



**INSTITUTE FOR AGRICULTURE AND TRADE POLICY**

# Sustainability Criteria, Biofuel Policy and Trade Rules

**An Analysis of Government Programs  
Promoting Sustainable Biofuel Production  
Under WTO Law**

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# Introduction

Biofuels, the programs that support them, and the impacts of these policies on climate, environment and society have been subject to some of the most intense scrutiny of any areas of public policy in recent years. Public support for biofuels production has generated considerable controversy for a variety of reasons, including impacts on food prices and production decisions, as well as questions about environmental costs and benefits. These concerns are increasingly being raised in legislative bodies around the world. However, policies that address these issues may be challenged under international trade law.

Some of the controversy generated by biofuels policies relate to fundamental disagreements regarding appropriate targets and incentives for the production and use of biofuels. Others focus more narrowly on how to improve the sustainability of existing biofuels production in the United States and the possibility of new policies or programs to improve outcomes. But at the end of the day, while these conflicts focus specifically on the biofuel sector, their relevance is much larger.

Local, state and national governments around the world are increasingly attempting to embed sustainability criteria within their policies. These sustainability criteria span the spectrum of industries. Areas that may be included under “sustainability” criteria include policies that give preferences related to greenhouse gas emissions or other pollution levels, to policies focused on clean energy and safer materials, all the way to policies that support and protect local production and specific products.

How do programs incorporating sustainability criteria—whether for biofuels or other agricultural goods—stack up under World Trade Organization (WTO) rules? And what implications do WTO rules have for future government initiatives that give preference to sustainability and local production? If we are to construct the type of policies needed to address the multiple environmental, social and economic crises that we face, understanding how these policies interact with international trade rules is absolutely required. This paper is a first attempt—within the context of biofuel policy—to raise some of these questions and address necessary changes.

## 1. Clarifying WTO principles

When policymakers, analysts and advocates are formulating policy options for sustainability criteria, uncertainty regarding the legality of those options under WTO law has the potential to derail efforts to implement legal or low-risk programs. Misperceptions of WTO law on

programs involving government incentives, subsidies, and other support should not unduly undermine advocacy for and adoption of state and federal programs that promote the production and use of sustainable biofuels. A pragmatic approach taking into account both the legality of the programs under WTO law and the likelihood that such programs would be challenged by another WTO member state can assist in the expansion of government programs to improve the sustainability of agricultural production without undue concern over trade challenges.

This paper outlines general principles of WTO law concerning government programs that subsidize production of particular goods. The paper also analyzes two existing state and federal programs providing tax credits to producers of cellulosic biofuels: Minnesota’s Cellulosic Ethanol Investment Tax Credit and the Federal Cellulosic Biofuel Producer Tax Credit.

## 2. A Summary of WTO subsidy provisions applicable to biofuels tax credits

While the law of the WTO, deriving from its many agreements, is broad, and government programs supporting biofuel production could potentially implicate other agreements, the main provisions at issue are found in the Agreement on Subsidies and Countervailing Measures (SCM), the Agreement on Agriculture (AA), and the General Agreement on Tariffs and Trade (GATT).

### A. Agreement on Subsidies and Countervailing Measures

The SCM Agreement breaks out subsidies into two groups: prohibited subsidies and actionable subsidies. As its name suggests, prohibited subsidies are *per se* impermissible. By contrast, actionable subsidies are impermissible if they give rise to certain effects that harm other WTO members. Article 3 of the SCM defines prohibited subsidies as those that are contingent on export performance or use of domestic goods over imported goods. These subsidies are *per se* prohibited because they are deemed trade distortive by nature.

Actionable subsidies are covered by Articles 5 and 6 of the SCM. Article 5 prohibits the use of subsidies that have an adverse effect on another member. The adverse effect can arise in the form of injury to domestic industry, nullification of benefits accruing to other members under the agreements of the WTO, or serious prejudice to the interests of another member. Article 6 defines serious prejudice as 1.) impeding or displacing imports from another member in the home or third-country market, 2.) significant price

undercutting or suppressing, or 3.) increasing the world market share of the subsidizing member with regard to the product(s) at issue. Determinations of adverse effects and serious prejudice are based on factual analyses by dispute panelists.

