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# WTO REGULATIONS AND BIOENERGY SUSTAINABILITY CERTIFICATION – SYNERGIES AND POSSIBLE CONFLICTS

ROBERT ACKRILL AND ADRIAN KAY

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Dr. Simeon Coleman
Division of Economics
Nottingham Trent University
Burton Street, Nottingham, NG1 4BU
UNITED KINGDOM
Email: simeon.coleman@ntu.ac.uk

# WTO Regulations and Bioenergy Sustainability Certification – Synergies and Possible Conflicts

**Robert Ackrill[1] and Adrian Kay[2*]**

1. Division of Economics, Nottingham Business School, Nottingham Trent University
2. Crawford School of Economics and Government, Australian National University

## Abstract

Biofuels are increasingly being produced and consumed as a partial substitute to fossil-fuel based transport fuels in the fight against climate change. One policy introduced recently by some countries to help ensure biofuels perform better than fossil fuels environmentally is sustainability criteria. These, typically, require lower greenhouse gas emissions than fossil fuels, considering not only their use but also production. Concerns have been expressed from various quarters that such criteria could represent WTO-incompatible barriers to trade. The present paper addresses two specific issues. First, it argues that biofuels should be treated like any other traded product under WTO law, in particular the GATT agreement. Thus an importing country could not impose different trade measures dependent on whether the biofuel was produced according to its sustainability criteria. Second, the TBT Agreement provides guidance on how to draw up international standards that can help ensure WTO compatibility. This cannot guarantee such compatibility, but it can help reduce significantly the chances of WTO Members bringing actions against a fellow Member's biofuels sustainability criteria. There is little direct case law to draw upon, but it is argued that, if the TBT guidance is followed, in the long term the absence of case law can be taken as an indication that sustainability criteria are WTO-compatible.

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**WTO Regulations and Bioenergy Sustainability Certification – Synergies and Possible Conflicts**

> *Recognizing* that their relations in the field of trade and economic endeavour should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development
>
> Part of the Preamble to the Agreement Establishing the WTO

## Introduction

In the last decade, as the production of feedstocks and their conversion into bioenergy, notably biofuels, has expanded dramatically (encouraged in most countries by substantial public policy interventions and incentives), a range of policy issues, problems and controversies have emerged. The purpose of this paper is to address just one of these: the WTO compatibility of sustainability certification systems. Whilst the production of bioenergy was conceived mainly as a domestic solution to domestic energy concerns, international trade in bioenergy products has begun to emerge. One of the energy concerns countries seek to address with biofuels is fossil fuels' contribution to carbon emissions and global warming. This focus has, in turn, led to much attention being paid to these aspects of biofuels production and usage.

Concern over the environmental impact of biofuels production has given rise to concerns over their 'sustainability', as it would be contradictory if different types of biofuels produced in different countries – trade in which is relatively new but with the potential to expand very substantially very quickly – failed to address appropriately these concerns. This has raised questions as to whether criteria and certification systems put in place to try to ensure biofuels production is sustainable also conform to World Trade Organisation (WTO) rules and principles. As the quote at the start of this paper indicates, policies which protect and preserve the environment are given validity in this context. Yet to what extent can the standard trade liberalising logic of the WTO, concerning market access, market shares and trade liberalisation, apply in

this case? Domestic public policy creates both the market and the sustainability standards; they are mutually constitutive rather than having a pre-existing market which the public policy instrument comes along subsequently to protect.

As the policy issue of environmental sustainability has emerged and become more prominent, so a literature has sought to determine the WTO-compatibility of biofuels sustainability criteria and standards (see, *inter alia*, Howse *et al*, 2006; Charnovitz *et al*, 2008; Erixon, 2009; Echols, 2009; Swinbank, 2009; Lendle and Schaus, 2010). Furthermore a number of papers, written largely but not exclusively by legal scholars, ponder explicitly the legal possibility of whether biofuels can be treated differently in terms of trade policy instruments, depending on whether they have been produced sustainably or not (see, *inter alia*, Switzer, 2007; De Vera, 2008; Tarasofsky, 2008; Condon, 2009; de Gorter and Just, 2009; Mitchell and Tran, 2009; Switzer and McMahon, 2010).

We do not seek to challenge this legal analysis but instead argue that, from a policy perspective, the key trade policy concern is simple: WTO rules and such case law as exists suggest that biofuels will not be allowed to have differential policy treatment based on the sustainability of production. The focus thus shifts to ensuring that sustainability standards (principally on the import/consumption side) and certification systems (principally on the export/production side) are compatible both with each other and with WTO rules and precepts. Thus we argue that the core principles of the General Agreement on tariffs and Trade (GATT) apply to biofuels and that the TBTA provides guidance as to the establishment of WTO-compatible standards and certification systems. This does not eliminate the possibility of challenges against sustainability criteria, but following certain clear rules can help reduce the chances of a challenge occurring.

The paper, first, outlines EU and US sustainability criteria. Second, we highlight the principal GATT articles relevant to biofuels sustainability criteria and consider how potential trade problems –and thus possible actions at the WTO – can be avoided. Third, we consider how the development of sustainability criteria in an international setting, in accordance with principles laid down in WTO Agreements, creates wider synergies that can enhance international biofuels trade further. What this shows,

ultimately, is that biofuels are not a commodity apart from others in the WTO, given rules that are determined by broad principles rather than the specific details of any one commodity. That said, although the options for ensuring the WTO-compliance of biofuels sustainability criteria are limited, not only do they exist, the lack of number of options helps make the feasible alternatives much clearer. This paper focuses on biofuels for transport, bioethanol and biodiesel, because these are the dominant forms of traded bioenergy for which sustainability issues are currently arising.

