieve since science is, in practice, usually the findings and explanations proposed by various experts in the field of concern and, over time, criteria in use will change as scientific and risk assessment methodology evolves. As technology for detection and measurement of physical occurrences becomes more sophisticated, the potential for disagreement between opposing scientific views can increase. For example, the methodology for assessment of biological hazards, such as plant pests and microbial pathogens, is relatively new and much more complex than that for toxicological and chemical risks.

The results of risk assessment depend critically on the probabilities, both objective and subjective, associated with specific events and outcomes. Decision-makers must choose among policy options when they are uncertain about the probabilities to associate with specific

outcomes. They are missing information about the consequences of their actions that could be known if more precise scientific knowledge was available. In such cases, decision-makers often exhibit a cautious approach and can be shown to prefer situations where they have more knowledge. In particular, probabilities for low-probability, high-consequence events are often over-estimated. These events are relevant for SPS issues as, for example, the probability of introducing a non-indigenous pest as a result of relaxing a technical measure may be quite low, but the economic consequences of such an event could be significant for domestic crop or livestock producers.<sup>5</sup>

Once a low-probability, high-consequence event has occurred, scientific experts may agree that reoccurrence is unlikely, yet public concerns about the probability of reoccurrence are likely to be biased upward, and the demand for stricter regulations may increase. Differences between scientific assessment and public perception may prove difficult to resolve as WTO Members debate the role of consumer sovereignty. In addition to positive risk assessment, there are two normative issues that must be addressed in setting an appropriate level of risk protection: whose interests should be protected and what level of risk is acceptable.

Additional *a priori* concerns over sovereignty included the ability to set acceptable regulatory standards in an international forum. Critics feared that, in order to reach a negotiated consensus, internationally adopted standards would reflect the least-common-denominator, or lowest level of protection. The emphasis on reaching consensus might also act to ensure delay or avoidance of discussion on controversial matters. Governments may assert that their own

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<sup>5</sup> Importation of a given product may result in a pest infestation that increases the costs to domestic producers but lowers the market equilibrium price faced by domestic consumers. Orden and Romano (1996) illustrate this dichotomy among outcomes from a SPS policy decision for a long-standing dispute over the import of HASS avocados into the United States from Mexico and conclude, in part, that even when an SPS trade barrier is based on sound scientific analysis, it may not be the preferred economic policy in terms of maximizing national welfare.

interests are not represented adequately in international decision-making, particularly developing countries, where the resources to participate in multiple meetings and organizations are limited. Additionally, governments may argue that national protection levels should be set within their boundaries and without the negotiated consideration of other interests that is a part of any international decision.

Finally, the movement of GATT dispute resolution towards a system of hard law might not enhance the long-run prospects for freer trade. The prospect of an increase in the number of disputes could cause governments to resist making new commitments or lead to a breakdown in negotiations (Abbott 1997). Further, the new hard laws may not be designed to decrease trade barriers; for example, the SPS Agreement specifically authorizes Members to set their own acceptable level of risk, which could potentially legitimize reduced trade.

Since technical barriers provide trade restrictions that may be deemed legitimate by the WTO, the dispute settlement process is likely to be increasingly important in resolving controversy over specific issues. Panel rulings and statements will help clarify the acceptable interactions of science, economics, and politics in determining the role of technical barriers in agricultural trade. However as the WTO ultimately still depends on the consensus and support of Member nations, the dispute settlement procedures may not ultimately be the constraining factor for government behavior. Individual government commitments to freer trade and the underlying principles of the GATT will be the critical factor for success.

### **Implementation: Mixed Results**

Implementation of the SPS Agreement, after approximately 5 years, has produced mixed success. The progress has more often been subtle, while the setbacks have been more widely publicized. As a mechanism to move towards freer trade in agricultural products, the SPS

Agreement has been arguably successful. Standard setting, regionalization, and transparency criteria have proven to be effective, albeit with continuing progress underway. Concerns remain over the role of politics and the ability of developing countries to fully participate. Dispute settlement and national sovereignty debates and controversies remain highly publicized.

There are no readily available quantitative measures indicating the number of Members who have revised regulations to comply with international standards or the resulting level of market access achieved. However the relevant standard setting bodies have been increasingly active in cooperative roles with WTO. The SPS Committee specifically recognized the (i) intensification and simplification of the Codex standard-setting procedures; (ii) increased activity in the Office International des Epizooties; and (iii) revision of the International Plant Protection Convention (WTO 1999a).

