Promoting Sustainable Bioenergy Production and Trade



Biofuels Certification and the Law of the World Trade Organization

By Professor Marsha A. Echols

ICTSD Global Platform on Climate Change, Trade Policies and Sustainable Energy

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ICTSD welcomes feedback and comments on this document. These can be forwarded to Marie Chamay Peyramayou, mchamay@ictsd.ch.

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This paper is intended as general guidance. It must not be considered as legal advice from Professor Echols or ICTSD concerning biofuels certification or WTO law.

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ABBREVIATIONS AND ACRONYMS

AB	Appellate Body
ACP	African, Caribbean and Pacific
AoA	Agreement on Agriculture
CAFE	Corporate Average Fuel Economy
EBA	Everything But Arms
EC	European Commission
EPA	Environmental Protection Agency
ETBE	ethyl tertiary butyl ether
EU	European Union
FAO	Food and Agriculture Organization
GATT	General Agreement on Tariffs and Trade
GHG	greenhouse gas
GSP	Generalized System of Preferences
HS	Harmonized Tariff System
ISO	International Organization for Standardization
MFN	most-favoured nation
NBB	National Biodiesels Board
OECD	Organisation for Economic Co-operation and Development
PPM	process and production method
R&D	research and development
RTF	Renewable Transport Fuels
SCM Agreement	Agreement on Subsidies and Countervailing Measures
SPS Agreement	Agreement on the Application of Sanitary and Phytosanitary Measures
TBT Agreement	Agreement on Technical Barriers to Trade
UK	United Kingdom of Great Britain and Northern Ireland
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
USDA	United States Department of Agriculture
WHO	World Health Organization
WTO	World Trade Organization

FOREWORD

To produce, trade on or use agricultural products as fuel —a practice as old as human history— has become a policy riddle spawning emotional debate and multiple, sometimes competing and conflicting, measures and actions. Today, many see fuel derivatives from agricultural produce and forests as a new frontier in energy supply. In a context of action against climate change, the carbon emissions efficiency of some energy crops has emerged as a promising powerful option to the use of fossil fuels; against a backdrop of energy scarcity, particularly in cash-dry economies, excitement on the prospect of producing cheap fuels from un-edible crops at large scale seems unarguable. Especially if crops are grown in marginal lands, if new policies both at home and abroad are generating fresh capital and investment flows, and if, on top, energy resulting may match otherwise unattended demand and neglected populations.

A promissory outlook, except that at this very time, successfully steering action on agro-fuels as a tactic in combating climate change, or as energy or developmental strategy, is complicated by critical factors; primarily, a lack of consensus on how to deal with the emerging flows of trade and investment and the ensuing trade-offs in the allocation of implicated resources, from land, to work force, to capital. Compounding the issue are ill-equipped existing regulatory frameworks at both domestic and international levels. And, equally crippling is perceived deficiency in science and metrics to demonstrate effects. Not insignificant is also the realization that with current technologies limitations of scale render the whole idea less attractive or, at best, relegate its relevance to a reduced niche use.

Yet, OECD countries and most major demandeurs of energy for transport or otherwise, have in the past few years adopted policies and measures that have spurred enormous demand and stimulated investment in production and growth. Evidence also shows that these policies have created or significantly and rapidly expanded trade flows and production at home and abroad; in particular measures introducing mandates of agro fuel use in the mix of liquid fuel for transportation or the energy grid. Activity on technological development has also surged in recent years in response to prospects and stimuli; indeed, high expectation on an eventual technological fix to the shortcomings of existing possibilities for ethanol and bio-diesel, specifically in the use of biotechnology in the conversion of cellulose fibres into energy, has served in contradictory ways as both incentive or deterrent for further development of existing feedstock. The fact is that given that energy crops are based on the basic conversion of sunlight into energy by means of plants, natural comparative advantages rest for the moment in tropical crops; a key factor determining the current geography of production and trade. However, technological applications at advanced stages of development may very soon alter all this and with it, the accompanying political economy orbiting policy-making.

Net gains and losses from use of biomass as energy are hard to estimate, particularly in a long-term assessment. Odds for a future of improved energy efficiency, lower carbon emissions, reasonable and sustainable use of lands for the production of food, fiber, forests or fuel, and larger developmental and social gains, maybe enhanced or doomed by options on policy chosen now; specially those aiming at long term targets and behavioural changes, as well as those concerning regulatory frameworks in the form of international rules that limit and lock-in our possibilities.

It is in this context that ICTSD has decided in the past two years to engage in policy dialogue, research and analysis and problem-solving activity that contribute to societies' very pressing and real need to come to grips to the reality of energy crops. We do so, conscious of the dynamism of the policy environment, together with the intended and unintended consequences of policy development; the actual impact of decisions on use of resources in the daily lives of communities and individuals, even

if on trial or temporarily terms, and the need to find solutions from the policy perspective that are durable and supportive of the sustainable aspirations of societies and global welfare.

The paper you're holding has been authored by Professor Marsha A. Echols, the Director of the Graduate Program and of The World Food Law Institute at Howard University School of Law in Washington DC, and commissioned under the Global Platform on Climate Change, Trade Policies and Sustainable Energy. This report places biofuels certification in an international trade context. It assesses certification through the World Trade Organization (WTO) lens and develops the requirements for trade compliance. Governments employ certification to assess whether there has been compliance with a variety of standards and incentives related to their encouragement of the switch to biofuels from fossil fuels. A frequent standard requires the mixing of gasoline with biofuels. The certification process likely would be a means of determining conformity with the standard. The party receiving a certification might be given special tax relief, the ability to sell to the government and a positive label, for example. To maintain the certification, the party might undergo periodic audits and verifications.

To create a biofuels certification programme and a related conformity procedure that comply with the rules of the WTO, it is important to bear in mind that the General Agreement on Tariffs and Trade (GATT) and the WTO agreements are cumulative. All must be taken into account, including GATT Articles I and III or XX, the Agreement on Technical Barriers to Trade (TBT), and the reports of the WTO Appellate Body (AB). The WTO texts and reports of the AB point to the specific factors and approaches that, together, are likely to satisfy international trade law. These paths to compliance are manageable if the factors spelled out in the rules are followed. This report includes the issues, steps and unsettled areas that must be faced by regulators planning a biofuels-certification programme.

There are non-WTO approaches to creating a viable biofuels programme that take advantage of the opportunities, for example for international harmonization, equivalence or mutual recognition, multilateral agreements or a GATT waiver.

The governmental role in certification is the sole focus of this paper, although noteworthy private certification programmes exist.

The ICTSD teams involved in these fascinating issues and myself, very much hope that this paper is of interest and, indeed, a contribution to the current debate and the definition of policy options.

Thank you,

Ricardo Meléndez-Ortiz
Chief Executive, ICTSD

EXECUTIVE SUMMARY

The goals of achieving energy security and of attenuating climate change for environmental or health reasons are policy ends that propel biofuels policies in many countries. Some others view the interest in biofuels as an opportunity to develop a local industry and to provide assistance for that development. All these are ends that are within the realm of policies acceptable under the rules of the World Trade Organization (WTO). A WTO Member may determine its national environmental and public health objectives and its domestic level of protection "through the measure or the policy it chooses to adopt".[1]

A certification programme could require proof that the social goal was met, for example that fair wages were paid or that harmful pesticides were not used. If the supplier cannot prove compliance, then the importing government could refuse to issue a certification and prohibit the biofuels imports, impose higher tariffs or taxes, restrict distribution or require special labelling. On the other hand, the successful applicant for certification would receive some reward. Each of those measures would be judged at least under Articles I, III and XX(g) of the General Agreement on Tariffs and Trade (GATT), as well as the Technical Barriers to Trade (TBT) Agreement. The TBT Agreement would judge whether the certification process was fair. If the supplier proves compliance, then the importing government could issue a certification and also offer favourable tariffs or taxes, preferred distribution avenues and favourable labelling, among many other possibilities.

Regulators must decide the underlying goals and criteria of the certification, as well as what and who will be certified. The compatibility of a biofuels-certification measure with international trade rules is determined from several perspectives. These decisions determine whether the non-discrimination rules of Article I or Article III of GATT apply and, if there is prohibited discrimination, whether it is excused by the health or environmental carve-outs of GATT Article XX (among other possible exceptions). The decisions also determine whether the detailed substantive and procedural rules of other WTO agreements apply:

- Non-tariff measures (TBT Agreement)
- Health and safety (Agreement on the Application of Sanitary and Phytosanitary Measures (SPS))
- Subsidies (Agreement on Agriculture (AoA) and Agreement on Subsidies and Countervailing Measures (SCM)) (see the related papers in this series for a discussion of WTO subsidies rules)
- Government procurement (Plurilateral Agreement on Government Procurement)
- Tariff rates (GATT Article II and the national schedules).

The certification process is as important as the biofuels policy. The process must be implemented consistently with a growing body of directly or indirectly helpful WTO case law, including *Asbestos, Beef Hormones, Geographical Indications* and *Tyres*. If certification is used to determine or indicate conformity with certain criteria, an approved production method or an approved source, then at least both GATT Article III and the TBT Agreement probably apply. Seen in this light, a biofuels certification is often a "conformity assessment procedure".

If the certification is used to determine conformity with a process or production method (PPM), then the tendency is to judge the approach more carefully. PPMs are considered as shields for protectionism. Usually regulators must try to protect the measures under an Article XX exception to the WTO rules, as has occurred in several environmental disputes such as *Beef Hormones, Gasoline, Shrimp/Turtles* and *Tuna/Dolphin*. There has been mixed success.

The procedure of certification (e.g. testing, approval, labelling) must be considered, given the detailed rules of the TBT Agreement. If a local government is considering biofuels certification, there are some different (not fully clarified) rules. It is unlikely that these trade rules would constrain local governments, although the result may vary somewhat under the various WTO agreements.

Finally, when a measure or its application might be incompatible with a WTO rule, a government might benefit from an exception. Of course, given that a main reason for the focus on biofuels is the desire to limit global warming and climate change, the possible exceptions under Article XX of the GATT 1994 are relevant, including those concerning the protection of the environment and public health. The introductory text or "chapeau" of Article XX and language stating that the measure must be "necessary" to achieve the policy must be remembered.

In addition to the Article XX health and environment exceptions, there might be other avenues for justifying certification programmes, such as Article XX(h) agreements, Article XXV waivers, international harmonization under the TBT or SPS agreements, generalized systems of preference, and bilateral or regional agreements. A more difficult approach could be to equate energy security with Article XXI national security.

This report assesses under what circumstances a biofuels-certification programme might be WTO-compatible. Part I describes biofuels policies. They provide a starting point for any analysis of the trade legitimacy of a biofuels programme. Part 2 introduces two basic rules of WTO law – most-favoured-nation (MFN) treatment and national treatment. Like the biofuels policy, these two rules are a starting point for understanding what to, and especially what not to, include in a biofuels-certification programme. Part 3 of the report considers why governments choose to certify.

The following parts of the report concern the details of a certification programme: Parts 4 and 5 address what to certify from the product and process perspective, respectively. The choice of which products to cover and which to exclude from possible certification should be made so as to meet "like product" considerations under GATT Article III and the TBT Agreement. If the certification programme concerns a preferred or disfavoured PPM, then the TBT Agreement is the likely WTO framework.

Certification is a document-based process. Part 6 concerns the most used categories of documents: technical regulations and standards as they are covered by the TBT Agreement. The related procedures – conformity assessment procedures – are considered in Part 7. Once certified, there are many possible benefits or rewards, as described in Part 8. In spite of the careful development of a biofuels policy and certification procedure, the certification programme might not meet the WTO requirements. Part 9 explores possibilities for using the Article XX exceptions when the scheme does not conform to the WTO.

Parts 10 and 11 point to two special considerations. Part 10 highlights the role of local governments and explains the need for a central government to monitor and oversee the biofuels policies of local governments. Part 11 offers other approaches to biofuels certification, including through international agreements and harmonization. The conclusions are in Part 12.

1. THE BIOFUELS POLICY

Biofuels policies serve one or more important objectives. Regulators must have a rational, well-defined, well-supported basis for the biofuels policy. That policy will be a foundation on which the certification programme and procedures will be judged. It will also be a determinant of which WTO rules apply.

A primary policy objective often is energy security, with biofuels being the most readily available substitute for transport fuels. Climate change mitigation is another objective, as are rural development and the diversification of agricultural production in the European Union's (EU) renewable energy policy (EC 2007a). The EU renewable energy policy includes the goal of making biofuels 10 percent of vehicle fuels by 2020. National security may also be a consideration, since biofuels can be produced from local crops, diminishing the reliance on imported petroleum. Rural development may be a positive consequence of a biofuels policy in both developed and developing countries. As noted by the Food and Agriculture Organization (FAO), "Supporting the farm sector and farm incomes has been a key – if not the most important – driving factor behind biofuel policies in several developed countries" (FAO 2008a). The Cramer Commission (2007) report describes many desired social and environmental benefits of an increase in biofuels.

> ...an increasing number of developing countries also claim rural development – along with energy security – objectives for their biofuel policies. In countries with heavily subsidized farm sectors, the revitalization of agriculture through its role as provider of bioenergy feedstocks has been widely viewed as a solution to the twin problems of oversupply of agricultural produce and declining global market opportunities (FAO 2008a).

2. BIOFUELS CERTIFICATION UNDER THE RULES OF THE WTO

A starting point is to fit the certification programme, its specific measures and its underlying goal into the WTO analytical framework. A proposed biofuels-certification programme must be examined under several articles of the GATT, including Articles I, III and XX. These GATT rules must be considered along with other WTO agreements, such as the TBT and SPS agreements. In addition, when there is government support, the AoA and the SCM Agreement are important considerations. Finally, the Agreement on Government Procurement could apply. Many of the applicable rules have been interpreted by a panel or the Appellate Body (AB), and so it is possible to determine the steps to be taken by a regulator who wants to design a certification programme that conforms to WTO constraints.