**Biofuels Sustainability Criteria – An Introduction**

Biofuels, transport fuels derived from specific types of plant matter, are seen as one weapon in the fight against carbon emissions causing (anthropogenic) climate change. It is therefore not surprising that biofuels are being put under great scrutiny to ensure the carbon emissions from biofuels production and use provides lower carbon emissions than the fossil-fuels they are replacing. One specific aspect of this is the conditions under which biofuels are produced. Concerns over this have given rise to some of the major consuming countries – notably the EU and US – setting up biofuels sustainability criteria.

Considering EU policy first, the legislation which effectively marks the beginning of EU policy is the 2003 Biofuels Directive (so-called).[1] This set voluntary targets for the percentage of transport fuels to be represented by biofuels or other renewables; of 2% by the end of 2005 and 5.75% by the end of 2010. Article 3(4) asks member states, in the measures they take, to "consider the overall climate and environmental balance of the various types of biofuels and other renewable fuels and may give priority to the promotion of those fuels showing a very good cost-effective environmental balance, while also taking into account competitiveness and security of supply." Thus in this first phase of biofuels promotion, member states should think about environmental factors, but alongside (and possibly trumped by) other economic concerns.

On the other hand, Article 4(2) of the Biofuels Directive requires the Commission every two years, starting no later than the end of 2006, to report on member states

[1] Directive 2003/30/EC of 8 May 2003 on the Promotion of the Use of Biofuels or Other Renewable Fuels for Transport. Official Journal of the European Union L123, 17.5.2003, pp. 42-46.

progress. This should address no only their biofuels incorporation rates, but also economic and environmental considerations of further increase in biofuels use (Article 4(2)b); a life-cycle perspective (not 'analysis') on biofuels, to see if some are both "climate and environmentally friendly" and potentially "competitive and cost efficient" (Article 4(2)c); and how sustainable the production of the feedstocks is (Article 4(2)d). Thus, in future, environmental and economic factors are given more equal weight, with explicit consideration having to be given to the environmental impacts of biofuels production and use.

These concerns are returned to in Commission of the European Communities, 2005: 9. In that report, the Commission commits to addressing "national targets for the market share of biofuels"; "using biofuels obligations"; and, representing an important shift in thinking about how to create incentives for biofuels use, "requiring that, through a system of certificates, only biofuels whose cultivation complies with minimum sustainability standards will count towards the targets." Moreover, recognising early on that measures should be WTO-compatible, the Commission is clear that "the system of certificates would need to apply in a non-discriminatory way to domestically produced biofuels and imports." This is explored further below.

The progress report (Commission of the European Communities, 2007) marks an important pre-cursor to the EU sustainability criteria that would then find their way into EU legislation in 2009, in Article 17 of the Renewable Energy Directive (RED) and Article 7(b) of the Fuel Quality Directive (FQD).[2] It is beyond the scope of the present paper to chart the details of this legislative end game in detail (see also, *inter alia*, the Explanatory Memorandum to Commission of the European Communities 2008a; and Commission of the European Communities 2008b). The sustainability criteria introduced simultaneously into the RED and revised FQD thus address the following issues, compliance with which is required to ensure the biofuels count towards national and EU targets and eligibility for financial assistance.

[2] Respectively, Directive 2009/28/EC of 23 April 2009 on the Promotion and the use of Energy from Renewable Sources... Official Journal of the European Union L140, 5.6.2009, pp. 16-62; Directive 2009/30/EC of 23 April 2009 Amending Directive 98/70/EC as Regards the Specification of Petrol, Diesel and Gas-Oil and Introducing a Mechanism to Monitor and Reduce Greenhouse Gas Emissions…. Official Journal of the European Union L140, 17.5.2003, pp. 88-113.

First, biofuels must deliver greenhouse gas (GHG) emissions reductions over fossil fuels – at least 35% initially (or from 2013 if the production facility was operating before 2008); at least 50% for 2017. From 2018, biofuels produced in plants which began production in 2017 must deliver savings of at least 60%. Details are provided for how to calculate these GHG emissions reductions.

Second, biofuels feedstock production cannot occur on certain types of land with a specific function or status before 2008. Lands excluded for biodiversity reasons are.

- primary forests and woods, undisturbed or lacking "visible" human activity;
- land protected under law, international or inter-governmental agreement (unless feedstock production did not compromise the nature-protection goals);
- highly biodiverse grassland (except, for "non-natural" grassland, if biofuel feedstock harvesting is required for grassland status to be maintained). NB By the end of 2010, the Commission had still to produce a definition of highly biodiverse grassland.

A second set of exclusions are based on the carbon that would be released from certain types of land if disturbed by feedstock production:

- wetlands;
- continuously forested area;
- undrained peatland (unless feedstock production and harvesting does not require the land to be drained).

In addition, and important for the WTO context, these criteria apply to all feedstocks sourced within and outside the EU. Also, member states cannot impose additional and more stringent requirements than these. Furthermore, in the two-yearly reports to be submitted by the Commission from 2012, reference shall be made to whether or not countries that are a significant source of feedstocks (again, inside and outside the EU), have implemented a range of International Labour Organisation Conventions, the Cartagena Protocol on Biosafety and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. As discussed further below, it is significant that whilst social criteria are a compulsory part of the reporting process, they are not part of the formal criteria which define biofuels sustainability.