U.S. cotton subsidies, for example, were the subject of a WTO challenge by Brazil. The dispute panel in that case ruled in favor of Brazil, finding, in addition to problems with export credit guarantees, that the Step 2 marketing payments were prohibited under SCM Articles 3.1 (b) and 3.2 because they were only available to domestic users of U.S. cotton. In addition, it found that the marketing loan and countercyclical payments provided to cotton producers resulted in significant price suppression, “constituting serious harm to Brazil’s interests within the meaning of SCM Art. 5(c).”<sup>1</sup>

After a series of appeals (which the U.S. lost, for the most part), Brazil was granted authority to retaliate. It announced it would raise certain tariffs, as well as suspend certain intellectual property rights commitments. The U.S. eventually eliminated the Step 2 program and the subsidy component of the export credit guarantees. It also agreed to pay Brazil \$147.3 million a year for “technical assistance and capacity building in the cotton sector” until further reforms are enacted in the next Farm Bill.

## B. Agreement on Agriculture

The SCM Agreement does not have exclusive jurisdiction over subsidies issues. The Agreement on Agriculture also has disciplines covering support provided to agricultural production. The scope of products covered under the agreement is broad, covering Chapters 1–24 of the Harmonized System (HS).<sup>2</sup> Under the Harmonized Tariff Schedule of the United States (HTSUS),<sup>3</sup> ethanol is classified under heading 2207. Accordingly, government subsidies involving ethanol are covered not only by the provisions of the SCM Agreement, but also by the Agreement on Agriculture. By contrast, biodiesel, which appears to be classified under heading 3824, is not covered by Agreement on Agriculture domestic support disciplines.

Under the Agreement on Agriculture, domestic support is split into three categories depending on the nature of the support. Support considered relatively more trade distorting is subject to greater restrictions under the agreement. The three color-coded categories are Green, Blue, and Amber box measures.

Green box domestic agricultural support measures are those that do not distort trade,<sup>4</sup> or at most cause minimal distortion. Qualifying Green box subsidies are permitted without limitations. These subsidies are government-funded and do not involve price support. Green box programs, which tend not to be product-specific, include direct income support that is decoupled from (i.e., not linked to) current production levels or prices.<sup>5</sup> Annex 2 to the Agreement on Agriculture specifically includes within the scope of Green box support certain research expenditures and environmental programs. Under Annex 2, research expenditures related to particular agricultural products and in connection environmental programs, are permissible so long as they do not involve direct payments to producers or processors. In addition, payments under environmental programs that meet certain criteria are permitted, so long as payments are limited to costs associated with complying with the program.

Amber box support measures include those that are considered to distort production and trade more than minimally. This includes price support provided to producers, subsidies directly related to production, and other programs that stimulate additional production. WTO members are required to reduce Amber box support over time.<sup>6</sup> Practically speaking, this translates into aggregate maximum support (“AMS”) level commitments on a country-by-country basis. As such, adopting a new Amber box measure is not *per se* WTO illegal. Rather, the permissibility of such a program will depend on aggregate Amber box support provided by a WTO member.

Blue box support measures include programs that would otherwise fall within the Amber box, but for the imposition of conditions designed to reduce production, i.e., support that imposes production limits or quotas. Like Green box support measures, Blue box measures are not subject to spending limits. Notably, Blue box measures are no longer used by the U.S.

## C. GATT Article III:2

While not directly related to subsidy provisions, Article III:2 of the General Agreement on Tariffs and Trade,<sup>7</sup> which relates to the internal taxation of products, is relevant in the analysis of the support programs at issue since they involve tax credits. Article III:2 contains two basic obligations. First, members must not tax imported products more than “like” domestic products. Second, taxation on “directly competitive or substitutable products” must not

be dissimilar so as to afford protection to domestic production. In this context, facially discriminatory measures are almost certain to violate Article III:2.

### 3. Evaluation of select state and federal programs under WTO law

In order to illustrate the application of WTO to government programs promoting sustainable biofuels production, two existing state and federal programs are described and analyzed below. Both the Minnesota Cellulosic Ethanol Investment Tax Credit (Minnesota Credit) and the Federal Cellulosic Biofuel Producer Tax Credit (Federal Credit) involve tax credits. However, the two programs differ in significant ways, giving rise to different issues under WTO law.