2.1 When the Biofuels Policy/Certification Distinguishes Among Suppliers: Article I – Most-Favoured-Nation Treatment

Article I of the GATT requires that the MFN treatment be granted to products from all WTO Members. It has been the most important non-discrimination rule. MFN requires non-discrimination among like products from different WTO exporting sources concerning duties, charges and other measures:

> ...any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties. (GATT 1947, Article III)

Article I:1 plainly imposes upon WTO Members the obligation to treat "like products... equally, irrespective of their origin". The MFN rule directs how the importing government must treat biofuels from Malaysia and Brazil, for example.

2.2 When the Biofuels Policy/Certification Distinguishes Among Types of Biofuel: Article III – National Treatment

Article III – national treatment – is the other basic non-discrimination rule. It prohibits the use of non-tariff measures "so as to afford protection to domestic production". The broad and fundamental purpose of Article III is to avoid protectionism in the application of internal tax and regulatory measures. Its focus is competition between "like" imported and domestic products within the importing territory, "like domestic products" in Article III:2 (taxes) and "like products of national origin" in Article III:4 (regulations). A general principle of fairness is contained in Article III:1 and influences the two subsections regulating the use of internal taxes and internal regulations. For a measure to conform to Article III, regulators must consider the specifics of the tax and regulatory constraints in Article III, as well as the measure's general purpose.[2]

The regulations that affect competition between Brazilian ethanol and local corn- or rapeseed-based ethanol could raise questions about whether they are "like" and whether the rules help (protect) the local products. Article III is not to "prevent contracting parties from differentiating between different product categories for policy purposes unrelated to the protection of domestic production". National treatment applies to, among other measures, taxes, other internal charges, and "laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions".

In addition, regulators should determine whether there is a multilateral model for the policy or the procedure. The TBT Agreement, like the SPS Agreement, favours harmonization. The TBT text does not name specific standardizing bodies, referring instead to "international standardizing bodies", which could include the non-governmental International Organization for Standardization (ISO):

> ...where a positive assurance is required that products conform with technical regulations or standards, and relevant guides or recommendations issued by international standardizing bodies exist or their completion is imminent, Members shall ensure that central government bodies use them, or the relevant parts of them, as a basis for their conformity assessment procedures... (TBT Agreement, Article 5.4)

If the procedure is inappropriate for the Member concerned (e.g. for the protection of the environment, fundamental climatic or other geographical factors), then it may employ a different procedure. If there is no such international standard, and if the conformity assessment procedure may have a significant effect on the trade of other Members, then Members must use certain procedures such as notice publication.

2.2.1 General principle

The concern about whether there is an interference with the competitive relationship between domestic and imported biofuels is in keeping with the general principle of Article III:1:

> The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products *so as to afford protection to domestic production* [author's italics].

The "general principle" in Article III:1 "informs" the rest of Article III and acts "as a guide to understanding and interpreting the specific obligations contained" in the other paragraphs of Article III. The "general principle" is expressed in Article III:4 through a single obligation that applies solely to "like products" and in Article III:2 through two distinct obligations. The scope of "like" in Article III:2 and the possibility for competition is broader regarding internal taxation than regarding domestic regulation, given the cross-reference to Article III:1 and the reference to like and to "directly competitive or substitutable" products. "[T]he product scope of Article III:4, although broader than the first sentence of Article III:2, is certainly not broader than the combined product scope of the two sentences of Article III:2 of the GATT 1994" (WTO 2001a, Paras 84 and 96).

Article III:1 refers to local government taxation and recognizes some flexibility.[3]

2.2.2 The like product issue

In designing a programme for biofuels certification, it is essential to consider carefully which products are subject to or affected by the programme and whether they are "like" and in competition in the marketplace. Whether corn- and sugar-based ethanol are like, and any determination of likeness, are evaluated case by case. The evaluation by regulators determines whether one or both products can be certified to receive a subsidy or specific excise tax treatment. The AB has explained that "In each of the provisions where the term 'like products' is used, the term must be interpreted in light of the context, and of the object and purpose, of the provision at issue, and of the object and purpose of the covered agreement in which the provision appears."

According to the AB, four basic factors must be considered, along with any other relevant factors, in determining whether two products are like. The four factors are physical characteristics, consumer taste and habits, end uses and tariff treatment.

The design and defence of the like product conclusions by a government might emphasize certain of the elements and de-emphasize others. For example, evolving consumer tastes (commercial or retail) for one type of biofuel over another might outweigh the identical tariff treatment of the two products. Some results from the post-Kyoto discussions or a United Nations (UN) report about the harmful environmental effects of one biofuel versus another might be used to strengthen an argument that two products are not like or that the findings influence consumer taste, as occurred in *Asbestos*.[4] The differing end uses might be emphasized to illustrate that the products are not in competition. The specific (scientific) descriptions of the products – perhaps resulting from the different feedstock – might be significant in arguing that two products are not like. For example, the 10 percent of grey energy in a unit of Brazilian biofuel is much less than the estimated 60 per cent in sugar-beet-based biofuels. In another comparison, when compared with gasoline, bioethanol reduces greenhouse gas (GHG) emissions by up to 85 percent (Frei et al. 2006). An open question is the weight to be given to biofuels from distinct plant materials, such as maize versus sugar.

The underlying policy, as well as the product distinctions, must be justified. The positive environmental effects might be challenged. Some reports question whether the promotion of biofuels over fossil fuels truly has the effects on climate change and on carbon footprints stated by many environmentalists. In a 2008 report, the International Energy Agency concluded that most analyses continue to indicate that first-generation biofuels show a net benefit in terms of reduction of GHG emissions and energy balance; however, they also have several drawbacks, including limited GHG reduction benefits (with the exception of sugarcane ethanol) and at relatively high costs in terms of $/tonne of carbon dioxide ($/t$CO_2$) avoided. The report also states that first-generation biofuels do not meet their claimed environmental benefits because the biomass feedstock may not always be produced sustainably. It claims that they are an expensive option for energy security, taking into account total production costs excluding government grants and subsidies (International Energy Agency 2008).

3. WHY CERTIFY?

After deciding on the biofuels policy, regulators must identify the measures to be used. They might include tax incentives, support for research, tariff measures and other features. Specific criteria must be met to qualify for each. The criteria might address, for example, the type of biofuel, a characteristic of biofuel or a production process. Certification is one means of judging compliance with those criteria: it is the act of certifying, as well as the state of being certified (Stein 1988). Another definition, which seems more appropriate to private-sector certification than to government programmes, although United States (US) government agencies such as the Environmental Protection Agency (EPA) are relying more on third-party certifiers, states that certification "refers to the issuing of written assurance (the certificate) by an independent, external body – a certification body – that has audited an organization's management system and verified that it conforms specifically to the standard" (Woods and Diaz-Chavez 2007).

The application of the certification scheme is separate from the biofuels policy and, although probably encompassed within Article III, is tied more closely to the rules about conformity assessment found in the TBT Agreement. The underlying rationale will influence how the certification is categorized under the rules of the WTO and the path to compliance with those rules.

The process of being certified involves the applicant proving that it meets the policy objectives, as detailed through the criteria. Documentation, analyses, audits and other supporting information are usual. Woods and Diaz-Chavez (2007) describe the issues normally addressed as principles (general tenets of sustainable production), criteria (conditions that must be met to achieve those tenets and that "define the indicators to be answered") and indicators (the questions that show how the applicant proves that a criterion has been met).[5] The UN Conference on Trade and Development (UNCTAD) agrees that principles, criteria and indicators are involved but combines indicators with verifiers and adds reporting (Zarrilli and Burnett 2008).

4. WHAT TO CERTIFY: PRODUCT CHARACTERIZATION ISSUES

What regulators want certified will depend, in part, on the policy objective. At the simplest level, the regulation asks only for a certification that the documentation provided is truthful and complete. Another low-key procedure is to adopt a voluntary process, under which the supplier may be certified for limited benefits unless it qualifies under the mandatory criteria. Another possibility is to demand certification about the type of biofuel supplied or a characteristic of the biofuel. Alternatively, the regulator may decide to certify only if the biofuel meets a product standard.

Either of these choices presents standard trade issues: Are the biofuels at issue "like"? Is there discrimination among the biofuels or between suppliers? Are the procedures open and fair? On the other hand, regulators may decide to certify only if the product or supplier conforms to a process, such as a particular production process. This is the PPM issue, which triggers some additional WTO considerations. It also suffers from a predisposition to believe that a PPM is protectionist.

4.1 Certification by Type of Biofuel

Among the pivotal issues for developing a biofuels-certification programme and for judging that policy under the WTO rules is the decision about the product(s) that will be covered by and excluded from certification. The decision is complex because there are several categories and subcategories of biofuels with many potential end uses and effects, as well as competition and cross-usage with fossil fuels. All these types and characterizations have implications for the WTO's MFN and national treatment rules (and their like product analysis). Since the biofuels certification usually takes the form of a regulation or law, it must meet the requirements in particular of GATT Article III and the TBT Agreement, at least.

Biofuels may be defined simply as "liquid or gaseous fuel for transport produced from biomass" (EC 2006a). Biomass describes the raw material for the biofuel, which may be agriculture-, forestry- or waste-based.[6] In its 2005 Bioenergy Program, the USA defined biomass; it then revised its focus in the Energy Independence and Security Act of 2007, whose Renewable Fuel Standard called for transportation fuel sold or introduced into US commerce, on an annual average basis, to contain at least the applicable volume of new categories: renewable fuel, advanced biofuel, cellulosic biofuel and biomass-based diesel.[7]

Biofuels can be categorized by their source, type or characteristics, as well as by their energy security or environmental impact. A regulator – for policy reasons – might prefer or might refuse to certify products from a source deemed environmentally harmful. For example, in Switzerland, biofuels from palm oil, soya and grains cannot qualify for the biofuels tax exemption (GSI 2008).

4.1.1 Types

There are three main types of biofuel: solid, gaseous and liquid. Most international trade is conducted in liquid biofuels, the principal ones being ethanol and biodiesel. In addition to the distinctions among biofuels, regulators should always be mindful that some producers are likely to argue that different treatment of traditional fossil fuels and biofuels is not justifiable because they are "like".

Ethanol is produced from sugar or starchy crops, primarily maize. Bioethanol is produced for biofuel use from biomass or the biodegradable fraction of waste (EC 2006a). The biomass is fermented directly to ethanol in the simplest way of producing ethanol, as used by Brazil (FAO 2008a).

Biodiesel is produced from oil crops. It is a methyl ester produced from vegetable oil,

animal oil, recycled fats and diesel-quality oils (EC 2006a). Rapeseed is the primary source in Europe, soybeans in Brazil and the USA, and palm, coconut and jatropha oils in tropical climates (FAO 2008a). The process involves combining vegetable oil or animal fat with an alcohol and a catalyst.

4.1.2 Characteristics

The products also vary by their yields of biofuel per hectare, energy balance and GHG emission reductions according to the feedstock used, geographical location and technology used.

In the communication *An EU Strategy for Biofuels*, the EC said that it will "encourage Member States to give favourable treatment to second-generation biofuels in biofuels obligations" (EC 2006a). The same document mentions possible legislation to allow ethanol to replace methanol in biodiesel production. Moreover, suppliers of competing products, such as fossil fuels, may claim that an unacceptable distinction has been made.

Another means of differentiating products is to distinguish between primary (commodity feedstock) and secondary (processed) biofuels, the latter category including ethanol and biodiesel. The secondary products have a wider range of uses, including transportation and high-temperature industrial processes. The *Strategy* document mentions the possibility of creating separate nomenclature codes for biofuels, thereby supplementing tariff code 2207 (EC 2006a).

Another possible difference in characteristics could be targeted: Some biofuels make greater contributions to energy efficiency than do others, depending on the energy content of the biofuel and on the energy required to cultivate and harvest the feedstock, to process the feedstock into biofuel and to transport the feedstock and the resulting biofuel. The International Energy Agency (2008) raises questions about first-generation biofuels, stating that they contribute to higher food prices due to competition with food crops, are accelerating deforestation, potentially have a negative impact on biodiversity, and compete for scarce water resources in some regions.

4.1.3 Source

Biofuels originate from forest, agricultural and fishery products, municipal wastes, and agro-industry, food industry and food service by-products and wastes. Biofuels from a preferred source might qualify for a benefit that is not available to other products. Domestic support is usually given to locally produced feedstock, but other benefits might be given to any supplier of a particularly desirable biofuel, such as those made from grasses. The type of biomass permitted and supported by a government has significant trade consequences. There are issues of crop and geographical source, with Brazil producing ethanol from sugarcane, but the EU and the USA relying principally on maize (FAO 2008a) and other possible crop sources such as cassava, rice, sweet sorghum, sugar beets and wheat. National legislation often defines biomass in order to indicate which products will qualify for support. Those that do not qualify often claim discrimination. MFN issues might arise when a rice-based imported biofuel is treated differently from a sugar-based imported biofuel, for example when the tariffs for the two differ. National treatment issues might exist when a palm-based imported biofuel pays a different excise or sales tax than a corn-based local biofuel.

4.2 Certification by Product Type or Source: Like Product Factors

For product-based biofuels certification, it is essential to conduct a thorough like product analysis to determine whether the product characterizations, inclusions, exclusions and differentiations are justifiable.

The AB continues to rely on the Report of the Working Party on Border Tax Adjustments for the framework of a like product analysis. There are four general criteria: (1) the properties, nature and quality of the products; (2) the end uses of the products; (3) consumers' tastes and habits – more comprehensively termed consumers' perceptions and behaviour – in respect of the products; and (4) the tariff classification of the products.

The criteria are interrelated:

> For instance, the physical properties of a product shape and limit the end-uses to which the products can be devoted. Consumer perceptions may similarly influence – modify or even render obsolete – traditional uses of the products. Tariff classification clearly reflects the physical properties of a product (WTO 2001a, Para. 121).

Looking at all the facts, a conclusion can be reached about whether the biofuels are "like" in terms of the legal provision at issue.

Two of the four criteria are important indicators of the competitive relationship between products: the extent to which products can perform the same or similar functions (end uses), and the extent to which consumers are willing to use the products to perform these functions (consumers' tastes and habits). If there is, or could be, no competitive relationship between products, then there is no Article III:4 protection (WTO 2001a, Para. 119).