In the US, we begin the biofuel story with the Energy Policy Act (EPAct) of 2005. This amended the Clean Air Act to incorporate a Renewable Fuel Standard (RFS), setting s (low) statutory blending percentage for ethanol in gasoline (2.78% in 2006, the first full year of operation, for example. This is equivalent to 4 billion gallons, a figure scheduled to rise to 7.5 billion gallons by 2012). Enforcement was via Renewable Identification Numbers (RINs), which were required to prove renewables had been added to transport fuels (and which were, in turn, the means of providing firms with access to federal program support). That said, the definition of renewable fuel for which the RINs were issued was "any motor vehicle fuel that is used to replace or reduce the quantity of fossil fuel present in a fuel mixture used to fuel a motor vehicle" based on, *inter alia*, various named feedstocks. It thus lacked any reference to what we now understand as sustainability concerns (see Title XV, Subtitle A).

This situation was changed just two years later, however, with the passing of the Energy Independence and Security Act (EISA). This requires that to qualify as a renewable fuel (and thus for a RIN), there must be a life-cycle GHG emissions reduction of 20% for 'standard' renewables compared with the fossil fuels they replace, 50% for 'advanced biofuel' and for 'biomass-based diesel', and 60% for 'cellulosic biofuel'. The EISA also defined the meaning of renewable biomass with reference to sustainability concerns (see Title II, Subtitle A). The key features are:

- Planted crops and crop residue harvested from agricultural land cleared or cultivated before 19 December 2007 either actively managed or fallow, and nonforested;
- Planted trees and tree residue from actively managed tree plantations on non-federal land cleared before 19 December 2007;
- Animal waste material and animal byproducts.
- Slash and pre-commercial thinnings that are from non-federal forestlands, excluding forests or forestlands that are critically imperiled, imperiled or rare; and old growth or late successional forest;
- Biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire.
- Algae.
- Separated yard waste or food waste, including recycled cooking and trap grease.

Thus EU and US standards have both similar features and notable differences. Both identify specific land and production types, both target GHG emissions reductions, both make the receipt of economic benefits conditional on compliance with the criteria and both benchmark international agreements. On the other hand, only the US refers explicitly to advanced biofuels, whilst production from older plants must deliver on GHG emissions reductions targets after a few years in the EU, whereas in the US older production facilities are grandfathered. A further distinction can be inferred from the wording of these criteria, in the light of the wider context of policy – EU criteria, explicitly, refer to imports (insofar as the criteria apply equally to biofuels and feedstocks sourced within and outside the EU); US criteria, however focus primarily on domestic production.

**WTO Trade Concerns**

The principal concern of the present paper is the extent to which sustainability criteria are consistent with WTO rules. With biofuels production and trade being so new, there is very little direct legal or case evidence to work on. General legal principles embedded in the WTO agreements, tested via non-biofuels case law, can be drawn upon for guidance. Implicit in this is a facet of biofuels trade that is central to the subsequent analysis – biofuels, as a product group, will not be treated differently to other goods in the WTO. This brings us to the first issue, one that we outline only briefly. Currently, there is no distinct Harmonised Commodity Description and Coding System (HS) classification for either ethanol or biodiesel. Indeed, Harmer (2009: 5) argues this is where an analysis of biofuels trade needs to start.

Of these two biofuels – ethanol – is classified under HS Chapter 22 ("beverages, spirits and vinegar"), whilst biodiesel is classified under HS Chapter 38 ("miscellaneous chemical products"). Moreover, ethanol can be either undenatured ethyl alcohol (HS 2207.10), or denatured ethyl alcohol (HS 2207.20). The latter group can be further disaggregated into a variety of further sub-categories, for example "specially denatured" (HS 2207.20.11), "denatured" (HS 2207.20.12) and "other denatured" (HS 2207.20.90): fuel ethanol has no separate category. Biodiesel is located under HS 3824.90 (chemical products not elsewhere specified) – along with many other products, again making the identification of biodiesel quantities difficult. This classification raises a further potentially significant issue: ethanol is an

agricultural good (HS 22 falls under the Agreement on Agriculture, AoA), whereas biodiesel is an industrial good. With the WTO Agreements treating agricultural and industrial goods differently, the trade policy and disciplinary implications could vary, potentially substantially, in a possible Doha Development Agenda (DDA) agreement. That said, according to Howse et al (2006: 11-12), if the WTO Members so wished, they could exclude ethanol from the AoA by listing it as such in the Annex. For more on biofuels' classification see, *inter alia*, Howse *et al*, 2006; Condon, 2009; Harmer, 2009; Le Roy et al, 2009, Switzer and McMahon, 2010.

The range of trade principles governing biofuels trade – and thus the trade policy options available to governments – are the same as any other commodity. Most Favoured Nation (MFN), non-discrimination and national treatment all apply, as do the uses of key policy instruments, notably customs duties (regulated under GATT Article II), internal taxation (Article III), quantitative restrictions (Article XI), or domestic subsidies (The Subsidies and Countervailing Measures Agreement, SCM). Another option could be to subsidise overseas production as part of development assistance, which could offer almost unlimited policy freedom (we do not consider this further in the present paper). Whilst biofuels production, usage and trade give rise to a wide range of WTO-compatibility concerns, the design and implementation of sustainability criteria lead us to focus on one Article in particular: GATT Article III, "National Treatment on Internal Taxation and Regulation". For a detailed discussion of issues relating to subsidies, see Harmer, 2009. Whilst Article XI might be considered relevant, we note that "the interpretative Note Ad Article III stat[es] that, *when a domestic measure applies both to domestic and imported products*, it is Article III [as opposed to Article XI] that is applicable." (Tarasofsky, 2008: 8, emphasis added). Thus so long as sustainability criteria set facially-neutral obligations on all biofuels production regardless of source, Article III is appropriate.