#### A. Minnesota Cellulosic Ethanol Investment Tax Credit

The Minnesota Cellulosic Ethanol Investment Tax Credit provides tax credits to entities investing in a qualified small business that uses or is involved in the research or development of a proprietary technology related to cellulosic ethanol. The tax credit, which expires in January 1, 2015, is equal to 25 percent of the qualified investment, up to \$250,000 annually. The credit is available for an investment of up to \$1 million over the life of a qualified small business.

Under the law establishing the credit, the small business at issue must 1.) be headquartered in Minnesota, 2.) receive state certification, 3.) have more than 50 percent of employees and payroll in Minnesota, *and* 4.) have fewer than 25 employees. The business must be primarily engaged in innovation 1.) using proprietary technology to add value to a product, process, or service in a qualified high-technology field, 2.) researching or developing a proprietary product, process, or service in a qualified high-technology field, *or* 3.) researching, developing or producing a new proprietary technology for use in the fields of agriculture, tourism, forestry, mining, manufacturing or transportation. Working with cellulosic ethanol is specifically identified as a “Qualified high-technology field.”

In evaluating the Minnesota Credit, a key threshold issue is determining which WTO agreements are at issue. A tax credit is a form of a subsidy, and as such, is subject to the disciplines of the SCM Agreement. In addition, as described above, ethanol is classified as an agricultural product for purposes of the Agreement on Agriculture, and therefore, must be assessed under that

agreement. Lastly, since the Minnesota Credit is a tax credit, it is also potentially subject to GATT Article III:2.

#### i. SCM Agreement

Under the SCM Agreement, the key question is whether the Minnesota Credit is a prohibited or actionable subsidy. As explained above, prohibited subsidies are those that are contingent on export performance. The program at issue has no provisions requiring export performance in order to qualify for the tax credit. As such, there is no WTO issue here.

Actionable subsidies involve support programs that harm other WTO members. That harm could come in the form of increased market share of the subsidizing member, dislocation of market share of another member, price suppression of the product at issue on world markets due to stimulation of additional production, or nullification of other benefits. Making a determination of whether a subsidy is actionable requires a factual inquiry by a WTO dispute panel.

Given the fact that this subsidy is not tied to production and that it is limited in scope, it is unlikely that a WTO panel would find injury to another member. It is possible, however, that a panel could aggregate this program with other U.S. programs targeting cellulosic ethanol production under a broad challenge by another WTO member. It is conceivable that under such a challenge, a panel could find adverse effects or significant prejudice arising from the Minnesota Credit and other programs. However, the program standing alone does not raise concerns under the SCM Agreement.

#### ii. Agreement on Agriculture

The key issue to address in assessing the Minnesota Credit under the Agreement on Agriculture is whether it is an Amber box support measure. Amber box support measures are considered to distort production and trade more than minimally and are subject to spending limits under commitments made by the U.S. that are capped at lower levels with each passing year.

The Minnesota Credit is available to companies working in the cellulosic ethanol industry if certain conditions are met. Companies can receive a tax credit tied to the level of investment they have made in 1.) using proprietary technology to add value to production, processing, or services relating to

cellulosic ethanol, 2.) researching or developing a proprietary product, process, or service relating to cellulosic ethanol, *or* 3.) researching, developing, or producing a new proprietary technology for use in the cellulosic ethanol industry.

The Minnesota Credit is unlikely to be considered an Amber box program. The support at issue is tied to the level of investment, not production. While it may result in a direct payment to a producer of cellulosic ethanol, it is not directly linked to production as in a per-unit credit. Instead, it is linked to the recipient's identity as a certain type of producer, processor, service provider or R&D firm, which is akin to direct payment programs for certain types of farmers. Accordingly, this would likely be viewed as a Green box support measure.

Annex 2 to the Agreement on Agriculture also specifically excludes measures supporting research related to particular agricultural products. Such support must be provided through a publicly funded government program not involving transfers from consumers and must not provide price support to producers. As such, to the extent that the Minnesota Credit, which fulfills these criteria, is provided in the context of a qualified research and development investment, it is specifically exempt from Amber box status.

### iii. GATT Article III:2

The analysis under GATT Article III:2 is more complex. This provision forbids applying disparate and unfavorable taxation on imported products such that domestic products are protected. Under the Minnesota Credit, a tax credit is offered for Minnesota companies that are 1.) using a proprietary technology to add value to a product, process, or service in a qualified high-technology field, *or* 2.) researching or developing a proprietary product, process, or service in a qualified high-technology field, *or* 3.) researching, developing or producing a new proprietary technology for use in the fields of agriculture, tourism, forestry, mining, manufacturing or transportation.