The importance of considering each of the criteria individually and then collectively is highlighted by the reaction of the AB to the like product analysis of the *Asbestos* panel. In *Asbestos*, the panel was criticized for disregarding the "quite different properties, nature and quality" of chrysotile asbestos and P\A, Cellulose and Glass (PCG) fibres, as well as the different tariff classification of these fibres; it considered no evidence on consumers' tastes and habits; and it found that, for a "small number" of the many applications of these fibres, they are substitutable, but did not consider the many other end uses for the fibres that are different (WTO 2001a, Para. 125).

4.2.1 Physical characteristics (properties, nature and quality)

Properties, nature and quality concern the physical qualities and characteristics of the domestic and the imported biofuels, for example composition, size, shape, texture, taste and smell. The extent to which products share common physical properties may be a useful indicator of "likeness" and probably influences how the product can be used, consumer attitudes about the product and the tariff classification (WTO 2001a, Para. 111). When the biofuels are physically quite different, it would be more difficult to show that they are like. From the regulator's perspective, it might be easier to justify dissimilar certification systems or the exemption of some products from certification if there are important physical differences between the products.

In *Asbestos*, the AB mentioned physical properties that are likely to influence the competitive relationship between products in the marketplace. For chrysotile asbestos fibres, the AB looked at their molecular structure, chemical composition, fibrillation capacity and carcinogenicity because the microscopic particles and filaments of chrysotile asbestos fibres are carcinogenic in humans if inhaled: "This carcinogenicity, or toxicity, constitutes, as we see it, a defining aspect of the physical properties of chrysotile asbestos fibres. The evidence indicates that PCG fibres, in contrast, do not share these properties, at least to the same extent" (WTO 2001a, Para. 114).

In *Asbestos*, the AB decided that health risks associated with a product can be considered in an examination of the physical properties of that product because health risks may be relevant in assessing the competitive relationship in the marketplace between allegedly "like" products. The health risk had been confirmed by international authorities. Arguably, inherent environmental harm from gasoline could be considered in the same way and could lead a government to encourage the use of biofuels by regulating (certifying) gasoline more restrictively. Looking at all the facts, it could be argued that gasoline and biofuels are not "like", although there are some overlapping end uses.

4.2.2 End uses and applications

When designing a certification programme under the second criterion, it is important to determine the end uses for the biofuels (even if their physical properties differ) and whether those end uses for the domestic and the imported

products overlap. The analysis must be based on an exhaustive consideration of end uses – that is, "a complete picture of the various end-uses of a product" (WTO 2001a, Para. 106). In *Asbestos*, the AB noted as helpful analyses of whether the inclusion of one fibre rather than another in a particular cement-based product affects the particular physical properties of the products (e.g. heat resistance). It also mentioned as a possible consideration that the incorporation of one type of fibre instead of another could affect the suitability of a particular cement-based product for a specific end use. "Once again, it may be that tiles containing chrysotile asbestos fibres perform some end-uses, such as resistance to heat, more efficiently than tiles containing a PCG fibre."

The panel noted that the fibres give the products their specific mechanical strength, resistance to heat, compression, etc., but it did not examine the "extent to which the presence of a particular fibre affects the ability of a cement-based product to perform one or more of these functions efficiently" (WTO 2001a, Para. 129).

For the AB, if the products being examined share only a small number of similar end uses, then it is important to consider whether the overlapping end uses are an important proportion of the end uses in terms of quantity. Overall, the AB seemed focused on the quantitative relationship between the products. Of course the review must also include the end uses that do not overlap (WTO 2001a, Paras 143–144). There was some qualitative discussion. For example, a consideration was whether, or to what extent, the incorporation of one type of fibre instead of another affected other physical properties of a particular product and, consequently, the suitability of that product for a specific end use.

4.2.3 Consumer tastes and habits

Ultimately, consumers may have a view about the "likeness" of two products that is very different from that of the inventors or producers of those products. Consumers' tastes and habits – and so those of manufacturers - might be related to the physical properties of a product. In *Asbestos*, the consumers' preferences probably were related to the health risks associated with certain carcinogenic fibres. A commercial consumer's (manufacturer's) choice might also be influenced by other factors, including the additional costs associated with safety procedures required to use products in the manufacturing process on the cost of feedstocks, or the availability of subsidies. For both individual and manufacturing consumers, functional interchangeability might not overcome a public health risk or a growing environmental awareness among retail and commercial consumers. Consumers want to know the origin of products and their effects on the environment (Woods and Diaz-Chavez 2007).

Other consumption factors could be important. In *Korea–Alcoholic Beverages*, the AB recognized that "latent demand" for a product might be suppressed by regulatory barriers and commented that "evidence from other markets may be pertinent" (WTO 1999a).

4.2.4 Tariff classification

The final of the four factors is the tariff classification(s) of the imported products. Identical or different tariff classification cannot, on its own, be decisive. When the biofuels all have different tariff classifications, that fact "does tend to indicate" that the products are not like (WTO 2001a, Para. 140).

4.3 Certification to a Product Standard

The typical certification is to a product standard, for example a certification that a biofuel contains a set amount of ethanol or carbon content or originates from a designated feedstock or that a diesel gasoline contains x amount of biodiesel. Another imaginable scheme is to certify carbon content or a reduction of emissions.

Brazil has standards for several products, including technical specifications for biodiesel and for anhydrous and hydrated ethanol. There are methods and procedures for quality testing of fuel ethyl alcohol and biodiesel. In addition, Brazil defines certified reference material for homogeneity, stability and characterization,

based on ASTM E826 and ISO Guide 34 and 35. A national authority creates certification methods to determine, for ethanol fuel, water content, conductivity and density (BRS 2007).

The EU Directive on the promotion of the use of energy resources mandates that the use of biofuels should lead to a saving of at least 35 percent of GHG emissions, calculated through the lifecycle of the project. Alternatively, the requirement might be that the biofuel feedstock be maize or sugar instead of rapeseed or another feedstock. In a trade context, this measure would be a typical Article III measure, but it would be incompatible with that Article and so could be judged under Article XX. However, unless the scheme is linked to the conservation of natural resources, it might not be covered by Article XX. The WTO's subsidies rules might also apply.

In deciding these preliminary aspects of the certification programme – the targeted products and those to be excluded – probably the emphasis should be on justifying the distinctions made between the products that can be certified and the products that cannot receive the certification and the consequent benefits. The rationale for the action should be supported under a product or a process analysis. At the same time, regulators should be thinking of whether the decisions might qualify under GATT Article XX(b)(health) or Article XX(g) (environment) – just in case.

4.4 Other Certification Criteria

A regulator may require a supplier to certify about the geographical or the product (feedstock) source of the biofuel. These programmes probably would be evaluated under GATT Articles I and III (plus Article XX) and the TBT Agreement.

5. WHAT TO CERTIFY: PROCESS AND PRODUCTION METHOD ISSUES

The preceding discussion about the biofuels fits within the standard framework of the GATT by looking at biofuels as goods, i.e. as products. However, many aspects of biofuels certifications may target the process of the production or manufacture of those goods. Consequently, the standard "goods" analysis does not always fit comfortably and the considerations for regulators must shift somewhat. Since the certification often relates to an environmental or health consequences of a process (not the characteristics or treatment of the product), the relevant WTO rules shift, for example to the TBT Agreement and to Article XX's language about "arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade".

The Organisation for Economic Co-operation and Development (OECD) defines PPMs as standards with criteria about how or by whom a product is grown, manufactured, processed, harvested or taken before it is placed on the market. Label claims such as "made with", "produced by" and "harvested by" are indicators. According to the OECD, emission and effluent standards, certain performance or operations standards, and practices prescribed for natural resource sectors are PPMs. "The PPM standard may also address the environmental effects of a product throughout its life-cycle such as the effects which may emerge when the product is produced, transported, consumed or used, and disposed of" (OECD 1993).

Although WTO members retain the sovereign right to act in these policy areas, their flexibility is constrained by the conditions in the TBT Agreement and, if applicable, by GATT Article XX. They must act in good faith. As stated by the AB in *Shrimp*, the task of interpreting and applying the chapeau is:

> ...the delicate one of locating and marking out a line of equilibrium between the right of a Member to invoke an exception under Article XX and the rights of the other Members under varying substantive provisions (e.g. Article XI) of the GATT 1994, so that neither of the competing rights will cancel out the other and thereby distort and nullify or impair the balance of rights and obligations constructed by the Members themselves in that Agreement.

The location of this line of equilibrium may move "as the kind and the shape of the measures at stake vary and as the facts making up specific cases differ".

The paucity of guidance exists even though the TBT Agreement refers specifically to and covers PPMs in its definition of technical regulation: a document that "lays down product characteristics *or their related processes and production methods*..." [author's italics].

Although the PPM issue can be the cause of intense political and legal disputes, as in *Beef Hormones* (WTO 1998a), there is not always clear guidance in WTO law about the parameters for permissible government action. *Beef Hormones* was decided under the SPS Agreement and so offers no direct guidance about, for example, measures addressing the protection of the environment. Environmental disputes were inconclusive until *Shrimp* and *Asbestos*.

5.1 PPMs as Non-Goods Issues

There are rare instances in which the AB has looked at the PPM as a non-goods issue, declined to apply Article III and used the analysis of Article XX. This was the result in the two *Tuna/Dolphin* panel reports, neither of which was adopted by the GATT Council. In those cases, and if the panel's reasoning is followed, the chapeau of Article XX provides a crucial lens for those planning government action of this nature. More often, panels and the AB have remained within the Article III analysis, finding a measure to be about goods, even though it is couched in environmental or business identity terms.

5.2 Certification to a Positive Environmental Effect

Many certification systems are the outgrowth of environmental protection policies. Among the environmental goals that could be checked through a certification programme are the protection of carbon stocks, biodiversity, soils, water and the air. The EU, the USA and California, to name only a few, ground their certification programmes on policies about the protection of the environment or about combating global warming. In addition, the certification could be linked to a desired level of emission savings or carbon miles.

Product distinctions and certification schemes have been based on environmental or social conditions in the supplying country, usually resulting in strong criticism from the suppliers and their governments. Some developing countries say that requirements related to environmental protection and social conditions in the supplying country may be counterproductive.[8]

In its proposed renewable energy directive, the EU Commission included Article 15 on environmental sustainability criteria for biofuels and other bioliquids. The benefits cannot be given to biomass from land with recognized high biodiversity value or high carbon content.

5.2.1 The Shrimp dispute

The *Shrimp* dispute concerned a PPM and certification. In *Shrimp*, the USA banned imports of shrimp from exporting countries that had not been certified by the USA as having regulatory regimes in place to prevent the killing of sea turtles during the process of shrimping (WTO 1998b). The Article III measure was discriminatory, and so the AB used GATT Article XX(g) to analyse the ban on shrimp imports caught in a process that harmed sea turtles. The goal was within the purview of the subparagraph, but the procedure, in its application, resulted in arbitrary and unjustifiable discrimination against the exporting governments.

5.2.2 The Tuna/Dolphin disputes

The two *Tuna/Dolphin* disputes were also about PPM standards. The first dispute concerned a standard that resulted in a "primary" import ban on tuna from countries that did not have a regulatory regime to protect dolphins comparable to the US regime (GATT 1991). Another feature of the law was a fishery-practice standard under which supplying countries were required to maintain their overall dolphin-killing rate to no more than 25 percent above the US annual rate. The panel decided that Article III was inapplicable because the measure "could not possibly affect tuna as a product". The report was not adopted by the GATT Council. *Tuna/Dolphin* II had the same results (GATT 1994b). The Panel's report, finding Article III inapplicable, was not adopted by the GATT Council.

5.3 Certification to a Social Goal

Producers might be required to certify that a social goal is met. For example, the certification could be directed at supporting fair working conditions or at ensuring that land rights, forests or the soil were not adversely affected. The Cramer Commission in the Netherlands recommended sustainability criteria for biomass production, including the "social well-being" of employees and the local population. Currently, these types of biofuels certification are rare and are debated vigorously. The debate within the EU as it developed its directive on energy from renewable resources illustrated the strongly held views for and against these social criteria.

5.4 Certification of the Producer

A government may develop a PPM based on the producer. For example, Annex 4 of the EU's proposed renewable energy directive contained a certification programme for biomass installers that had to be certified by an accredited training programme or training provider.

In *Alcoholic Beverages*, local government tax benefits for any microbrewery were challenged by Canada, which argued that the measure discriminated against its sizable breweries (GATT 1992).[9] Although the regulation concerned the producers, the Panel used the product framework. The provision of preferential excise tax treatment to wine produced from local ingredients was inconsistent with Article III:2, first sentence, and was not covered by Article III:8(b). It stated that beer is beer. A beer from a microbrewery is a like product to a beer from a mass producer and so the size of the manufacturer is not a justification for differentiation. As a consequence, the tax treatment, which benefited only the microbreweries, violated Article III:2 of the GATT 1994.[10] In the view of the Panel, even if Minnesota were to grant the tax credits on a non-discriminatory basis to small breweries inside and outside the USA, imported beer from large breweries would be "subject ... to internal taxes ... in excess of those applied ... to like domestic products" from small breweries and there would still be an inconsistency with Article III:2, first sentence.

There were many findings made by the Panel. The Panel rejected the US argument that the measure was designed to help small businesses. The Panel noted the argument of the USA that the intent of these state tax exemptions or reductions was to provide a subsidy to small producers but decided that the imports were subject to internal taxes in excess of those applied to like domestic products, inconsistent with Article III:2, first sentence.

In US – Taxes on Automobiles, the panel said that "Article III:4 does not permit treatment of an imported product less favourable than that accorded to a like domestic product, based on factors not directly relating to the product as such" (GATT 1994a). The US law, the US Corporate Average Fuel Economy (CAFE) regulation, was based on a fleet-averaging method that treated domestic and foreign-made autos separately. The Panel concluded that fleet-averaging violated Article III because it was "based on the ownership or control relationship of the car manufacturer" and therefore "did not relate to cars as products". The measure did not qualify for GATT's environmental exception and so was not protected under Article XX. This report also was not adopted by the GATT Council.