The regionalization criterion (Art. 6) has opened up some previously restricted areas to agricultural trade. For example, prior to the Uruguay Round Agreements, cattle, swine, sheep and some meat from countries where foot-and-mouth disease was present were banned from entry into the United States. Revised, post Uruguay Round, U.S. regulations will allow imports from low-risk regions within a country. As a result, Argentina is now able to export these products to the United States on a limited basis. In its review of the operation and implementation of the SPS Agreement, the SPS Committee noted the critical importance for international trade in agricultural products of recognizing pest- or disease-free areas or areas of low pest or disease prevalence.

There were over 1100 SPS notifications filed during the first five years of Agreement implementation. The *ex ante* opportunity for Members to comment on proposed regulatory changes has been enhanced. For example, notification by the EU of a future decrease in the

acceptable maximum level of aflatoxin residues resulted in a large number of comments from both developed and developing countries that may have had difficulty learning about proposed changes prior to implementation of the SPS Agreement (Roberts, Orden, and Josling 1999).

An increasing number of Members have begun to notify their SPS measures. By March 1999, notifications had been submitted by 59 Members, 91 members had established National Notification Authorities, and 100 Members had established National Enquiry Points (WTO 1999a). For calendar year 1999, the SPS Committee reported the circulation of 95 SPS notifications including 32 from high income, 59 from middle-income, and 4 from low-income countries (Table 1). Notifications from middle- and lower-income countries have steadily been increasing over the implementation period.<sup>6</sup> The ability to receive notifications in a timely manner has also been enhanced as Members are encouraged to publish proposed regulatory changes at self-designated sites on the World Wide Web.

**Table 1. SPS notifications circulated, 1999**

| WTO Members         | Measures Notified<br>----- number ----- | Members Notifying<br>----- percentage----- |
|---------------------|---|--|
| High Income         | 32                                      | 42   |
| Upper-Middle Income | 25                                      | 54   |
| Lower-Middle Income | 34                                      | 38   |
| Low Income          | 4                                       | 10   |
| Total               | 95                                      |  |

Source: World Trade Organization, 2000(c) and author's calculations

Of the total number of SPS notifications prior to 1999, 83 were challenged in the informal forum provided by the WTO's SPS Committee. In its internal review the SPS Committee noted that a substantial part of its time was devoted to the discussion of specific implementation problems. A number of SPS-related trade issues were resolved through formal

discussion of the Committee. Additional disputes were resolved through bilateral negotiations. For example, between October 1996 and September 1998, APHIS reported that 112 restrictions related to plant and animal health were resolved through bilateral technical exchange.

Another important contribution of the SPS Committee is its role in clarification of the Agreement through rulings and interpretations. Extensive discussion on particular issues has helped to draw attention to specific trade concerns and to avoid potential conflicts (WTO 1999a). For example, the ability of Members to set a prohibitively low level of acceptable risk will be limited by the non-discrimination policy of GATT, which requires that domestic and imported products be subject to the same requirements. An emerging consensus in the SPS committee is that the objective is to avoid arbitrary or unjustified distinctions between the level used across regulatory measures (Greifer 1998).

Despite the progress made towards freer agricultural trade through implementation of the SPS Agreement, there still remain some areas of concern. The legitimacy of specific technical barriers remains subject to challenge on scientific or other procedural grounds (for example, not-least-trade-restrictive). Empirical evidence concerning the extent of questionable technical measures in international agricultural trade is very difficult to assess, as there is no current comprehensive data source available. A 1996 USDA survey of technical barriers to U.S. agricultural exports identified 302 questionable barriers imposed by 61 countries and two regional trading blocks that had an estimated trade impact of \$4.9 billion.<sup>7</sup> Since the cross-

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<sup>6</sup> Roberts, Orden and Josling (1999) reported notifications from 81, 54, 44, and 6 percent of high, upper-middle, lower-middle, and low-income countries from 1995 – June 1999, respectively.