The key question is whether there is a foreign "like" product capable of import such that the domestic product is being protected. The answer to this question will be dependent on the factual scenario. First, a WTO dispute panel would have to determine whether there are like foreign and domestic products at issue. A panel may consider that there is no like foreign product because the law benefits the "use"

or "research and development" of a proprietary technology, product, process, or service. On the other hand, a panel may find that within the context of using a proprietary technology, foreign technology may be substitutable for domestic technology. To the extent a panel found that there are foreign products like a domestic product that benefits under the Minnesota Credit, it is conceivable that the panel could find a violation of Article III:2 since only a Minnesota company using such technology could take advantage of the credit.

### B. Federal Cellulosic Biofuel Producer Tax Credit

The Federal Cellulosic Biofuel Producer Tax Credit (Federal Credit) provides cellulosic biofuel producers a tax credit of up to \$1.01 per gallon of cellulosic biofuel against the producers' federal income tax liability.<sup>8</sup> Under the program, the cellulosic biofuel must be sold by the taxpayer (in most cases a firm) 1.) to another person for use by such person in the production of a qualified cellulosic biofuel mixture in its trade or business, 2.) to another person for use by such person as a fuel in a trade or business, *or* 3.) to another person who sells the cellulosic biofuel at retail to another person, placing the cellulosic biofuel in the buyer's fuel tank. Alternatively, the taxpayer could use or sell the biofuel for any of the purposes described above.

Under the Federal Credit, which was recently extended to December 31, 2013, the cellulosic biofuel must be produced and used in the United States. For purposes of the program, cellulosic biofuel is defined as liquid fuel produced from any lignocellulosic or hemi-cellulosic matter that is available on a renewable basis, and meets U.S. Environmental Protection Agency (EPA) fuel and fuel additive registration requirements.

As in the case of the Minnesota Credit, a key threshold issue in evaluating the Federal Credit is determining which WTO agreements are at issue. As a subsidy, the tax credit is subject to the disciplines of the SCM Agreement. Cellulosic biofuel is an ethanol product, an agricultural product for purposes of the Agreement on Agriculture. As such it is also subject to that agreement. Lastly, since the Federal Credit is a tax credit, it is also potentially raise issues under GATT Article III:2.

#### i. SCM Agreement

As described above, the key question is whether the Federal Credit is a prohibited or actionable subsidy. The program at issue has no provisions requiring export

performance in order to qualify for the tax credit, and as such, is not a *per se* prohibited subsidy.

Since actionable subsidies may involve support programs that harm other WTO members, an initial review of the Federal Credit, which provides up to a \$1.01 tax credit per gallon, raises significant concerns that the program would reduce world market price and/or promote additional U.S. production. A factual inquiry would need to be conducted by a WTO dispute panel to determine whether the Federal Credit results in increased market share of the U.S., dislocation of market share of other WTO members, price suppression of cellulosic ethanol on world markets due, or nullification of other benefits accruing to other members under the WTO agreements.

This factual inquiry would turn on issues such as 1.) the quantity of cellulosic ethanol benefiting from the subsidy, 2.) the total subsidy provided, 3.) US production levels before and after the imposition of the credit, 4.) world cellulosic ethanol prices before and during the subsidy period, and 5.) relative global market share of the U.S. and other cellulosic ethanol producers before and after the imposition of the credit. It is quite possible that a panel would find that the Federal Credit is an actionable subsidy. This is more likely if the complaining WTO member makes a persuasive case for aggregating the effects of the Federal Credit with other U.S. programs benefiting cellulosic ethanol.

## ii. Agreement on Agriculture

Under Annex 2 to the Agreement on Agriculture, domestic support programs that provide price support to producers, subsidies directly related to production, or otherwise distort production and trade are considered Amber box measures. These measures are aggregated on a country-by-country basis and subject to progressively decreasing caps on spending.