The *US Gasoline* case involved a PPM related to the producer's characteristics (WTO 1996b). The US regulation required a reduction from a pollution baseline in a way that disfavoured the foreign suppliers, contrary to the national treatment requirement. The foreign producers were assigned a standard baseline by which to reduce polluting ingredients – like an averaging – based on a refinery's output or the output to be exported (not on the characteristics of the gasoline). The US justification was that it could not verify the data from the overseas suppliers. In contrast, each domestic producer had an individual baseline. The effect was that some low-pollution foreign refiners were held to the

baseline standard, which made them reduce their targeted ingredients more than they would have if they had been assigned an individual baseline. The baseline standard of the low-pollution foreign refiners was raised because of some higher-pollution foreign suppliers.

The Panel decided on the basis of Article III, not Article XX. According to the panel, "Article III:4 does not allow less favorable treatment dependent on the characteristics of the producer and the nature of the data held by it" (WTO 1996b). Also, it believed that the Article III:4 like product analysis should be based "on the objective basis of their likeness as products" and not "extraneous factors" (WTO 1996b). This interpretation of Article III:4 was not appealed.

5.5 Certification to "How Produced"

There is no precedent for a "how-produced" PPM standard, such as one that requires the use of certain raw materials. An argument can be made that it would be judged under GATT Article III, since a biofuel with certain characteristics might be the aim and under Article XX if there were a conflict with Article III. On the other hand, if the production process is focused not on the raw material but on its absence for environmental reasons or on the environmental impact of the production process, then it might be possible to argue that Article XX(g) provides a cover.

5.6 Certification Concerning the Protection of Public Health or Food Safety/Security

It is difficult to devise a well-documented direct link between biofuels and public health, but the effect of high grain prices on global food security has been documented. The World Health Organization (WHO 2007) and, more recently, the Global Humanitarian Forum (2009)[11] relate climate change and health. There could be an indirect link; for example, encouraging the use of biofuels protects humans from the health risks associated with global warming.

On the fringes of regulation or when there appear to be concerns about the focus on biofuels, competing social and food security needs are mentioned at the local level as well as nationally and internationally. Among the most frequently heard concerns are those about the impact on food prices of the switch of land and crops from food production to biofuels stock and the environmental impact of certain deforestations to make room for biofuels feedstock (FAO 2008b). Deforestation can have its own adverse impact on climate change, on rainforest animals such as orangutans and on rare and endangered species.[12] In July 2008, UN Secretary-General Ban Ki-moon told a General Assembly meeting about the global food and energy crisis that, although biofuels are important in combating climate change, international guidelines are needed to maintain an adequate food supply. At the same meeting, Robert Zoellick, President of the World Bank, urged the use of land for food. Critics of the emphasis on biofuels production admit that the so-called second-generation biofuels – most based on non-food plants or the waste parts of plants – are promising.

6. THE DOCUMENTS OF BIOFUELS CERTIFICATION: TECHNICAL REGULATIONS AND STANDARDS

A certification programme requires the applicant to submit documents to prove that the applicant qualifies for certification. Biofuels certification may require the applicant to submit a document of conformity with criteria (such as product characteristics and uses), a procedure or administrative process for assessing whether there is conformity with the criteria (e.g. sampling, testing, production process), and a document attesting to conformity (or non-conformity) with the possibility of a special label or symbol to indicate conformity. The assessment of conformity may require an audit, a positive assessment by a third-party certifier and subsequent verification.

For biofuels certification, the "act" is primarily a multistage process rather than the static act of issuing a document. The document declaring finally that a product or process does or does not meet certain criteria is the culmination of a procedure conducted to determine whether the product or process conforms to the criteria. The documents and procedures likely would be subject to the constraints of Article III and the TBT Agreement with its annex on conformity assessment procedures. In a more limited set of circumstances, either the SPS Agreement or the Agreement on Government Procurement might be relevant.

6.1 GATT Article III:4 – Internal Regulations

Article III:4 contains the basic rule against the use of regulations as non-tariff barriers to international trade. It is supplemented by the rules of the TBT and SPS agreements. Mixing regulations, distribution rules and product labels are examples of Article III:4 measures. The offering for sale, distribution and use of the biofuels are the most likely activities to be regulated.

The text of Article III:4 reads in part:

> The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to *like products* of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use [author's italics].

Article III:4 applies only to "like products" and does not include a provision equivalent to the second phrase of Article III:2 regarding directly competitive or substitutable products. The term "like products" is concerned with competitive relationships on the internal market between and among competing products, such as those having the same characteristics or qualities or of approximately identical shape and size. "[I]t is important under Article III:4 to take account of evidence which indicates whether, and to what extent, the products involved are – or could be – in a competitive relationship in the marketplace" (Trindade 2007). Here "like" concerns the nature and extent of a competitive relationship between and among products.

It is possible to show that products in competition are not like. In the 1992 *Alcoholic Beverages* dispute, the Panel found that light beer and high-alcohol beer are similar on the basis of their physical characteristics but concluded that they are not like. Other factors mentioned were that domestic and foreign suppliers produced both high- and low-alcohol-content beer and that the laws and regulations did not differentiate between imported and domestic beer. The beers were treated differently by some states but not for protectionist ends. "The burdens resulting from these regulations thus do not fall more heavily on Canadian than on United States producers." The Panel also noted that although the market for the two types of beer overlaps, there is at the same time evidence of a certain degree of market differentiation and specialization: consumers who purchase

low-alcohol-content beer may be unlikely to purchase beer with a higher alcohol content, and vice versa, and manufacturers target these different market segments in their advertising and marketing (GATT 1992).

6.1.1 "Treatment no less favourable"

If there are like products in competition, then the next step in planning an Article III:4 certification rule is to draft a certification programme that gives to the "like" imported products treatment that is no less favourable than that given to the competing "like" domestic products. This is a comparison of situations.

The term "less favourable treatment" expresses the general principle, in Article III:1, that internal regulations "should not be applied...so as to afford protection to domestic production". If there is "less favourable treatment" of the group of "like" imported products, then there is "protection" of the group of "like" domestic products. On the other hand, merely drawing distinctions between "like" products is not automatically "less favourable treatment".

A somewhat similar issue arose in the AB report in *Beef Hormones*, although the focus was the SPS Agreement and not Article III. The AB looked at the distinctions made by the EC among different hormones and the methods of administering the hormones, among other distinctions. It stated:

> ...the arbitrary or unjustifiable character of differences in *levels of protection* considered by a Member as appropriate in differing situations – may in practical effect operate as a "warning" signal that the implementing *measure* in its application *might* be a discriminatory measure or *might* be a restriction on international trade disguised as an SPS measure for the protection of human life or health. Nevertheless, the measure itself needs to be examined and appraised and, in the context of the differing levels of protection, shown to result in discrimination or a disguised restriction on international trade [author's italics] (WTO 1998a, Para. 215).

It concluded that the difference in the EC levels of protection for the hormones when used for growth promotion and for carbadox and olaquindox is unjustifiable under the SPS Agreement. It also found no justification for the different methods of administering the natural and synthetic hormones.

6.2 The Documents

A document states that the criteria may be either a *technical regulation* (mandatory) or a *standard* (non-mandatory), according to the TBT Agreement.[13] Both are also subject to Article III of the GATT 1994, as explained previously. The TBT Agreement defines "technical regulation" and "standard", but Article III does not define either phrase. The *Asbestos* ruling illustrates the overlapping legal provisions between Article III and the TBT Agreement, although the AB emphasized that the situation in that dispute was special.[14]

6.2.1 Technical regulations

According to the TBT Agreement, a technical regulation is a

> ...*document* which lays down *product characteristics* or their related processes and production methods, including the applicable administrative provisions, with which compliance is *mandatory*. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method [author's italics].[15]

6.2.1.1 Product characteristics

These "product characteristics" include not only features and qualities intrinsic to the product itself but also related "characteristics", such as the means of identification, the presentation and the appearance of a product (WTO 2001a, Para. 67). Obvious examples are a product's composition, size, shape, colour, texture, hardness, tensile strength, flammability, conductivity, density and

viscosity. Any "objectively definable" features, qualities, attributes or other distinguishing mark of a product may fall within the definition of a product characteristic. According to Annex 1.1 of the TBT Agreement, symbols, packaging, marking or labelling requirements can constitute a technical regulation. "The characteristic may be positive (products must possess certain characteristics) or negative (products must not possess certain characteristics). And it must apply to an identifiable product or group of products, although identifiable does not mean specifically named" (WTO 2001a, Paras 69–70).[16]

The *Asbestos* dispute concerned a technical regulation:

> Viewing the measure as an integrated whole, we see that it lays down "characteristics" for all products that might contain asbestos, and we see also that it lays down the "applicable administrative provisions" for certain products containing chrysotile asbestos fibres which are excluded from the prohibitions in the measure. Accordingly, we find that the measure is a "document" which "lays down product characteristics ...including the applicable administrative provisions, with which compliance is mandatory (WTO 2001a, Para. 75).

6.2.1.2 A mandatory measure

The document has a mandatory aspect when it prescribes or imposes characteristics in the nature, for example of features, qualities, attributes or a distinguishing mark. A mandatory administrative provision applicable to a product with the desired characteristics is also a technical regulation.

6.2.2 Standards

A standard is also a document. It differs from a technical regulation because compliance is not mandatory. A standard provides rules, guidelines or characteristics for products or related processes and production methods for common and repeated use. The document must be approved by a recognized body.

Like a technical regulation, a standard may include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method. There is a special admonition: "Wherever appropriate, the standardizing body shall specify standards based on product requirements in terms of performance rather than design or descriptive characteristics."

The basic trade rules are carried into the texts about standards. As an example, a standardizing body must accord treatment to products originating in the territory of any other Member no less favourable than that accorded to like products of national origin (national treatment) and to like products originating in any other country (MFN). The support for harmonization is also present in the rules about standards. Annex 3 (Code of Good Practice for the Preparation, Adoption and Application of Standards) states that, when appropriate, a standardizing body must specify a standard "based on product requirements in terms of performance rather than design or descriptive characteristics".

7. THE PROCEDURES OF BIOFUELS CERTIFICATION: CONFORMITY ASSESSMENT PROCEDURES

In addition to considering carefully the product, the process and the documents of biofuels certification, the certification procedure must conform to the rules of free and non-discriminatory international trade. As a procedure, biofuels certification can be considered to be a conformity assessment procedure.

For example, the certification of conformity to the social goal can involve mandatory reporting (Charnovitz et al. 2008), audits and verification by government or a third party. In the USA, the EPA administers rules about emissions and health effects of biodiesel, using third-party (National Biodiesels Board, NBB) group data. The NBB data met the 1998 nationally accepted biodiesel standard at the time of testing and have been adopted as ASTM D 675.

> Thus, a biodiesel producer may meet EPA's emissions and health effects testing requirement for biodiesel by reaching an agreement with NBB for access to NBB's registration data, and making a certification to EPA that the producer has notified NBB of the use of NBB's data and reimbursed NBB for the use of their data. Any biodiesel producer who does not have access to NBB's data must provide EPA with its own emissions and health effects test data as part of the registration process (EPA 2007).

According to Article 3 of the TBT Agreement, conformity assessment procedure is a "procedure used, directly or indirectly, to determine that relevant requirements in technical regulations or standards are fulfilled". Conformity assessment procedures include, among others, procedures for sampling, testing and inspection; evaluation, verification and assurance of conformity; registration, accreditation and approval; and combinations of these. This definition separates the technical regulation – for example, a blending requirement – from the procedure used to assess conformity with that requirement – for example, the conformity determination. The two are complementary but trigger different roadmaps for those considering a biofuels-certification programme.

Article 9:1 of the TBT Agreement states: "Where a positive assurance of conformity with a technical regulation or standard is required, Members shall, wherever practicable, formulate and adopt international systems for conformity assessment and become members thereof or participate therein."

Basic trade disciplines apply to conformity assessment. First, the preparation, adoption or application of a conformity assessment procedure must not be done with a view to or with the effect of creating unnecessary obstacles to international trade; that is, it must not be more strict or be applied more strictly than is necessary to give the importing country's regulators adequate confidence that products conform with the applicable technical regulations or standards, taking account of the risks non-conformity would create.

The rules concerning conformity assessment include some directed at central governments. Most of them are in Articles 5 and 6 of the TBT Agreement. As an example, when a central government body demands a positive assurance of conformity, according to Article 5.1 it must apply several protections to products originating in the territories of other WTO Members; for example, it must ensure that conformity assessment procedures are prepared, adopted and applied so as to grant access for suppliers of like products under conditions no less favourable than those accorded to suppliers of domestic like products or of like products originating in any other country, in a comparable situation.

The detailed rules for conformity assessment procedures are included in Article 5.2 of the TBT Agreement. The procedures must be undertaken and completed as expeditiously

as possible. Spot checks by the importing government within its territory are permitted. Fees must be equitable under the specific circumstances. Transparency and the protection of confidentiality are required. The information required must be limited to what is necessary to assess conformity. The site of the facilities and samples selected must not cause unnecessary inconvenience to applicants or their agents. The attention to these and other procedural details highlights the importance of implementing the certification programme fairly. In addition, there must be a complaints procedure and corrective action when a complaint is justified.

The SPS Agreement has its own rules about control, inspection and approval procedures. Any procedure to check and ensure the fulfilment of sanitary or phytosanitary measures must be fair, including a rule requiring treatment no less favourable for imported products than for like domestic products. Article 8 of the SPS Agreement cross-references Annex C of the agreement, which addresses the operation of control, inspection and approval procedures, including national systems for approving the use of additives or for establishing tolerances for contaminants in foods, beverages or feedstuffs. One of the rules in Annex C requires Members to "ensure, with respect to any procedure to check and ensure the fulfilment of sanitary or phytosanitary measures, that: (a) such procedures are undertaken and completed without undue delay and in no less favourable manner for imported products than for like domestic products".