<sup>7</sup> Barriers identified in the USDA survey include an expert consensus-based view of 1996 measures that decreased, or potentially decreased, U.S. agricultural exports to specified export markets and appeared to violate at least one of the disciplines of the WTO Agreements. Of the 302 measures identified, over 86 percent were considered questionable because they potentially violate a principle of the SPS Agreement, 9 percent were potentially disciplined by the TBT Agreement and 5 percent served more than one purpose and so might be covered by multiple Agreements, or appeared to violate another provision of GATT 1994 (Thornsbury et al. 1999).

sectional survey was not repeated, there is no direct evidence concerning either escalation or reductions in these numbers.

An empirical analysis using this same data set demonstrates that the incidence of questionable technical barriers and their impacts on trade can be partially explained within a political economy framework. A robust result is the negative relationship between the relative contribution of agriculture to an economy (as measured by its share of GDP or labor force) and the application of questionable barriers to U.S. agricultural exports. There is also some evidence that questionable technical barriers serve as substitutes for other forms of border protection, and that increased openness of an economy or trade opportunities faced by its agricultural exports reduces the use of questionable technical barriers against U.S. products.

Among all countries, formal WTO complaints related to nine distinct SPS issues have been filed under the dispute settlement procedures since 1995, whereas during the 47 prior years of GATT there were virtually no trade disputes over SPS measures that reached formal dispute settlement. Three of the recent disputes have advanced to WTO panel and Appellate Body rulings: the EU-U.S./Canada *Hormones* case, the Australia-Canada *Salmon* case, and the Japan-U.S. *Varietal Testing* case (Roberts 1998). Outcomes of the three cases have been somewhat disappointing in terms of increasing agricultural trade. In the *Hormones* dispute, the complainants were authorized to introduce retaliation in the form of increased tariffs on EU exports after the EU failed to either modify its measure to comply with the final Appellate Body ruling or to offer acceptable compensating trade concessions. In the *Salmon* case the revised measures notified by Australia have been challenged by Canada in regards to their compliance. The degree of market access created by the *Varietal Testing* ruling will not be known until Japan notifies its intended changes.

The loss of national sovereignty remains the most often publicly cited opposition to the WTO (and thus by inclusion to the SPS Agreement). However, it is difficult to quantify this complaint. Roberts, Orden and Josling (1999) argue that Appellate Body rulings in the SPS cases provide evidence against such a claim. The three rulings have upheld Member obligations to base technical regulations on scientific based risk assessment while allowing national standards that are more stringent than those set internationally. In addition, the right to invoke the precautionary principal as a means of mitigating unfamiliar risks on a temporary basis was reinforced.

An additional concern remains about the ability of developing and least-developed countries to participate fully in the benefits of the SPS Agreement. Opportunities to participate in several international standard-setting bodies, as well as WTO and numerous committees, due to resource constraints were a concern *a priori*. Membership lists for WTO, Codex, OIE, and IPPC indicate that both the number and the percentage of members in each of the organizations were higher for non high-income countries in almost every case (Table 2). With the exception of OIE, the greatest number of members was in the low-income category. However, membership in an organization is not always indicative of active participation and decisions undertaken will also have trade impacts on countries that do not participate. Impacts may be trade-restricting when standards are set at levels that resource-constrained countries cannot technologically meet. There is also potential for positive impacts as promulgated standards may serve to legitimize current or slightly modified practices as acceptable to potential importers.

**Table 2. Membership in WTO and international standard-setting bodies, 1999**

| Members      | Organization                  |          |          |          | Total     |
|--------------|-------------------------------|----------|----------|----------|-----------|
|              | WTO                           | Codex    | OIE      | IPPC     |           |
|              | -----Number (% of total)----- |          |          |          |           |
| High Income  | 36 (72%)                      | 33 (66%) | 26 (52%) | 33 (66%) | 50 (100%) |
| Upper-Middle | 24 (67%)                      | 25 (69%) | 23 (64%) | 31 (86%) | 36 (100%) |
| Lower-Middle | 32 (56%)                      | 40 (70%) | 32 (56%) | 46 (81%) | 57 (100%) |
| Low Income   | 42 (67%)                      | 54 (86%) | 26 (41%) | 53 (84%) | 63 (100%) |

Source: WTO 1999b and author's calculations

### *Focus on Citrus*

Citrus is a relatively small component of agricultural cash receipts in the U.S. (less than two percent) yet it is critically important to the agricultural economies of selected states, notably Florida (Table 3). On average, approximately 10 percent of U.S. citrus production entered export markets during the 1990s. The percentage of international sales was higher for selected commodities, with shares approaching 27 percent in 1990 and 1991 for grapefruit.