A key question is whether countries can treat biofuels differently in trade policy terms, depending on whether they have been produced 'sustainably' or not. Article III introduces the concept of 'like' products, requiring that regardless of origin, imported products cannot be treated less favourably than domestically-produced like products. This does not, however, require identical treatment (for example in terms of policy instruments used), a point returned to later. Condon (2009: 906ff) makes it clear how

important the concept of product likeness is to the functioning of the GATT Agreement, as it is central to the principle of non-discrimination. The Appellate Body in the EC-Asbestos case referred to a 1970 GATT Working Party Report to identify four criteria that, whilst "neither treaty mandated nor a closed list of criteria" help establish product likeness (Condon, 2009: 906. See also Switzer, 2007: 36):

- Sharing physical properties, nature or quality
- Serving the same or similar end-uses
- Whether consumers perceive or treat the products as serving the same or similar end uses
- Sharing the same international tariff classification

All four factors, explicitly or implicitly, refer to demand-side factors. The last of these points is, for reasons explained earlier, not without its problems, but in terms of 'ethanol', 'biodiesel', etc is a useful indication of closeness within a product classification. The other three refer to intrinsic features and consumption-related characteristics; there is nothing here that supports a definition of product likeness based on Processing and Production Methods (PPMs), an issue we return to shortly. In a GATT case, tuna-dolphin, (ruled on in 1994 but not adopted. See, *inter alia*, de Vera, 2008: 673-674 for details), the ruling went against ***unilateral*** US import restrictions (based on whether tuna were caught using dolphin-friendly techniques or not). The Panel argued that like products should be defined only by the products themselves, not PPMs (see Condon, 2009: 908).

A subsequent case, shrimp-turtle, "suggests that WTO jurisprudence may be more amenable to considerations of sustainable development" (de Vera, 2008: 673) than earlier GATT rulings, suggesting there may be a role for production-related criteria in the definition of product likeness, at least insofar as they relate to sustainable development (recall the quote at the start of the present paper). The US issued licenses for imports of shrimp only if they were caught using methods that did not endanger sea turtles. Although the AB ruled against this measure, it was not because it was unilateral but because the measure "was applied in an arbitrarily discriminatory way." (de Vera, 2008: 674). We consider the question of arbitrary and discriminatory measures at greater length below.

Is it conceivable that the third criterion, consumer preferences – including consumer perceptions – can allow for biofuels to be treated as unlike, based on whether they were produced sustainably or not? We argue there are two distinct reasons why WTO rules are unlikely to sanction such a policy distinction. The first is simply that both case law and a simple practical reading of WTO principles point this way. To use an analogy in the context of environmental concerns, domestic trade policies which discriminated against goods whose production generated relatively high carbon emissions could be allowed. The situation can easily be imagined where this could lead to exports from countries whose production or energy-generation sectors faced a huge increase in barriers.

The second is more practical in nature and represents a potential Catch 22 situation: consumers need access to all types of biofuel to be able to express a preference freely, but governments may wish to exclude certain types of biofuel on the basis of actual or claimed consumer preference (see also Charnowitz *et al*, 2008: 10): consumers may not freely be able to express their preferences if the available products have been limited by *ex ante* decisions. Indeed, this could cover not only policy decision by governments but also those of companies, both supplying sustainably-produced biofuels and the manufacturers of motor vehicles, who may or may not produce for sale vehicles capable of driving on various blends of biofuel.[3]

The 1981 Spanish Coffee case saw Spain apply different tariffs to different beans and cultivation methods. This case fell down because the different beans were then blended together, denying consumers any opportunity to express preferences for coffee produced by different methods. That said, this ruling still left open the possibility that revealed consumer preferences may permit differential treatment of goods based on production methods (subject to the earlier caveats). Concerted consumer lobbying, for example, may be one point of reference. The ruling on EC-Sardines made it clear, however, that, policy-makers must avoid introducing measures

[3] This, in turn, raises questions about the valuation of non-market goods using Willingness to Pay surveys, for example, and the extent to which they may carry weight in the WTO. We do not consider this issue further here.

based on consumer preferences that have been manipulated (see also Switzer and McMahon, 2010: 17)[4]. Cheyne, 2009, meanwhile analyses issues pertaining to the environmental labelling of goods and the provision of information to consumers. A problem with allowing consumer preferences to help define product likeness or unlikeness is that, as Charnowitz *et al* (*ibid*) point out, any Panel or AB would have to determine likeness case by case; thus limiting any potential for *ex ante* learning by policy-makers from existing case law in the design of policies for other commodities.

The foregoing leads us to conclude that biofuels cannot be treated differently based on the sustainability of their production methods. Thus any sustainability criteria must be subject to GATT Article III. Given this, however, it may be possible to identify "General Exemptions" using GATT Article XX (see, for example, the Appellate Body [AB] ruling in the shrimp-turtle case). Article XX offers ten exemptions to the GATT rules, so long as the "measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade". Two exemptions in particular feature in analyses of the applicability of Article XX to biofuels. Article XXb identifies measures "necessary to protect human, animal or plant life or health"; Article XXg identifies measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption".