The EU's proposal for a bioenergy directive included several directions to the Member States that follow the TBT parameters. According to Article 12 of the proposal, Member States must, in particular, ensure that:

> (a) the respective responsibilities of national, regional and local administrative bodies for authorisation, certification and licensing procedures are clearly defined, with precise deadlines for approving planning and building applications;
>
> (b) administrative procedures are streamlined and expedited at the appropriate administrative level;
>
> (c) rules governing authorisation, certification and licensing are objective, transparent and non-discriminatory, and take fully into account the particularities of individual renewable energy technologies;
>
> (d) clear guidelines are established for coordination between administrative bodies, concerning time limits and the receipt and handling of planning and permit applications;
>
> (e) administrative charges paid by consumers, planners, architects, builders and equipment and system installers and suppliers are transparent and cost-related;
>
> (f) less burdensome authorisation procedures are established for smaller projects; and
>
> (g) mediators are designated to act in disputes between applicants and authorities responsible for issuing authorisations, certificates and licenses.

8. THE REWARDS OF CERTIFICATION

For those who apply for certification, the purpose often is to obtain a benefit or reward. The certification may determine whether taxes are reduced or eliminated, which tariffs apply or whether incentives are available, among many other possibilities. Certification may also permit the use of a special label or logo. Under the US Biomass Research and Development Initiative, many types of support are possible, including production incentives for cellulosic biofuels, as well as small business bio-marketing and certification grants.[17] The law provides grants for the certification of bio-based products to qualify for a special label created under the Farm Bill or to meet bio-based standards.[18]

A certification programme may obtain the documents needed to prove that the criteria are met. The US Commodity Credit Corporation demands certification and access to records needed to verify compliance from feedstock producers seeking funding under the biofuels programme. This certification includes different information from ethanol, upgraded hydrous ethanol and biodiesel producers. A biodiesel producer must provide certification that it is registered and in good standing with the EPA under the Clean Air Act and that the biodiesel meets the American Society for Testing and Materials' biodiesel standard (USDA 2003).

8.1 Lower Taxes

Any sustainably produced biofuel may benefit from a Swiss tax exemption (Steenblik et al. 2008). Under the revenue laws of the United Kingdom of Great Britain and Northern Ireland (UK), biodiesel and bioethanol may pay a lower rate of excise duty than diesel and even unleaded petrol (HMRC 208, Para. 3.1). Also in the UK, an imported bioethanol blend must be denatured according to the UK formulation or "as closely as possible" to that formulation (HMRC 208, Para. 3.5.3). The UK's Renewable Transport Fuels (RTF) Order, which has a certification element, requires applicants to provide certain basic information but also makes the certificates transferable (DfT 2007). The applicant must ensure that the information submitted in the application is accurate to the best of their knowledge and belief. The information must be accurate. In addition, it must be in the correct form, using the methodology and within the required period. Where each of the requirements has been met, the administrator must issue an RTF certificate to a transport fuel supplier for each litre of qualifying renewable transport fuel.

GATT Article III:2 prohibits the use of certain internal tax measures, such as a sales or excise tax, for protectionist ends. Article III:2 of the GATT 1994, which deals with the internal tax treatment of imported and domestic products, prevents Members, through its first sentence, from imposing internal taxes on imported products "in excess of those applied ... to like domestic products". Specifically:

> 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 [author's italics].[19]

Article III:2 contains two separate criteria, each imposing distinct obligations: the first lays down obligations in respect of "like products", while the second lays down obligations in respect of "directly competitive or substitutable" products. The definition of "like products" in Article III:2, first sentence, is construed narrowly.[20] This sentence, when read alone, offers more possibilities for distinguishing products and for concluding that they are not like than under

Article III:4 (regulations). As a consequence, there might be more possibilities for justifying internal tax measures, for example excise or turnover taxes, as part of a certification programme.

Indonesia–Automobiles involved an Article III:2 challenge to tax measures imposed to create and to support a national car industry (WTO 1998c). One law taxed imports at a higher rate than the domestic competition, contrary to the first sentence of Article III:2.[21] Another law taxed the imported and domestic directly competitive or substitutable products at different rates, contrary to the second sentence of Article III:2.

An interesting decision about subsidies involving BP Chemicals was based on EU law and not the WTO rules. Nevertheless, it offers a view of the interplay between support for biofuels production on the one hand and internal EU commerce on the other hand. BP challenged the approval by the EC of a French biofuels programme that authorized Member States to apply

> ...total or partial exemptions or reductions in the rate of duty to mineral oils used under fiscal control:...(d) in the field of *pilot projects* for the technological development of more environmentally-friendly products and in particular in relation to fuels from renewable resources...[author's italics].

According to the EC:

> ...biofuels are in competition with most fuels and combustibles of fossil origin... Since biofuels compete with fuels and combustibles of fossil origin as additives and substitutes and are the subject of intra-Community trade, the aid in question is liable to affect such trade and to distort competition...

The EC later approved a revised French programme with pilot projects for reducing the tax on sites producing certain products obtained from vegetable raw materials with separate exemption rates for esters and another for the additive ethyl tertiary butyl ether (ETBE). BP Chemicals challenged the EC's approval of the revised French programme. The Court of First Instance concentrated on the meaning of "pilot project", trying to determine the line between those projects and commercial endeavours. On the other hand, the Court commented: "there is no obstacle to tax-exemption schemes for better market penetration by biofuels, such as the one at issue in this case... provided that the requirements of Directive 92/81 [pilot projects] are complied with..."

8.2 Excise Tax Relief

Many programmes offer rewards, such as excise tax holidays or reductions in EU Member States, notably Austria, France, Germany and the UK, when the supplier can certify to a certain carbon footprint. The UK government called for a graduated vehicle excise duty for cars based on CO_2 emissions and reduced fuel duties for bioethanol and biodiesel. Subsidies offered by some EU Member States also give a zero excise duty rate for research and development (R&D) pilot projects. Both France and the UK have used this approach. The French programme was challenged by BP Chemicals Ltd before the European Court of Justice in a dispute described below.

In the WTO dispute about *US–Alcoholic Beverages,* the Panel found that the state excise tax credits provided by the local governments in the states of Kentucky, Minnesota, Ohio and Wisconsin to domestic breweries based on annual beer production, but not to imported beer, are inconsistent with Article III:2, first sentence (GATT 1992, Para. 5.19).

8.3 Other Incentives

The cost of producing the source crops and of the technology for producing biofuels often is too expensive for the local private sector (FAO 2008a). Government incentives help to make production possible. Incentives may be offered to encourage production of the source crops or to assist in covering costs. The subsidies may support production (e.g. through price supports), inputs such as biomass, outputs such as mandatory blending requirements, R&D regarding cellulosic biofuels, tax breaks such as lower excise taxes and grants, and general services, among many other possibilities. In the EU and Switzerland, the support is given only to biofuels that are certified as having met specific criteria.

The statutory language of the US Alternative Motor Vehicles and Fuels Incentives specifies a certification programme. For eligible hybrid motor vehicles, the amount of the incentive is related to a percentage of the "incremental hybrid cost of the vehicle as certified". The certification "must be made by the manufacturer and is determined by regulation. The regulations specify procedures and methods for calculating fuel economy savings and incremental hybrid costs".[22]

The subsidies that support a biofuels policy are a great concern in international trade. Usually they are not direct support for the certification programme *per se* and the certification is not the subsidy or support. The certification most likely would be judged as a TBT measure and not as a subsidy programme.

Both the SCM Agreement and the AoA address government support. Ethanol and agricultural feedstocks are covered by the AoA through its Annex I, which lists products by chapters of the Harmonized Tariff System (HS). The AoA addresses market access as well as domestic and export subsidies for agricultural products. A domestic subsidy might be used by a developed country to encourage the production of corn, palm, rapeseed, soybeans or sugar for use as biofuels stock. An export subsidy might be used by a developing country to encourage exports of locally produced biofuels. The export and domestic subsidy provisions of the AoA have been reviewed by the AB in several noteworthy disputes, including for export subsidies *EC-Export Subsidies on Sugar* (WTO 2005a) and for domestic subsidies *US-Subsidies on Upland Cotton* (WTO 2005b) and in other papers in this series. Eventually, their applicability to biofuels might reach WTO dispute settlement if a complaint about US subsidies filed by the European Biodiesel Board moves forward (ICTSD 2008).[23]

8.4 Support for Biomass Production

As part of the 2008 US farm bill, Congress directed the US Department of Agriculture (USDA) to create the Biomass Crop Assistance Program[24] to support the establishment and production of crops for conversion to bioenergy in certain locations and to assist with the collection, harvesting, storage and transportation of eligible material for use in a biomass-conversion facility. According to USDA (2009), the programme "presents an opportunity to encourage landowners and operators to produce biomass for commercial energy production in ways that are both economically and environmentally sound". The EU and the Organization of American States provide some support for jatropha production in Belize and other Central American countries (Caribbean Climate Change Centre 2008).

8.5 Research and Development Assistance

In the Energy Research, Development, Demonstration, and Commercial Application Act of 2005,[25] the US Congress mandated a "balanced" set of programmes of energy research, development, demonstration and commercial application, with the goal (among others) of promoting diversity of energy supply. The law provides for grants to researchers and small businesses, among others, with the possibility of preferences for members of an Industry Alliance. The scope of federal support is evident from a Congressional Research Service report to the US Congress, which lists incentives by the granting agency (Yacobucci 2006).

The USA supports biomass research through grants from the Department of Agriculture and the Department of Energy. The Biomass Research and Development Initiative supports technologies and processes "necessary for abundant commercial production of biobased fuels at prices competitive with fossil fuels", high-value bio-based products and feedstock production. The US Agricultural Biomass Research and Development Program's definition of bio-based product, naming of eligible entities and listing of technical areas for desired R&D points towards the criteria to fulfil in order to be certified: feedstock production, developing technologies for converting cellulosic biomass into intermediates useful for conversion into bio-based fuels, product diversification, and analysis for strategic guidance for the application of biomass technologies.[26] Different certification standards apply to obtain US production incentives for cellulosic biofuels.[27] The law also names the eligible entities and purposes, including accelerated deployment and commercialization of biofuels, ensuring post-2015 biofuels are cost-competitive with gasoline and diesel, and ensuring that small feedstock producers and rural small businesses are full participants in the development of the cellulosic biofuels industry and priority projects.

8.6 Support for Use of Local Feedstock

Other incentives are offered for the use of specified materials. Some local programmes are about blending by local producers, as occurs in California in the USA. Other local governments mandate the use of blended fuels in government vehicles. In *US–Alcoholic Beverages*, the preferential excise tax treatment to wine produced from local ingredients was found to be inconsistent with GATT Article III:2, first sentence. Also, the lower excise tax rate for wine produced from a special variety of grape with a limited growing area – a rate that was not available to imported wine produced from other varieties of grape – was inconsistent with Article III:2, first sentence.

The EU (as well as several Member States) (Kutas et al. 2007; Pio Lopez and Laan 2008) and the USA (Capeghart et al. 2008)[28] provide substantial support for biofuel feedstocks, mainly oilseeds and mainly local products. Malaysia supports palm oil as a feedstock.

8.7 Government Procurement

The Agreement on Government Procurement, a voluntary plurilateral agreement to which WTO Members opt in, applies only to its 13 signatories (which include Canada, the EU, Japan, Korea, the USA and Switzerland) and only to the extent of the particular undertakings of each signatory. A supplier from most African, Asian or Latin American countries would receive neither the benefits nor the protections of the Agreement. On the other hand, rights under the WTO agreements would not be limited in any way.

In the USA, procurement of bio-based products falls under the farm laws. A 2007 amendment made the rules apply to federal agencies and to "any person" contracting with a federal agency under certain contracts. In this way, the procurement rules are extended to the private sector.[29] The 2008 US Farm Bill, in its Energy Title, requires federal agencies to maximize the procurement of bio-based products with mandatory funding and a voluntary labelling programme. The law also authorizes funding for the purchase of surplus

US sugar for resale as a biomass feedstock for bioenergy. The stated government objective is making the domestic sugar programme a no-net-cost operation for the government. That objective has trade consequences.

It applies to procedures and practices and to technical specifications. Transparency and non-discrimination are cornerstones of the agreement. In addition, its Article 3 contains a clause that might be important for those designing a biofuels programme. The national and local entities subject to the agreement "shall not discriminate against locally-established suppliers on the basis of the country of production of the good or service being supplied, provided that the country of production is a Party to the Agreement in accordance with the provisions of Article IV".

Technical specifications prescribed by procuring entities must, where appropriate, (1) be in terms of performance rather than design or descriptive characteristics; and (2) be based on international standards, where such exist, or otherwise on national technical regulations or recognized national standards. There must be no requirement or reference to a particular trademark or trade name, patent, design or type, specific origin, producer or supplier, unless there is no sufficiently precise or intelligible way of describing the procurement requirements and provided that words such as "or equivalent" are included in the tender documentation.

8.8 Labelling and Logos

Often, the certification programme authorizes a certified entity to use an authorized symbol, logo or label. The USA has small-business bio-product marketing and certification grants for working capital and to provide for the certification of bio-based products to qualify for a particular label.[30] Both labels and logos are subject to GATT Article III and the TBT Agreement.

8.9 Reduced Tariffs

Switzerland has a bound tariff on diesel under tariff item HS 3824.9030 but applies a zero rate to support biodiesel output in supplying countries. Under the Caribbean Basin Initiative, ethanol from local feedstocks in beneficiary countries can enter the USA duty-free. Currently, bioethanol under tariff code 2207 enters the EU duty-free under the following preferential trade arrangements: the Everything But Arms initiative (EBA) for least developed countries; the Cotonou Agreement with African, Caribbean and Pacific (ACP) countries; the new "GSP [Generalized System of Preferences] plus" incentive scheme (special incentive arrangement for sustainable development and good governance); and some bilateral preferential agreements, notably the Euro-Mediterranean Agreement (EC 2006a). MFN tariff rates are subject to GATT Articles I and III, among other WTO rules.