**Table 3. Citrus cash receipts, 1998**

| State         | Cash Receipts    |                      |
|---------------|------------------|----------------------|
|               | -----\$1000----- | -----% of total----- |
| Florida       | 1,607,570        | 23.77                |
| California    | 897,241          | 3.64                 |
| Arizona       | 55,340           | 2.34                 |
| Texas         | 21,220           | 0.16                 |
| United States | 2,581,371        | 1.31                 |

Sources: USDA/ERS U.S. State Farm Income Data and author's calculations

The 1996 USDA survey results included 18 questionable technical barriers applied to all citrus or specific citrus products, for an estimated \$103.94 million in estimated trade impact. An additional 5 barriers (\$13.8 million) were identified as applied to fresh fruit and 3 barriers (\$28.56 million) were identified as applied to all fresh fruit and vegetables. Again, since the

survey was not repeated, there is no way to determine if these numbers have increased or decreased since 1996. However, there have been at least 12 WTO notifications of changes in technical standards that impact citrus trade, including 8 from the U.S., indicating that Members have been making modifications in technical regulations as they are applied to citrus.

Expanding trade in citrus has not been free of SPS controversies. In 1998, the Government of Argentina officially requested consideration to allow the export of fresh grapefruits, lemons, and oranges from four states in Argentina to the U.S. The national plant protection organization of Argentina (SENASA) proposed that the citrus-growing area in these four states (Catamarca, Jujuy, Salta, and Tucuman) is free of canker (*Xanthomonas axonopodis* pv. *citri* (Hasse)).<sup>8</sup> An 1998 economic assessment found that Argentinean lemons are the product that are likely to be exported to the U.S. and that, due to different growing seasons, shipments of fresh product were expected to complement, rather than compete, with U.S. production (USDA APHIS 1998).

The possibility of easing the ban on the import of Argentinean citrus to the U.S. has raised the anticipation that U.S. citrus might gain access to the Argentinean markets which were previously closed to any region not completely free of fruit flies. U.S. officials have long contended that there is no need for such a ban and a less restrictive import protocol could be applied since fruit flies are also present in Argentina. A comparison of relative prices suggests the possibility of access to the Argentinean market for Florida grapefruit.

In August 1998 the U.S. formally notified WTO of regulatory modifications that would recognize an area within Argentina as free from citrus canker (WTO 1998). Imports would be

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<sup>8</sup> Citrus canker is a bacterial disease that effects most commercial citrus varieties, causing lesions on leaves, stems, and fruit and eventual tree decline. There is no known human safety risk associated with citrus canker, yet the disease will eventually make citrus plantings non-productive and has an immediate negative impact on the quality of fruit entering the fresh market.

permitted under conditions designed to prevent infections from the other citrus-growing regions of Argentina and infections from additional citrus diseases, specifically sweet orange scab (*Elsinoe australis* Bitancourt & Jenkins), black spot (*Guignardia citricarpa* Kiely), and other plant pests. However, continued negotiations over the definition of appropriate conditions of entry and a subsequent outbreak of citrus canker in regions of U.S. production, no product has yet been transferred in either direction.

Additional negotiations concerning risks associated with citrus canker are on-going between the United States and the Republic of Korea. The U.S. allows imports of citrus from the Cheju region of Korea; except into the five major citrus producing states (California, Florida, Arizona, Louisiana, and Texas) under a set of specified phytosanitary safety measures.<sup>9</sup> The Korean government has questioned the legitimacy of geographic limitations and requested permission to expand imports into the additional states. USDA/APHIS is undertaking a risk assessment but has clearly stated that destination is a risk factor with the probability of disease establishment in production areas to be quite high (WTO 2000b). Simultaneously, the U.S. and Korea are engaged in consultations regarding mandatory fumigation and quarantine requirements on citrus entering Korea. USDA officials have argued that the treatments shorten the shelf-life of fresh fruit and have requested recognition for regions of California, which have been declared fruit fly free.

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<sup>9</sup> In 1998/99 31 metric tons (MT) of tangerines were imported to the U.S. from Korea. Volume rose to 377 MT in 1999/2000. Over the same time periods 19,000 and 27,516 MT of oranges, 2,585 and 1,215 MT of lemons, and 2,197 and 690 MT of grapefruit were exported from the U.S. to Korea (USDA FAS 2000).