The Federal Credit provides a subsidy, in the form of a tax credit, on a per-unit basis. This program provides a government payment that is directly linked to production and is clearly an Amber box measure that would be included when aggregating the total amount of agricultural support provided by the U.S. Notably, the U.S. currently provides far less Amber box support than permitted under its current commitment levels. On October 1, 2012, the U.S. reported that it provided \$4.1 billion of Amber box support in 2010. The cap for the U.S. during the same period was \$19.1 billion.<sup>9</sup>

## iii. GATT Article III:2

Under GATT Article III:2, members must not tax imported products more than “like” domestic products, and taxation of “directly competitive or substitutable products” must not be dissimilar so as to afford protection to domestic production. The Federal Credit, which is facially discriminatory towards non-U.S. cellulosic ethanol, fails meet these standards.

This tax credit, available for producers, dealers, retailers and users of cellulosic ethanol, is only available if the ethanol is produced and used in the United States. As such, this program fails to tax foreign cellulosic ethanol the same as the domestic equivalent. In addition, the program would likely be viewed as protecting domestic production, even if the central objective of the credit was to stimulate U.S. production.

## 4. Likelihood of challenge by trading partners

When crafting and considering the feasibility of programs such as the Minnesota or Federal Credits, assessment of WTO compliance vulnerabilities should be complimented with a realistic appraisal of the likelihood that such programs will be challenged by another WTO member.

The likelihood that a program will be attacked depends on numerous factors, such as the size of the subsidy, the impact of the support program on global markets and international trade flows, whether there are other programs benefiting the same products, the location of foreign competing producers, and the level of sophistication and resources of the trade ministries in those countries. Just because a program is technically non-compliant does not mean it will ever be subject to challenge at the WTO. Bringing a WTO case requires a major mobilization of resources and most trade disputes never make it to the WTO.

## Conclusions

- In these two cases, WTO rules would appear to pose limits on programs that favor local producers and investors over foreign firms, promote innovation in an area where there may be non-local alternatives available, or that effectively lower prices or increase production of local goods. However, in practice there is a fair degree of flexibility (or at least ambiguity) built into the system. The fact that the U.S. spends well below its limits on Amber box programs, as well as the significant challenges to initiating and succeeding in a dispute

at the WTO, mean that policymakers have a fair degree of latitude in pushing the limits of the system.

- At the same time, if relatively modest programs like these—which focus exclusively on investments—contradict existing WTO rules, what are the implications for more ambitious efforts to encourage a transition to sustainable agriculture or to respond to climate change? How vulnerable are programs that more actively address practices, emissions, impacts and other aspects of production? These programs may be subject to a significantly greater risk of direct trade challenges.
- As civil society and governments further develop and advocate for new policies to embed sustainability into governmental programs, whether focused on climate change, renewable energy, food security or local economies, it is clear that we need a better understanding of how these policies are vulnerable to challenge under trade law, but more importantly, we must learn how to begin bringing trade rules into alignment with broader societal goals.

## Endnotes

1. See U.S. Upland Cotton (DS 267) at [http://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/1pagesum\\_e/ds267sum\\_e.pdf](http://www.wto.org/english/tratop_e/dispu_e/cases_e/1pagesum_e/ds267sum_e.pdf).
2. The Harmonized System is an international customs classification system establishing basic numerical tariff categories for imported goods. Customs classifications are ten-digit numerical sequences. The HS establishes common categories through the six-digit level. As such, importing countries participating in the HS have flexibility to determine the final four digits of the classification.
3. The HTSUS is available at <http://www.usitc.gov/tata/hts/bychapter/index.htm>.
4. While there is no exact definition of trade distortion within the WTO agreements, the concept is key to the Agreement on Agriculture. See Stefan Tangermann, Tim Josling and others for more discussion of this issue.
5. See Domestic Support in Agriculture, The Boxes, World Trade Organization, available at [http://www.wto.org/english/tratop\\_e/agric\\_e/agboxes\\_e.htm](http://www.wto.org/english/tratop_e/agric_e/agboxes_e.htm).
6. Notably, programs involving de minimis expenditures are exempt. This encompasses programs where payments under the program are less than 5 percent of the value of production for the commodity for developed countries or 10 percent for developing countries.
7. Article III:2 states that, "The products of the territory of any contracting party imported into the territory of any other contracting party shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1" (i.e., they should not be applied to imported or domestic products so as to afford protection to domestic production).
8. This amount may be reduced in certain circumstances (e.g., if the taxpayer is taking advantage of any related payment or credit).
9. See WTO Document G/AG/N/USA/89 (October 1, 2012).