9. WHAT TO DO IF THE CERTIFICATION PROGRAMME DOES NOT CONFORM TO WTO RULES

If the certification programme is inconsistent with the GATT Article I (MFN) or Article III (national treatment) or with any other WTO rule, then it might be justified under one of the general exceptions in GATT Article XX. Its use means that there has been a challenge to the measure, which might be countered on public policy grounds. Clearly, governments now have goals, policies and measures that address climate change and its consequences. To respond with a trade-restrictive measure, the detailed factual support described in *Asbestos* and *Tyres* must be developed. The policy objectives in either Article XX(g) (relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption) or Article XX(b) (necessary to protect human, animal or plant life or health) are the most likely bases for a biofuels policy and a certification programme. Note that the two are not mutually exclusive, as *Brazil–Tyres* illustrates. The certification programme's design and the manner in which it is applied are also key to creating a certification programme that can be justified under Article XX.

9.1 The Biofuels Policy and GATT Articles XX(b) and (g)

The analysis of a measure under Article XX of the GATT 1994 is two-tiered. The health or environmental goals and their relationship to biofuels are the starting points for the Article XX(b) or (XX g) analysis. In a dispute, the national criteria and the facts are looked at, considering "the importance of the interests or values at stake, the extent of the contribution to the achievement of the measure's objective, and its trade restrictiveness". WTO law recognizes the importance of policies designed to protect the environment even when, as in *Brazil–Tyres*, they are indirect. The measure being planned (or challenged) must be viewed in the context of the larger programme and policy, which will include other measures.

9.1.1 Public health

The *Alcoholic Beverages* Panel considered the policy goals and legislative background of the laws regulating the alcohol content of beer. The Panel recognized the possible goals relating to public health, public morals and revenue-raising and the supporting legislation.

> ...both the statements of the parties and the legislative history suggest that the alcohol content of beer has not been singled out as a means of favouring domestic producers over foreign producers... [T]here was no evidence ... that the choice of the particular level has the purpose or effect of affording protection to domestic production (GATT 1992, Para. 5.74).

The light beer and high-alcohol beer were not like products. Consequently, there was no impermissible differentiation between them.

In *Asbestos*, France's goal centred around responding to perceived health risks from the use of carcinogenic products. France wanted a "halt" to the spread of asbestos-related health risks. Given the evidence presented, including reports from international bodies, the AB agreed that the risk to human health was sufficient to enable the measure to fall within Article XX(b): "to protect human... life or health".

However, a health measure that appears to be within the scope of Article XX(b) does not automatically meet the criteria of the SPS Agreement. Any SPS measure must be designed to respond to a risk. The recognizable risks for human health, such as those from asbestos, are different from the health risks that might be caused by climate change. The former are more specific and have been recognized scientifically for many years. The many possible health risks from climate change are more general. At this point, arguably they are not as widely considered to be "well-known, and life-threatening" – the description of the asbestos

risk. That said, a statement in *Asbestos* and *Beef Hormones* is helpful: "responsible and representative governments may act in good faith on the basis of what, at a given time, may be a divergent opinion coming from qualified and respected sources", scientific sources that, at that time, may represent a divergent, but qualified and respected, opinion (WTO 2001a, Para. 178).

9.1.2 Protection of health and the environment

In *Brazil–Tyres*, where the broad goals related to the protection of the environment and consumer health, the goal and policy were designed to reduce the risks arising from the accumulation of waste tyres, which would have public health and environmental benefits. Specifically, the objective of the import ban was the reduction of the "exposure to the risks to human, animal or plant life or health arising from the accumulation of waste tyres" and "Brazil's chosen level of protection [was] the reduction of [these] risks ... to the maximum extent possible" (WTO 2007a, Para. 170). The AB commented that "few interests are more 'vital' and 'important' than protecting human beings from health risks, and that protecting the environment is no less important".

It is more difficult to devise a biofuels-related plant-protection policy that might fall within Article XX(b). Although the choice of and preference for certain plant feedstocks are important decisions, the choices are not related to a risk to plant health.

9.1.2.1 "Necessary"

Several of the exceptions possible under Article XX contain their own criteria. Probably the necessity test in Article XX(b) is one of the most important and the most keenly watched in disputes. For example, in disputes about food safety and environmental protection, there is a requirement that the measure be "necessary" – but not necessarily essential – to achieve the intended goal. How close to essential varies in the weighing and balancing, but in designing a certification programme the view of one report is guidance: a "necessary" measure is, in this continuum, located significantly closer to the pole of "indispensable" than to the opposite pole of simply "making a contribution to" (WTO 2001b, Para. 141). The word is strictly construed and the test is difficult to meet.

For health measures, if this analysis yields a preliminary conclusion that the measure is "necessary", then this result must be confirmed by "comparing the measure with possible alternatives, which may be less trade restrictive while providing an equivalent contribution to the achievement of the objective. This comparison should be carried out in the light of the importance of the interests or values at stake" (WTO 2001b, Para. 174).

In the biofuels context, the contribution of the promotion of biofuels and a certification programme to health and safety might not be evident immediately. The AB recognized that, even in the face of an import ban, there may be long-term contributions:

> We recognize that certain complex public health or environmental problems may be tackled only with a comprehensive policy comprising a multiplicity of interacting measures. In the short term, it may prove difficult to isolate the contribution to public health or environmental objectives of one specific measure from those attributable to the other measures that are part of the same comprehensive policy. Moreover, the results obtained from certain actions – for instance, measures adopted in order to attenuate global warming and climate change, or certain preventive actions to reduce the incidence of diseases that may manifest themselves only after a certain period of time – can only be evaluated with the benefit of time (WTO 2007a, Para. 151).

9.1.3 Conservation of natural resources

As the AB observed in *US–Shrimp*, WTO Members retained GATT Article XX(g) from the GATT 1947 without alteration after the conclusion of the Uruguay Round, being "fully aware of the importance and legitimacy of environmental protection as a goal of national and international

policy" (WTO 1998b, Para. 129). Article XX(g) of the GATT 1994 permits Members, subject to certain conditions, to take measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption". It is well established that Article XX(g) is an exception in relation to which the responding party bears the burden of proof (WTO 1998, Para. 157; WTO 1997; GATT 1989, Para. 5.27; GATT 1992, Paras 5.43 and 5.52; WTO 1996b, Para. 6.20). Thus, by authorizing in Article XX(g) measures for environmental conservation, an important objective referred to in the Preamble to the WTO Agreement, Members implicitly recognized that the implementation of such measures would not be discouraged simply because Article XX(g) constitutes a defence to otherwise WTO-inconsistent measures.

The EU has acknowledged that requiring Members to pursue environmental measures through Article XX(g), an exception provision, may be logical because "the WTO Agreement is not an environmental agreement and...it contains no positive regulation of environmental matters" (WTO 2004, Para. 96).

9.2 The GATT Article XX Chapeau

Meeting the criteria of the Article XX subparagraphs is the first step in the analysis. The second step is to address the chapeau, which contains additional criteria that determine whether a biofuels certification programme falls within an Article XX exception. The criteria in the chapeau concern how the measure is applied; they do not concern the policy but are interpreted in the context of the policy.

The text of the Article XX chapeau reads:

> Subject to the requirement that such 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, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of [e.g. Article XX(g) environmental or Article XX(b) health] measures... [author's italics].

9.2.1 Arbitrary or unjustifiable

The AB reports in *US-Gasoline*, *US-Shrimp* and *US-Shrimp* (*Article 21.5 – Malaysia*) show that the analysis of whether the application of a measure results in arbitrary or unjustifiable discrimination should focus on the cause of the discrimination, or the rationale put forward to explain its existence. In *Gasoline* and *Shrimp*, the AB found that the application of the measure resulted in arbitrary or unjustifiable discrimination without a legitimate cause or rationale under GATT Article XX(g).

In the *Brazil-Tyres* dispute, the AB rejected a rationale for discrimination between Common Market of the South (MERCOSUR) and non-MERCOSUR countries based on the obligation to comply with a regional (MERCOSUR) arbitral ruling. Compliance with the regional prohibition against new trade restrictions was unrelated to the aim of Subparagraph (g).

The effects of the discrimination may be a relevant factor for determining whether the cause or rationale of the discrimination is acceptable or defensible and, ultimately, whether the discrimination is justifiable (WTO 2007a, Para. 230). Even a rational decision might be "arbitrary or unjustifiable" when its rationale bears no relationship to the objective of the measure or "goes against" it.

9.2.2 Disguised trade restriction

Brazil-Tyres concerned an import ban, the most obvious and restrictive of trade measures. The ban was applied only to imports from non-MERCOSUR suppliers, pitting the constraints of the WTO against those of MERCOSUR (WTO 2007a, Paras 141–144). It could not pass muster.

Part of the analysis is whether there is an acceptable alternative measure that is less trade-restrictive than the measure at

issue but that maintains the desired level of protection with respect to the objective and is "reasonably available". An alternative that entails prohibitive costs or substantial technical difficulties is not reasonably available (WTO 2005c). On the other hand, administrative difficulties are not a justification for refusing an alternative (WTO 1996b, c).

An import ban can be an acceptable material contribution to achieving an important environmental goal and to health, as in *Tyres*. The import ban in *Tyres* was a vital part of the plan to reduce waste from retreaded tyres.

> Over time, this comprehensive regulatory scheme is apt to induce sustainable changes in the practices and behaviour of the domestic retreaders, as well as other actors, and result in an increase in the number of retreadable tyres in Brazil and a higher rate of retreading of domestic casings in Brazil. Thus, the Import Ban appears to us as one of the key elements of the comprehensive strategy designed by Brazil to deal with waste tyres, along with the import ban on used tyres and the collection and disposal scheme established by CONAMA Resolution 258/1999, as amended in 2002 (WTO 2007a, Para. 154).

The steps in the analysis by the panel were approved by the AB (WTO 2007a, Paras 148–149). The panel had examined several facts, hypotheses and scenarios before reaching its conclusion that the import ban may make a contribution and can result in a lessening of exposure to the targeted health risks. It had considered the impact of the replacement of imported retreaded tyres with new tyres on the reduction of waste; whether imported retreaded tyres would be replaced with domestically retreaded tyres, which led it to examine whether domestic used tyres can be and are being retreaded in Brazil; and whether the reduction in the number of waste tyres would contribute to a reduction of the risks to human, animal and plant life and health.

10. LOCAL GOVERNMENTS AND BIOFUELS CERTIFICATION

Local governments are increasingly involved with attempts to reduce GHG emissions and their effects on global warming. The approach of several local governments has been to promote, through procurement, the use of biofuels, usually because of environmental concerns. Under several WTO agreements, a central government can be held responsible for the policies and programmes of its constituent territories and for their manner of implementing central government measures. Consequently, it is necessary for a central government to monitor and influence local measures and to prepare federal measures that can be monitored and controlled continuously.

Many local governments impose their own targets for CO_2 emissions and low-carbon vehicles. Other local biofuels programmes are in the nature of government procurement, requiring government agencies to use or to purchase blended fuels. Certification under California's Renewables Portfolio Standard Program is worth considering. The application form for biodiesel applicants seeks information about the biodiesel feedstock, for example biomass. A biomass applicant must certify that the source of the facility's fuel qualifies as a biomass as specified in the definition of biomass in the Overall Program Guidebook. A facility that uses biomass is eligible for the renewable portfolio standard programme if it meets any other eligibility requirement.

California's certification scheme operates under the California Renewables Portfolio Standard Program (Yacobucci 2008).

The provisions of the TBT Agreement apply to local government bodies, described as states, provinces, Länder, cantons, municipalities and others, as well as their ministries, departments or any body subject to the control of such a government in respect of the activity in question.[31] The 50 states in the USA, including California, provinces in Canada, German Länder and Australian states clearly are local governments.[32] The principal obligation is placed on the central government. For example, in the preparation, adoption and application of technical regulations by local government bodies, a WTO Member "shall take such reasonable measures as may be available to them to ensure compliance" by local governments with the rules concerning the preparation, adoption and application of technical regulations, with special provisions concerning notifications.[33] As a point of emphasis, a Member is "fully responsible under this Agreement for the observance of all provisions of Article 2". Each must "formulate and implement positive measures and mechanisms in support of the observance of the provisions of Article 2 by other than central government bodies".[34]

Almost the same approach is taken in Article 7 of the TBT Agreement, regarding local conformity assessment procedures.

11. OTHER APPROACHES TO BIOFUELS CERTIFICATION

The previous discussion focuses on designing a national biofuels certification programme in a manner that meets the requirements of the principal WTO rules. Several additional options are presented in this section. International standardization in some form is one option. Harmonization, equivalence and mutual recognition are three gradations of how governments may cooperate around a standard. Although harmonization is largely multilateral, equivalence and mutual recognition are often bilateral arrangements. The TBT and SPS agreements encourage harmonization and reward it with special trade inferences. Other possibilities exist under international agreements, less often used GATT Article XX exceptions such as the Kimberly Process Waiver, and the Generalized System of Preferences.

11.1 Harmonization

The most obvious multilateral approach is to seek regional or multilateral agreement about what and when to certify and to a certification procedure. The usual drawback is that the process of reaching a multiparty agreement is lengthy and could easily last several years. For the elements of a multilateral certification programme regarding compliance with a biofuels content or biofuels input rule, for example, the United Nations Environment Program might be asked to coordinate. For certification regarding biofuels/food security or food safety links, the obvious possibilities are the FAO or its Codex Alimentarius Commission. For a multilateral approach that is developed by the private sector with some government involvement, the ISO provides a possibility.

Article 2:4 of the TBT Agreement reads:

> Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.[35]

The SPS Agreement in Article 3.2 rewards harmonization by saying that those measures "shall be deemed to be necessary...and presumed to be consistent" with the Agreement and the WTO 1994.

11.2 Equivalence

Multilateral and other agreements to recognize another country's certification process as equivalent are another possibility. They are equivalent in achieving the stated goals or policies but are not identical. The SPS specifically mentions equivalence in a bilateral context, but the guidelines for equivalence agreements may apply multilaterally or regionally.

11.3 Mutual Recognition

Mutual recognition can occur even when the certification systems are not equivalent. Each participating government "recognizes" or accepts the measure or procedure of the other. At the international level, this occurs only after lengthy negotiations. Mutual recognition is part of EU law and was included in Article 13 of its proposal for a renewable energy directive. It said that Member States must develop certification schemes for installers of small-scale biomass (equipment). Those schemes must be based on the criteria laid down in an Annex: "Each Member State shall recognise certification awarded by other Member States in accordance with these criteria."