One key difference between these exemptions is that, in any case brought against a country's biofuels policy seeking exemptions under Article XX is that measures for which exemption would be sought under XXb would have to be "necessary" to deliver the desired policy outcome, but only having to be "relating to" the desired policy outcome under XXg (see, inter alia, Tarasofsky, 2008: 9). In this paper, however, we do not consider further Article XXb. Case law indicates that it applies principally to domestic concerns (as used, *inter alia*, in relation to clean air and to Brazil's environment). Article XXg does not apply to cross-border measures automatically, however, but only insofar as that, by referring to "domestic" production and consumption, a distinction is being drawn with production and/or

[4] This paper does not have page numbers. This numbering takes the title page as Page 1.

consumption in other countries (see also Condon, 2009: 918). One issue not pursued further in the present paper is the question of whether the domestic/cross-border distinction may start to break down in the context of domestic activities affecting adversely the global climate, insofar as it affects human health and biosystems.

Important for the debate over sustainability, moreover, Article XXg is a 'conserving' paragraph, used as a means of conserving exhaustible natural resources. This suggests that sustainability criteria need to be clear on what is being conserved, if Article XXg is to be used as a defence against any possible WTO challenger over such criteria. Both EU and US criteria do refer to certain land types, biodiversity, etc. One could even argue that by producing renewable fuels to substitute for fossil fuels, countries were seeking to conserve finite and depleting reserves of the latter "exhaustible natural resources". Overall, if a country wished to design sustainability criteria to minimise the prospect of challenges from other WTO members, reference to issues of conservation would help.

Before considering the process of drawing up sustainability criteria in more detail, we offer two issues that may warrant consideration but which are not addressed further here. First, if biofuels are motivated by concerns over anthropogenic climate change, might scepticism in some quarters over the science underpinning anthropogenic climate change constitute the basis for an action brought against a WTO Member's sustainability criteria, on the basis they were unnecessary as biofuels could not be "related to" (or offered as) a correction for something argued not to exist? Second, there are broad differences in the policy approach to cause-and-effect in different Members, as seen indifferent opinions over the 'precautionary principle'. The lower burden of proof of XXg over XXb, discussed earlier, may however mean a Panel or AB felt able to determine the legal merits of a case built on XXg without having to form a definitive position on disputed matters of science.

Ultimately, we suggest the success of an Article XX exemption for biofuels sustainability criteria would rest on those criteria being worded in such a way as to conform with the 'conserving' agenda underpinning Article XXg. An important element of this was raised by the AB report on the shrimp-turtle case, where it was argued that the meaning of "natural resources" is "by definition, evolutionary", based

on “contemporary concerns of the community of nations about the protection and conservation of the environment” (quoted in Condon, 2009: 912). How this might affect any dispute drawing on XXg, however, as yet remains untested.

**What to do or how to do it? The relevance of the TBT Agreement**

In addition to the GATT, another element of the WTO relevant to biofuels is the Technical Barriers to Trade Agreement, TBTA (see, *inter alia*, Condon, 2009; Switzer, 2007; Howse *et al*, 2006; Charnowitz *et al*, 2008). The TBTA seeks to strike a balance between, on the one hand, both countries’ rights to protect, *inter alia*, human, animal and plant life and health, and security interests, alongside the need to develop technical regulations and standards; with, on the other hand, the basic trade principles of the GATT (see the Preamble to the TBTA). Indeed the Preamble identifies as a goal of the TBTA, “to further the objectives of the GATT”. With products such as biofuels, technical specifications are essential, not only to facilitate trade but, more fundamentally, to ensure they function as transport fuels. In the present paper we shall discuss two aspects of the TBTA. First, we shall consider briefly the features of goods pertinent to the foregoing discussion of biofuels as traded commodities under the GATT. Second, we explore in detail what the TBTA says about the process of establishing international agreements on, for example, standards.

It was argued above that the current debate on the nature of product likeness focuses on demand-side features. Paragraph 1 of Annex 1 to the TBTA (“Terms and their definitions for the purpose of this agreement”), however, defines a Technical Regulation as one “which lays down product characteristics or their related processes and production methods, with which compliance is mandatory”. This suggests a product’s PPMs have the same standing as the nature of the good itself. Furthermore, in several cases, such as Japan-Alcoholic Beverages and EC-Asbestos, “the physical characteristics of a good *are only one* consideration to the determination as to whether products are ‘like’.” Switzer (2007: 36-37, emphasis in original).

The Uruguay Round was negotiated as a Single Undertaking, a notion which applies also to the implementation of the various Agreements under the WTO. Relationships between Agreements are thus very important. It cannot be inferred that a policy referring to PPMs automatically complies with the GATT, as the latter uses no such

phrase. On the other hand, the Preamble to the TBTA makes clear the intention to further the objectives of the GATT; and to protect the environment and human, animal or plant life or health (repeating goals set out in the General Exemptions of GATT Article XX). Furthermore, it repeats a critical element from the chapeau to Article XX, demanding that measures are implemented in such a way as to avoid arbitrary or unjustifiable discrimination between countries; and to avoid hidden trade barriers (see also Article 2 of the TBTA, which additionally reinforces non-discrimination and national treatment).