## **Positions for the Next Round**

Article 20 of the Agreement on Agriculture committed Members to initiating continuing negotiations one year before the end of the implementation period. The mandate for negotiations includes taking into account 1) the experience to that date from implementing the reduction commitments; 2) the effects of the reduction commitments on world trade in agriculture; 3) non-trade concerns such as special and differential treatment to developing-country Members; 4) the objective to establish a fair and market-oriented agricultural trading system; and 4) further commitments necessary to achieve the long-term objectives listed in the preamble to the Agreement.

In preparation for the next round of negotiations, a series of three Ministerial Conferences were held, with the last November 30 – December 3, 1999 in Seattle. Although the 1999 WTO Ministerial meetings in Seattle ended without agreement on an agenda for the next round, a preliminary agenda for agriculture was drafted. In this early draft there was no consensus to open or renegotiate the SPS Agreement and the preliminary positions of specific countries do not indicate a strong movement to do so. However, as in the initial Uruguay Round negotiations, discussion with regard to other agricultural trade and institutional issues may have significant impacts on interpretation and further implementation of the SPS Agreement. The EU position on agriculture specifically mentions the SPS Agreement, particularly as it relates to food safety issues and asks for conformation that non-discriminatory science-based measures designed to achieve the determined level of safety are in conformity with the SPS Agreement (WTO 1999c). A timetable has been set for continued negotiations on agriculture with proposals on Member objectives due by the end of 2000, with some flexibility for revisions before March 2001.

Debate over participation from developing and least-developed Members is on-going. In review of implementation issues, the SPS Committee recognized a continuing need for enhanced technical assistance through the international organizations as well as continued bilateral exchange. An increasing concern of least-developed country members is their declining share in world trade, investment, and output (WTO 2000a). The ability to implement and/or document compliance with SPS regulatory restrictions has been suggested as a contributing factor to this marginalization. Roberts, Orden, and Josling (1999) caution against extensive use of claims for special and differential treatment by developing countries. An overuse of such claims could reinforce perceptions that the products are unable to meet standards and may actually hamper market access.

The use of biotechnology would likely, at least in part, be governed by the disciplines of the SPS Agreement. Prior to the Ministerial meeting in Seattle, the Canadian government proposed establishment of a working group on biotechnology. Such a group would be cross-committee and thus could incorporate issues governed by multiple Agreements. While the working group was not launched, biotechnology is likely to be a contentious topic of debate in any agenda on agriculture may have significant impacts on interpretation and enforcement of the SPS Agreement.

## **Conclusions**

The Uruguay Round negotiations ended with substantial institutional reforms, both for GATT in general and with regard to agricultural trade in particular. Creation of the WTO provided a formal organization to oversee the GATT Agreements and strengthened the compliance and enforcement mechanisms. The Agreement on Agriculture brought agricultural trade discipline more in concordance with the underlying principles of the GATT by requiring specific numerical commitments on market access, domestic support, and export subsidies.

Technical barriers to trade were explicitly addressed in the SPS and TBT Agreements, designed to recognize the rights of governments to use technical barriers as a tool to correct negative externalities, while seeking to limit the ability to intentionally misuse such measures. The SPS Agreement was seen, *a priori*, by most as a positive step towards freer trade in agricultural products.

As WTO Members drafted their positions for the Ministerial meetings in Seattle, there was not a strong agenda to reopen the SPS Agreement for further negotiations. Rather a consensus seemed to emerge that the Agreement had been arguably successful, albeit with some areas of concern as well as recognition of the need to continue with progress that had begun. In an internal review, the SPS Committee concluded that the agreement had contributed to improving international trading relationships. Increasing use of the transparency requirements, adaptation of regulations to regional conditions, progress in the recognized standard-setting bodies, and continued conflict resolution through informal negotiations and discussions are areas of subtle and steady progress towards freer trade. Areas of concern include enhanced participation by developing countries, the practical application of the equivalence principal, and enforcement of formal Dispute Settlement Body rulings. A consensus seems to be emerging that the SPS Agreement has been arguably successful and that future progress can be best achieved through continued refinement of the existing structure, the work of the SPS Committee, and the WTO dispute settlement procedures.

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