11.4 Other International Agreements

Governments are free to enter into international, regional and bilateral agreements pursuant to law or on their own authority. For example, Western Hemisphere energy cooperation to improve energy efficiency is authorized by legislation in the USA (42 USC 16341). Within the WTO context and the Enabling Clause, it is possible for developing countries to agree among themselves to the mutual reduction or elimination of tariffs and, "in accordance with criteria or conditions which may be prescribed by the CONTRACTING PARTIES, for the mutual reduction or elimination of non-tariff measures, on products imported from one another". In the environmental area, the swordfish dispute between the EC and Chile illustrates the difficulties of achieving a multilateral accord (here about the conservation of fish stocks), as well as the possibility of using both the Law of the Sea tribunal and WTO dispute settlement (WTO 2007b), make it hard to have confidence in this option, unless it concerns a commercially insignificant product.

Another model is the Memorandum of Understanding among the Caribbean community, Inter-American Development Bank, Inter-American Institute for cooperation in Agriculture, Organization of American States and Guyana, which is intended to establish and support regional renewable energy, energy efficiency and a bioenergy action programme.

Brazil supports an international effort to create a biofuels standard (BRS 2007; Tripartite Task Force 2007), which could also include certification. So does the EU:

> It is in the interest of the Community to encourage the development of multilateral and bilateral agreements, and voluntary international or national schemes setting standards for the production of sustainable biofuels and other bioliquids, and certifying that production of biofuels and other bioliquids meets those standards. For that reason, provision should be made to decide that such agreements or schemes provide reliable evidence and data, provided that they meet adequate standards of reliability, transparency and independent auditing.[36]

11.5 GATT Article XX(h) Agreements[37]

The days of commodity agreements with economic provisions and quotas have ended, and yet an intergovernmental agreement remains possible. An agreement about biofuels, perhaps as a protocol to a post-Kyoto accord, could include certification provisions. To conform to WTO rules, it would be subject to Article XX(h), which applies to measures linked to a WTO-approved intergovernmental commodity agreement.[38]

11.6 GATT Article XXV Waivers: The Kimberly Process Waiver

Recourse to Article XXV is another possibility. The text reads:

> In exceptional circumstances not elsewhere provided for in this Agreement, the CONTRACTING PARTIES may waive an obligation imposed upon a contracting party by this Agreement; *Provided* that any such decision shall be approved by a two-thirds majority of the votes cast and that such majority shall comprise more than half of the contracting parties. The CONTRACTING PARTIES may also by such a vote
>
> (i) define certain categories of exceptional circumstances to which other voting requirements shall apply for the waiver of obligations, and
>
> (ii) prescribe such criteria as may be necessary for the application of this paragraph.[39]

A waiver would require the WTO Members, as a group, to approve the certification programme. Rarely has a measure as narrow as a national certification measure or programme been taken through the political rigours needed to obtain

a waiver. The closest example might be the 2003 waiver for trade restrictions on conflict diamonds in connection with the Kimberly Process Certification Scheme for Rough Diamonds. The background to the waiver discussions included General Assembly and Security Council resolutions. Some of this background is reflected in the preamble to the waiver decision, such as "Recognizing the extraordinary humanitarian nature of this issue and the devastating impact of conflicts fuelled by the trade in conflict diamonds on the peace, safety and security of people in affected countries and the systematic and gross human rights violations that have been perpetrated in such conflicts..."

The Kimberly Process waiver exempted the participants from MFN treatment (Article I:1), elimination of quantitative restrictions (Article XI:1) and non-discriminatory administration of quantitative restrictions (Article XIII:1). The waiver applied to import prohibitions necessary to prohibit the import of rough diamonds from non-participants in the Kimberley Process Certification Scheme consistent with the Kimberley Process Certification Scheme and permitted coverage for later participants that desire to be covered by the waiver and that notify the Council for Trade in Goods (WTO 2003).

11.7 The Generalized System of Preferences and the Enabling Clause

Certification could be one of the preconditions for GSP eligibility, provided that the requirements of the Enabling Clause (GATT 1979) are met. Like GATT Article XX, the Enabling Clause operates as an "exception" to Article I:1 (WTO 2004, Para. 90). "It is only at this latter stage that a final determination of consistency with the Enabling Clause or inconsistency with Article I:1 can be made" (WTO 2004, Para. 101). As stated by the AB, the Enabling Clause is among the "positive efforts" called for in the Preamble to the WTO Agreement to be taken by developed-country Members to enhance the "economic development" of developing-country Members (GATT 1979, Para. 92). According to *EC-GSP*, the importing government may differentiate among developing countries – suppliers of palm-based ethanol versus suppliers of sugar-based ethanol– so long as all those similarly situated are treated the same. The comparison probably focuses on the circumstances of the suppliers rather than on the products they supply.

The exempted measures may be preferential tariff treatment, [d]ifferential and more favourable treatment with respect to the provisions of the General Agreement concerning non-tariff measures governed by [e.g. a WTO agreement such as the TBT Agreement rules about local governments]", regional or global arrangements entered into amongst less-developed contracting parties for the mutual reduction or elimination of tariffs and, in accordance with criteria or conditions that may be prescribed by the Contracting Parties for the mutual reduction or elimination of non-tariff measures on products imported from one another and special provisions for the least-developed countries (WTO 2004, Para. 147).

12. CONCLUSIONS

The usual goals of biofuels policy – energy security, climate change mitigation, rural development and/or diversification of agricultural production – are commendable. Yet, as this paper has attempted to illustrate, in employing certification as a tool for implementing the policy, regulators must bear in mind and apply many rules of international trade. Several guidelines run throughout them. One concept is that the basic rules of international trade (such as non-discrimination, fairness, transparency) must be adhered to. Those rules exist in each agreement, although in varying language. The TBT Agreement commits members to act in ways that mirror general trade rules. For example, "...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".

Another concept is the emphasis on international harmonization, by the encouragement of the use of internationally agreed texts. For regulators, a first step might be to determine whether there is an international text or rule about the preferred policy or procedure. Given the strong preference for international harmonization, if a text exists, then the extent of the commitment to rely on it must be determined. The specific language of the WTO agreements about harmonization varies somewhat from one agreement to another.

A third concept running through the agreements is the direction that texts be written with certain emphases, such as a preference for standards based on product requirements in terms of performance rather than design or descriptive characteristics.

The details of the biofuels policy should help to justify the choice of targeted products, processes and benefits, and whether there will be a product focus (such as a percentage biofuels content for gasoline, or research support for next-generation products) or a production focus (a ban on imports of biofuels from deforested land, or support for biofuels made using a particular process). The former is a standard goods-based approach. The latter involves a PPM, which is usually looked upon with some scepticism and a belief that it will be a disguised protectionist measure. A detailed assessment must be made about the state of product development and the market in order to decide which products are like and in competition. There are strict rules against discrimination throughout the WTO agreements. Again, their language differs. Again, as a reminder, the provisions overlap.

A written statement of the criteria to receive support or to qualify for a benefit is a document and so must conform to both Article III and the TBT Agreement. The proper product comparison (competition) and non-discrimination are key. The testing, questioning, filings and other requirements that an applicant for the benefits undergoes – as well as labelling – form a procedure that is most like a TBT conformity assessment procedure, which is detailed in the TBT Agreement. The benefit that is being given might be an incentive, an opportunity to qualify to bid for a government procurement, or a label.

Most of the WTO rules are written for central governments, while others may apply to local governments. The TBT Agreement and the Agreement on Government Procurement do address local entities. Often the central government is held to insist on compliance by (or to deter non-compliance by) the local government.

There are several exceptions to the WTO rules, mostly under Article XX, that might protect an action that is incompatible with a WTO rule. Yet a better tactic might be to attempt to reach a harmonized approach or an international agreement. The Kimberly Process certification scheme might be a model.

ANNEX 1: ARTICLE I – GENERAL MOST-FAVOURED-NATION TREATMENT

1. With respect to customs duties and charges of any kind imposed on or in connection with importation or exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III,* any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties...

ANNEX 2: ARTICLE III – NATIONAL TREATMENT ON INTERNAL TAXATION AND REGULATION

1. The contracting parties recognize that internal taxes and other internal charges, and laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products, and internal quantitative regulations requiring the mixture, processing or use of products in specified amounts or proportions, should not be applied to imported or domestic products so as to afford protection to domestic production.

2. 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.

3. With respect to any existing internal tax which is inconsistent with the provisions of paragraph 2, but which is specifically authorized under a trade agreement, in force on April 10, 1947, in which the import duty on the taxed product is bound against increase, the contracting party imposing the tax shall be free to postpone the application of the provisions of paragraph 2 to such tax until such time as it can obtain release from the obligations of such trade agreement in order to permit the increase of such duty to the extent necessary to compensate for the elimination of the protective element of the tax.

4. The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use. The provisions of this paragraph shall not prevent the application of differential internal transportation charges which are based exclusively on the economic operation of the means of transport and not on the nationality of the product.

5. No contracting party shall establish or maintain any internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions which requires, directly or indirectly, that any specified amount or proportion of any product which is the subject of the regulation must be supplied from domestic sources. Moreover, no contracting party shall otherwise apply internal quantitative regulations in a manner contrary to the principles set forth in paragraph 1.

6. The provisions of paragraph 5 shall not apply to any internal quantitative regulation in force in the territory of any contracting party on July 1, 1939, April 10, 1947, or March 24, 1948, at the option of that contracting party; Provided that any such regulation which is contrary to the provisions of paragraph 5 shall not be modified to the detriment of imports and shall be treated as a customs duty for the purpose of negotiation.

7. No internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions shall be applied in such a manner as to allocate any such amount or proportion among external sources of supply.

8. (a) The provisions of this Article shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of products purchased for governmental purposes and not with a view to commercial resale or with a view to use in the production of goods for commercial sale.

   (b) The provisions of this Article shall not prevent the payment of subsidies exclusively to domestic producers, including payments to domestic producers derived from the proceeds of internal taxes or charges applied consistently with the provisions of this Article and subsidies effected through governmental purchases of domestic products.

9. The contracting parties recognize that internal maximum price control measures, even though conforming to the other provisions of this Article, can have effects prejudicial to the interests of contracting parties supplying imported products. Accordingly, contracting parties applying such measures shall take account of the interests of exporting contracting parties with a view to avoiding to the fullest practicable extent such prejudicial effects.

10. The provisions of this Article shall not prevent any contracting party from establishing or maintaining internal quantitative regulations relating to exposed cinematograph films and meeting the requirements of Article IV.

ANNEX 3: ARTICLE XX – GENERAL EXCEPTIONS

Subject to the requirement that such 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, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

(a) necessary to protect public morals;

(b) necessary to protect human, animal or plant life or health;

(d) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to customs enforcement, the enforcement of monopolies operated under paragraph 4 of Article II and Article XVII, the protection of patents, trademarks and copyrights, and the prevention of deceptive practices;

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption;

(h) undertaken in pursuance of obligations under any intergovernmental commodity agreement which conforms to criteria submitted to the CONTRACTING PARTIES and not disapproved by them or which is itself so submitted and not so disapproved;

ANNEX 4: ARTICLE XXV – JOINT ACTION BY THE CONTRACTING PARTIES

1. Representatives of the contracting parties shall meet from time to time for the purpose of giving effect to those provisions of this Agreement which involve joint action and, generally, with a view to facilitating the operation and furthering the objectives of this Agreement. Wherever reference is made in this Agreement to the contracting parties acting jointly they are designated as the CONTRACTING PARTIES.

3. Each contracting party shall be entitled to have one vote at all meetings of the CONTRACTING PARTIES.

4. Except as otherwise provided for in this Agreement, decisions of the CONTRACTING PARTIES shall be taken by a majority of the votes cast.

5. In exceptional circumstances not elsewhere provided for in this Agreement, the CONTRACTING PARTIES may waive an obligation imposed upon a contracting party by this Agreement; Provided that any such decision shall be approved by a two-thirds majority of the votes cast and that such majority shall comprise more than half of the contracting parties. The CONTRACTING PARTIES may also by such a vote

   (i) define certain categories of exceptional circumstances to which other voting requirements shall apply for the waiver of obligations, and

   (ii) prescribe such criteria as may be necessary for the application of this paragraph.

ANNEX 5: THE ENABLING CLAUSE – DIFFERENTIAL AND MORE FAVOURABLE TREATMENT RECIPROCITY AND FULLER PARTICIPATION OF DEVELOPING COUNTRIES

Decision of 28 November 1979 (L/4903)

Following negotiations within the framework of the Multilateral Trade Negotiations, the CONTRACTING PARTIES decide as follows:

1. Notwithstanding the provisions of Article I of the General Agreement, contracting parties may accord differential and more favourable treatment to developing countries,[40] without according such treatment to other contracting parties.

2. The provisions of paragraph 1 apply to the following[41]:

   (a) Preferential tariff treatment accorded by developed contracting parties to products originating in developing countries in accordance with the Generalized System of Preferences[42],

   (b) Differential and more favourable treatment with respect to the provisions of the General Agreement concerning non-tariff measures governed by the provisions of instruments multilaterally negotiated under the auspices of the GATT;

   (c) Regional or global arrangements entered into amongst less-developed contracting parties for the mutual reduction or elimination of tariffs and, in accordance with criteria or conditions which may be prescribed by the CONTRACTING PARTIES, for the mutual reduction or elimination of non-tariff measures, on products imported from one another;

   (d) Special treatment on the least developed among the developing countries in the context of any general or specific measures in favour of developing countries.

3. Any differential and more favourable treatment provided under this clause:

   (a) shall be designed to facilitate and promote the trade of developing countries and not to raise barriers to or create undue difficulties for the trade of any other contracting parties;

   (b) shall not constitute an impediment to the reduction or elimination of tariffs and other restrictions to trade on a most-favoured-nation basis;

   (c) shall in the case of such treatment accorded by developed contracting parties to developing countries be designed and, if necessary, modified, to respond positively to the development, financial and trade needs of developing countries.