From this, considering the GATT and TBTA together, along with relevant case law outlined earlier, we argue that whilst PPMs can be used to define product likeness, this cannot result in the core principles of the GATT, repeated explicitly in the TBTA, being reversed. In the TBTA, as the earlier quote shows, the relevant PPMs are those which are product-related. We do not consider further whether non-product related PPMs could be a basis for treating biofuels differently, depending on whether they embodied sustainability or not, as they too could not be used to defend a policy otherwise inconsistent with the GATT. We therefore turn to considering a key use of the TBTA which is additive to the GATT: it offers clear guidance on how to go about negotiating and drawing up agreements on technical regulations and standards. In short, GATT 1994 (reinforced by the TBTA) tells us what can and cannot be done with biofuels sustainability criteria; the TBTA provides additional guidance about how to establish those criteria. In what follows we also analyse, in the light of the TBTA, how a scheme can be set up that ensures biofuels production, in disparate countries worldwide, conforms with the sustainability criteria laid down by consuming countries?

Article 2.1 of the TBTA requires that “Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country”. The phrase “no less favourable” does not mean, however, that treatment must be identical (Howse et al, 2006: 24). Equivalence of effect means countries should cooperate and be open about detailed criteria (see below).

Switzer (2007: 37) argues, following the EC-biotech case, differential treatment can avoid falling foul of this aspect of law if "unfavourable treatment to imported products…can be explained by 'factors or circumstances' unrelated to origin…[Thus] a measure which differentiates between otherwise 'like' products on the basis of their GHG emission reduction levels may not necessarily result in a finding of less favourable treatment if the conduct can be explained by reasons unrelated to origin." That said, for the reasons set out above we argue that PPMs, product-related or not, would not allow for the differential treatment of biofuels based on GHG emissions reductions. Indeed, Paragraph I of Annex 3 to the TBTA requires that, "[w]herever appropriate, the standardizing body shall specify standards based on product requirements in terms of performance rather than design or descriptive characteristics", which brings us back to the demand-side features of biofuels addressed earlier.

As part of equivalence of effect, Charnowitz et al (2008: 28-29) note that sustainability reporting requirements must also respect MFN and Art III – and this applies to both production and consumption ends of the chain – which, in the context of international trade, of course refers to both the exporting and importing country. A concern that embraces national treatment and like products is the taxation regime in the importing/consuming country. Subject to products being defined as 'like', differential taxation may be permitted if it is facially neutral and does not give protection to domestic production (see Switzer, 2007: 37-38).

One important feature of the TBTA is that it seeks to promote the use of "international standards and conformity assessment systems" in the development of technical regulations and standards. Article 2.5 states that regulations introduced for a legitimate reason and which accord with international standards "shall be rebuttably presumed not to create an unnecessary obstacle to international trade." On the other hand where international standards do not exist, if the proposed standard differs from existing international standards, or if those existing standards "may have a significant effect on trade of other Members", not only can a Member proposed a standard itself, but the TBTA gives clear guidance as to how it should do so. Specifically, Article 2.9 details an open process which gives other Members opportunities to engage in the standard-setting process, whilst Article 2.12 requires that a reasonable period of time

be left between agreement and implementation of standards, to give exporting Members – especially developing countries – time to adapt to them. Article 2.9 does allow for the standards to be set prior for consultation, but only if an urgent situation means time is of the essence – and consultation must then occur "immediately". The TBTA even sets out a "Code of Good Practice" for standard-setting in Annex 3.

Thus the TBTA promotes the use of existing international standards, permits Members to establish new standards where appropriate international standards do not exist, and requires that process to be conducted in an open and multilateral way. This, to quote both the chapeau to GATT Article XX and the Preamble to the TBTA, should ensure that the agreed standard avoids "arbitrary or unjustifiable discrimination". Furthermore, if the (importing) country setting the standard has engaged with other Members fully and openly, the chances those same Members will then bring an action against those standards on the grounds of WTO-incompatibility are greatly reduced. Swinbank (2009: 499), referring to the AB ruling in the shrimp-turtle case argues, regarding EU sustainability criteria, that "the EU would need to show it has engaged in meaningful negotiations with its main suppliers to determine credible environmental sustainability criteria" – although that would only be needed if an action were brought; and our main point is that such a process reduces the changes of that happening in the first place,

From the perspective of the EU, Article 2.7 also includes an interesting feature: "Members shall give positive consideration to accepting as equivalent technical regulations of other Members, even if these regulations differ from their own, provided they are satisfied that these regulations adequately fulfil the objectives of their own regulations." This phrase is very similar to the EU principle of mutual recognition, a keystone of ensuring the free movement of goods and services within the SEM without requiring full harmonisation of national laws. Extended to the WTO, there remains much scope for variations in WTO members' legislation which can still deliver regulatory equivalence at lower (negotiating) cost. Moreover mutual recognition, as a basis for seeking free trade between nations, has significantly stronger legal underpinnings than the WTO DSP, yet any national differences between EU member states are still seen as not presenting a barrier to trade. This also re-emphasises the benefits from a multilateral approach to standards-setting.

Sustainability standards set, currently, by developed country importers, must then be respected by exporters, many of whom will be developing or emerging economies. Again, this refers to how something should be done as much as what it is to be done, therefore the TBTA is an important reference point. It has already been noted that the TBTA provides guidance over how standards should be determined – openly and collectively. Another key feature of the TBTA is that whilst the principal focus of the TBTA is the work of WTO Members (in particular "Central Government Bodies"; see Article 2), there is explicit scope for non-governmental organisation (NGO) involvement in standard-setting.

With biofuels, relevant NGOs working on standards and certification include the feedstock-specific Better Sugarcane Initiative (BSI), the Roundtable on Sustainable Palm Oil (RSPO) and the Roundtable on Responsible Soy Association (RTRS), whilst there is also a Roundtable on Sustainable Biofuel (RSB) which covers all feedstocks used for biodiesel and bioethanol. The TBTA, first, makes explicit reference to the active role NGOs can play in this process. Second, these NGOs operate in an open and transparent manner consistent with the principles underpinning the TBTA Moreover, these representative bodies include (non-governmental) representation from all the relevant producing countries, thus ensuring breadth of participation. They also ensure a direct process link between NGOs and WTO Members (for a wider discussion on these links see, *inter alia*, Tallontire and Blowfield, 2000; Bernstein and Hannah, 2008; Brassett *et al*, 2010).

This is exemplified by the BSI, whose current Production Standard is being assessed by the European Commission to determine compliance with EU standards. The general BSI Standard contains five core principles, sub-divided into multiple indicators. For the "BSI EU", a sixth category has been added which addresses additional EU-specific concerns: "To monitor global warming emissions with a view to minimizing climate change impacts", and "to protect land with high biodiversity value, land with high carbon stock and peatlands". A final point, noted here but not developed further in the present paper, concerns direct enforcement costs and indirect transaction costs. By having producers in different countries represented on the Roundtables, there is both a direct link from the representatives back to farmers, and

an implicit commitment to the principle of certifiable sustainability criteria, that can help ensure greater compliance, at lower cost, than having standards set and enforced by distant governments.

**Evidence on the Negotiation and Implementation of Sustainability Standards**

In this section, we consider some aspects of sustainability criteria in the context of the foregoing. For example, is there any evidence that sustainability criteria have been designed explicitly with WTO concerns in mind? Have international fora been used to develop or promote sustainability criteria? Interviews conducted as part of our ongoing research indicate that aspects of EU criteria have been designed with WTO concerns in mind. Some authors (notably Charnowitz *et al*, 2008) have argued that labour standards can be designed and implemented in ways consistent with WTO rules. On the other hand, EU legislation (both the Renewable Energy Directive and the Fuel Quality Directive) exclude labour/social standards from compulsory implementation [***double-check the Articles for the proper wording here***], because whilst it was recognised that, in theory, such rules could be drawn up to be WTO-consistent, it was felt that such rules would step over some peoples' red lines and thus would almost certainly trigger an action. A successful defence could not be guaranteed and, moreover, such an action could threaten the entire structure of sustainability criteria. Instead, reporting requirements on such standards should enable examples of good practice to be highlighted, without mandatory reporting resulting in violations falling foul of WTO criteria.

The EU sustainability criteria have, in a number of ways, been designed explicitly with WTO rules in mind. They were negotiated in a way which allowed for the input of other countries (although this should not be taken to imply all concerns were taken fully into account); the rules on implementation and reporting apply equally to all biofuels, regardless of source; the criteria draw a sharp distinction between those elements which are compulsory and, in the case of labour/social rules, those which are not; and a range of international agreements are drawn upon, with respect to both the compulsory and voluntary reporting components of the criteria. Moreover, EU rules prevent member states adding further criteria, which will ensure that if the EU criteria are WTO-compatible, they will remain so when implemented by the member states (see Swinbank, 2009). Also, member states must produce National Action Plans to

show how they will deliver on the sustainability criteria (Switzer and McMahon, 2010: 6), which provides a checkpoint to ensure conformity of national implementing plans with EU and WTO rules.

On the other hand, key concepts in the EU criteria were put in place without clear definitions having been agreed (for example 'highly biodiverse grassland); and whilst the default values for GHG emissions savings from different feedstocks published in the RED can be replaced with actual values, it may be both difficult and costly for developing countries in particular to do so. A further problem – of which the EU standards are only one contributory part – is the global proliferation of sustainability standards (Desplechin, 2010). Standards which are incompatible can create uncertainty and inhibit investment and trade. Such concerns can be understood as further support for collective, multilateral, negotiation. Mutual recognition of standards has advantages, but the equivalence of different standards and rules may be difficult and costly to determine.

There have, in the latter part of 2010, been very interesting developments as regards to certification of palm oil production by the Roundtable on Sustainable Palm Oil (RSPO). First, Unilever announced a plan to obtain all of its palm oil from plantations certified by the Roundtable on Sustainable Palm Oil (RSPO) within five years. Second, the Dutch government has presented a manifesto, signed by all the suppliers and purchasers of palm oil to trade only RSPO-certified palm oil in The Netherlands by 2015. Agreements such as this are important markers for such schemes, as it indicates they are capable of 'passing' important market tests of commercial relevance and applicability. In so doing, this renders moot issues surrounding the expression of consumers' preferences, as suppliers see commercial gain from making this switch; whilst consumers are unlikely to argue that the inability to buy palm oil products produced unsustainably has impaired their freedom of choice. It should, however, be recognised that both campaign groups and RSPO members acknowledge their certification scheme cannot yet be taken as a cast-iron guarantee of sustainability of source. It is, however, an important step towards sustainable production.

As a footnote to this, Annex I of the TBTA confirms that "This Agreement deals only with technical regulations, standards and conformity assessment procedures related to

products or processes and production methods. Standards as defined by ISO/IEC Guide 2 may be mandatory or voluntary. For the purpose of this Agreement standards are defined as voluntary and technical regulations as mandatory documents. Standards prepared by the international standardization community are based on consensus. This Agreement covers also documents that are not based on consensus." This distinction is potentially important as voluntary schemes do not have to be notified to the WTO. This explains why, for example, the Brazilian government is taking a hands-off approach to such schemes, but monitors them very carefully to ensure WTO rules are not violated in their implementation.

Ultimately, the TBTA would permits regulation under the banner of sustainability (as a different example, Australian biosecurity rules have some kind of sustainability element in them) but no one is absolutely certain, given the plethora of different standards being developed, how much and of what type of standard is permitted, combined with a lack of clarity from the WTO given the limited case law in this area. One observation from de Vera (2008: 674), is that, "it is critical to note that no WTO Panel or Appellate Body has explicitly permitted coercive embargoes." It is possible that sustainability criteria are WTO-compatible (for example on embargoes, neither EU nor US rules prevent the import of biofuels produced unsustainably; it is simply that such biofuels would not count towards blenders' or countries' usage or GHG emissions-reductions targets). Such compatibility cannot be taken from granted, but must be worked on from the outset, however. Ultimately, one can argue that a lack of legal clarity caused by a lack of case law is a good thing, if it means that WTO Members have had no reason to bring actions against each other; a situation that is more like if trading partners, Member governments and NGOs are part of the policy design and implementation process at all stages.

**Conclusions**

A key motivation for biofuels production sustainability criteria is to ensure that biofuels, which are being produced and consumed in ever-rising quantities produce clear environmental benefits, especially in terms of GHG emissions reductions, compared with the fossil-fuel based transport fuels they are, in part, replacing. Questions have been raised about the WTO-compatibility of these schemes. In this paper we argue that the plethora of WTO rules apply to biofuels as they apply to any

traded commodity. This leads to a number of key points regarding biofuels and the policies that can, or cannot, be adopted based on how 'sustainable' their production is.

First, we consider it highly unlikely that biofuels can be declared 'unlike', depending on whether they were produced sustainably or not. This means that GATT Article III applies to all resulting policies addressing biofuels sustainability; A WTO Member cannot apply trade barriers which discriminate overtly against unsustainable biofuels. It can further be concluded from this that a product's Processing and Production Methods (PPMs) are unlikely to be considered relevant for defining product likeness; and that this applies both to product-related PPMS and, *a fortiori*, to non-product related PPMs.

Second, If Article III applies to biofuels, then if a WTO Member does seek to treat biofuels differently, based on the sustainability of their production, Article XXb or, in the context of cross-border considerations, XXg would be the relevant reference-point for a general exemption. This must, however, be applied in accordance with the principles of national treatment and non-discrimination. Furthermore, under Article XX no measure could represent "arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on trade".

Third, in the context of the WTO Agreements representing a Single Undertaking, we have argued that whilst the GATT sets out what can and must not be done, the TBTA offers clear guidance on how to do it. Specifically, one goal of the TBTA is "to further the objectives of GATT 1994"; whilst the use of common language and terms identifies areas where the TBTA complements the GATT and thus further the objectives of the latter. Specifically, the TBTA provides guidance about how to avoid measures which are, or could be deemed, arbitrary and unjustifiable. Key features of the TBTA are that imports and domestic production must be treated in an equivalent fashion (but not necessarily in an identical manner); that the process of drawing up standards should, where possible, draw on existing international standards and agreements or, if that is not possible or appropriate, involve other countries openly and actively in the drawing up and implementation of a new set of standards. Not only does this approach respect explicit TBTA provisions; in practical terms it makes it

less likely one of those participating Members will subsequently bring an action via the WTO Dispute Settlement Understanding.

We have argued that there is clear evidence that EU and US standards reflect some of these goals, both in their preparation and implementation. Furthermore, there is clear evidence that multilateral bodies, such as the RSPO and BSI, have prepared producer certification systems to comply with importing countries' sustainability standards, with the latter's "BSI EU" standard being considered by the European Commission for its compatibility with the EU sustainability standard. In the case of the RSPO, a further boost has come, first, from Unilever pursuing a goal of purchasing only RSPO-certified palm oil; and, second, a goal coordinated by the Dutch government to make all palm oil and related products on the Dutch market from RSPO-certified sources, also by 2015. That said, some exporting countries continue to monitor closely the implementation of sustainability criteria by importing countries, to ensure continued conformity with WTO rules.

Ultimately it is not that there are good or bad biofuels but, rather biofuels either done well or done badly. In a new and evolving policy area such as this, the meaning and understanding of these key concepts will also evolve; indeed, the TBTA recognises the non-stationary nature of policy when it makes clear that standard-setting must (but also can only) take account of *available* scientific and technical information (Article 2.2, emphasis added). The dynamic nature of both policy and its context should also, therefore, be reflected in the interpretation and monitoring of sustainability criteria in the context of WTO compliance.

In a recent speech to the 2010 World Energy Congress, Pascal Lamy (Lamy, 2010) picked up the Congress's theme of the Three A's – Access, Availability and ***Acceptability*** (my emphasis). He also spoke of a "more sophisticated WTO rule-book". In the context of a successful conclusion to the Doha Development Agenda, the draft text of which includes a call for the liberalisation of environmental goods and services (EGS), Lamy's speech reflects a pattern discernible in some of the cases already discussed. Specifically, there are ongoing efforts to incorporate both environmental goods and environmental concerns more fully and explicitly into the WTO Agreements. The need to ensure the WTO-compatibility of biofuels-related

policies will only grow. It is important to accept that the general rules and precepts of the WTO apply to such goods; and that those rules not only tell policy-makers what to do, or not, but also give guidance on how to make WTO-consistent policies.

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