4. Any contracting party taking action to introduce an arrangement pursuant to paragraphs 1, 2 and 3 above or subsequently taking action to introduce modification or withdrawal of the differential and more favourable treatment so provided shall[43]:

   (a) notify the CONTRACTING PARTIES and furnish them with all the information they may deem appropriate relating to such action;

   (b) afford adequate opportunity for prompt consultations at the request of any interested contracting party with respect to any difficulty or matter that may arise. The CONTRACTING PARTIES shall, if requested to do so by such contracting party, consult with all contracting parties concerned with respect to the matter with a view to reaching solutions satisfactory to all such contracting parties.

5. The developed countries do not expect reciprocity for commitments made by them in trade negotiations to reduce or remove tariffs and other barriers to the trade of developing countries, i.e., the developed countries do not expect the developing countries, in the course of trade negotiations, to make contributions which are inconsistent with their individual development, financial and trade needs. Developed contracting parties shall therefore not seek, neither shall less-developed contracting parties be required to make, concessions that are inconsistent with the latter's development, financial and trade needs.

6. Having regard to the special economic difficulties and the particular development, financial and trade needs of the least-developed countries, the developed countries shall exercise the utmost restraint in seeking any concessions or contributions for commitments made by them to reduce or remove tariffs and other barriers to the trade of such countries, and the least-developed countries shall not be expected to make concessions or contributions that are inconsistent with the recognition of their particular situation and problems.

7. The concessions and contributions made and the obligations assumed by developed and less-developed contracting parties under the provisions of the General Agreement should promote the basic objectives of the Agreement, including those embodied in the Preamble and in Article XXXVI. Less-developed contracting parties expect that their capacity to make contributions or negotiated concessions or take other mutually agreed action under the provisions and procedures of the General Agreement would improve with the progressive development of their economies and improvement in their trade situation and they would accordingly expect to participate more fully in the framework of rights and obligations under the General Agreement.

8. Particular account shall be taken of the serious difficulty of the least-developed countries in making concessions and contributions in view of their special economic situation and their development, financial and trade needs.

9. The contracting parties will collaborate in arrangements for review of the operation of these provisions, bearing in mind the need for individual and joint efforts by contracting parties to meet the development needs of developing countries and the objectives of the General Agreement.

ANNEX 6: THE KIMBERLY CERTIFICATION WAIVER

Waiver Concerning Kimberley Process Certification Scheme for Rough Diamonds: Communication from Australia, Brazil, Canada, Israel, Japan, Korea, Philippines, Sierra Leone, Thailand, United Arab Emirates and the USA – Revision

The following draft waiver decision, dated 11 November 2002, has been received from the Permanent Mission of Canada on behalf of Australia, Brazil, Canada, Israel, Japan, Korea, Philippines, Sierra Leone, Thailand, United Arab Emirates and the United States.

The General Council,

Having regard to the Guiding Principles to be followed in considering applications for waivers adopted on 1 November 1956 (BISD 5S/25), the Understanding in Respect of Waivers of Obligations under the General Agreement on Tariffs and Trade 1994, and paragraphs 3 and 4 of Article IX of the Marrakesh Agreement Establishing the World Trade Organization (hereinafter "WTO Agreement");

Conducting the function of the Ministerial Conference in the interval between meetings pursuant to paragraph 2 of Article IV of the WTO Agreement;

Taking note of the request of the Members listed in the Annex for a waiver from paragraphs 1 of Article XI, 1 of Article I, and 1 of Article XIII of the GATT 1994 with respect to their domestic measures to regulate the international trade in rough diamonds consistent with the Kimberley Process Certification Scheme;

Noting that this Decision does not prejudge the consistency of domestic measures taken consistent with the Kimberley Process Certification Scheme with provisions of the WTO Agreement, including any relevant WTO exceptions, and that the waiver is granted for reasons of legal certainty;

Recognizing that the trade in conflict diamonds is a matter of serious international concern, which can be directly linked to the fuelling of armed conflict, the activities of rebel movements aimed at undermining or overthrowing legitimate governments, and the illicit traffic in, and proliferation of, armaments, especially small arms and light weapons;

Recognizing the extraordinary humanitarian nature of this issue and the devastating impact of conflicts fuelled by the trade in conflict diamonds on the peace, safety and security of people in affected countries and the systematic and gross human rights violations that have been perpetrated in such conflicts;

Noting the relevant resolutions of the United Nations Security Council under Chapter VII of the United Nations Charter and the Kimberley Process Certification Scheme Participants' intent to contribute to and support the implementation of the measures provided for in those resolutions;

Further noting that the Kimberley Process Certification Scheme responds to the call of the United Nations General Assembly to give urgent and careful consideration to devising effective and pragmatic measures to address the problem of conflict diamonds;

Further noting the United Nations Security Council resolution S/RES/1459(2003) supporting the Kimberley Process Certification Scheme;

Further recognizing the interests of many WTO Members in the legitimate trade in rough diamonds;

Noting the assurances given by Members listed in the Annex that they intend, upon request, to enter promptly into consultations with any interested Member with respect to any difficulty or matter that may arise as a result of their domestic implementation of the Kimberley Process Certification Scheme for rough diamonds;

Considering that, in light of the foregoing, exceptional circumstances exist justifying a waiver from paragraphs 1 of Article XIII, 1 of Article I, and 1 of Article XI of the GATT 1994 with respect to the trade in rough diamonds;

Decides as follows:

1. With respect to the measures taken by a Member listed in the Annex necessary to prohibit the export of rough diamonds to non-Participants in the Kimberley Process Certification Scheme consistent with the Kimberley Process Certification Scheme, paragraphs 1 of Article I; 1 of Article XI; and 1 of Article XIII of the GATT 1994 are waived as of 1 January 2003 until 31 December 2006.

2. With respect to the measures taken by a Member listed in the Annex necessary to prohibit the import of rough diamonds from non-Participants in the Kimberley Process Certification Scheme consistent with the Kimberley Process Certification Scheme, paragraphs 1 of Article I; 1 of Article XI; and 1 of Article XIII of the GATT 1994 are waived as of 1 January 2003 until 31 December 2006.

3. This waiver also applies in respect of measures implementing the Kimberley Process Certification Scheme taken by any Member not listed in the Annex to this Decision that desires to be covered by the present waiver and that notifies the Council for Trade in Goods accordingly.

4. Members benefiting from this waiver should notify their measures implementing the Kimberley Process Certification Scheme to the Council for Trade in Goods.

5. Members benefiting from this waiver, upon request, intend to enter promptly into consultations with any interested Member with respect to any difficulty or matter that may arise as a result of the implementation of the measures regulating the export or import of rough diamonds covered by this waiver; where a Member considers that any benefit accruing to it under the GATT 1994 may be or is being impaired unduly as a result of such implementation, such consultations shall examine the possibility of action for a satisfactory adjustment of the matter.

6. Any Member that considers that measures regulating the import or export of rough diamonds covered by this waiver are being applied inconsistently with this waiver or that any benefit accruing to it under the GATT 1994 may be or is being impaired unduly as a result of measures to implement the Kimberley Process Certification Scheme covered by this waiver and that considers that consultations have proved unsatisfactory, may bring the matter before the General Council, which will examine it promptly and will formulate any recommendations that it judges appropriate.

7. This waiver shall not preclude the right of affected Members to have recourse to Articles XXII and XXIII of the GATT 1994.

NOTES

1 WTO (2007), AB-2007-4, Para. 140.

2 There is some very weak support for a less economic approach to the Article III analysis. The concurring opinion in *Asbestos* questioned the necessity or appropriateness of adopting a "fundamentally" economic interpretation of the "likeness" of products under Article III:4 of the GATT 1994 "does not appear free from substantial doubt". Moreover, in future concrete contexts, the line between a "fundamentally" and "exclusively" economic view of "like products" under Article III:4 may well prove very difficult, as a practical matter, to identify (Para. 154). *Japan–Alcoholic Beverages* rejected the "aim-and-effect" test for analysing like products under Article III:2, as did the *US–Alcoholic Beverages* panel. Under that test, a panel could consider whether there was a protectionist aim or effect. The latter panel said "once products are designated as like products, a regulatory product differentiation, e.g. for standardization or environmental purposes, becomes inconsistent with Article III even if the regulation is not 'applied ... so as [to] afford protection to domestic production'". The AB agreed and subsequently extended its rejection to an Article III:1 analysis in *EC–Bananas*.

3 "The application of paragraph 1 to internal taxes imposed by local governments and authorities with the territory of a contracting party is subject to the provisions of the final paragraph of Article XXIV. The term 'reasonable measures' in the last-mentioned paragraph would not require, for example, the repeal of existing national legislation authorizing local governments to impose internal taxes which, although technically inconsistent with the letter of Article III, are not in fact inconsistent with its spirit, if such repeal would result in a serious financial hardship for the local governments or authorities concerned. With regard to taxation by local governments or authorities which is inconsistent with both the letter and spirit of Article III, the term 'reasonable measures' would permit a contracting party to eliminate the inconsistent taxation gradually over a transition period, if abrupt action would create serious administrative and financial difficulties." Ad Article III.

4 "We also see it as important to take into account that, since 1977, chrysotile asbestos fibres have been recognized internationally as a known carcinogen because of the particular combination of their molecular structure, chemical composition, and fibrillation capacity. In contrast, the Panel found that the PCG fibres 'are not classified by the WHO at the same level of risk as chrysotile'. The experts also confirmed, as the Panel reported, that current scientific evidence indicates that PCG fibres do 'not present the same risk to health as chrysotile' asbestos fibres" (WTO 2001a, Para. 135).

5 According to the UN Conference on Trade and Development (UNCTAD), "The development of a certification schemes is an involved process. It requires an independent third party to assess quality based on a predetermined set of principles. Principles are usually established as general starting points that describe the objective of certification. These objectives are then translated into measurable requirements by criteria. Testing then utilizes indicators or verifiers which serve as quantitative or qualitative minimum requirements for certification" (Zarrilli and Burnett 2008).

6 The EU Strategy document defines biomass as the "[b]iodegradable fraction of products, waste and residues from agriculture (including vegetal and animal substances), forestry and related industries, as well as the biodegradable fraction of industrial and municipal waste" (EC 2006a).

7 The Energy Independence and Security Act of 2007, Pub. Law 110–140.

8 "Globally the boom in this and other [biofuels] projects is causing growing concern about environmental damage and the part played by biofuels in pushing up food prices" (Friends of Ethiopia 2008).

9 There were several measures designed to support the local alcoholic beverage industry. In four states, brewers whose annual production did not exceed an indicated level could receive an excise tax credit based on annual production for specified quantities of beer sold. In Kentucky and Ohio, the credit was available only to in-state breweries. In four states, the excise tax rate was based on the origin of the product. In those states, a tax exemption was available for wine produced by in-state or domestic wineries. Other states determined the excise tax based on the use of local ingredients. In one state, a lower tax rate applied to wines in which a certain variety of grape was an ingredient.

10 See the discussion of like product below, including the discussion of the consumer preference analysis in Article III disputes about regulations (as opposed to taxes). See also the GATT panel report in *Coffee*. In both cases, the conclusions about consumer preferences are debatable.

11 The findings of this report were questioned in a letter to the *Financial Times* (Henderson 2009).

12 "As with all human activities, there are environmental impacts to be wary of. In the case of Indonesia, such impacts relate to the destruction of the natural habitats of species in Sumatra and Kalimantan, such as the Sumatra tiger, the orangutan, the elephant and the rhinoceros" (Trindade 2007).

13 An explanatory note to the TBT Agreement notes the differences in scope, terminology and text development in the WTO (and implicitly bodies such as Codex Alimentarius mentioned in WTO agreements) and non-governmental groups such as ISO: "The terms as defined in ISO/IEC Guide 2 cover products, processes and services. 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."

14 "[T]this does not mean that all internal measures covered by Article III:4 of the GATT 1994 'affecting' the 'sale, offering for sale, purchase, transportation, distribution or use' of a product are, necessarily, 'technical regulations' under the TBT Agreement" (WTO 2001a, Para. 71).

15 TBT Agreement, Annex 1, Section 1.

16 However, it must be remembered that Articles III:5 and III:7 prohibit an internal quantitative regulation relating to the mixture, processing or use of products in specified amounts or proportions requiring the use of domestic sources or allocating imports among external sources of supply.

17 Biomass Research and Development Act of 2000, 7 USC 8101 note.

18 The certification provision is contained in Section 944 of the 42 USC 16253.

19 Article III:2 makes an explicit reference to the non-discrimination principles of Article III:1: "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."

20 The scope of the term "like products" in the first sentence of Article III:2 affects, and is affected by, the scope of the phrase "directly competitive or substitutable" products in the second phrase of that provision. In *Japan–Alcoholic Beverages* (WTO 1996a), the conclusion was that the two separate obligations in the two phrases of Article III:2 must be interpreted in a harmonious manner that gives meaning to both.

21 In Howse's opinion, a WTO panel may consider the aim and effect of a regulatory PPM for the purpose of deciding whether differential treatment of PPM-compliant and non-compliant products is WTO-consistent (Howse and Regan 2000).

22 Public Law 109-58, Subtitle D.

23 This complaint followed the imposition of countervailing and antidumping duties on US biodiesel exports to the EU (ICTSD 2009).

24 7 USC 8111.

25 42 USC 15801 note.

26 7 USC 8101 note.

27 42 USC 16251.

28 Food, Consumer and Education Act of 2008, 7 USC 8701 note.

29 7 USC 8101.

30 See the Farm Security and Rural Investment Act of 2002, 7 USC 8102(h)(1).

31 TBT Agreement, Annex 1.

32 Although the EU Member States remain sovereign and benefit from subsidiarity, they are at the same time part of the EU. The UK, both a sovereign state and an EU Member State, aims to create a low-carbon transport system. Although they appear "local" in that sense, the relationship probably falls under the same constraints as did the centuries old (1516) German beer purity law mentioned in van Gend en Loos (Commission v Germany 1987). The TBT Agreement rules about local governments have not been applied directly to EU member States and most likely will not be. On the other hand, the French asbestos ban was the subject of *EC–Asbestos*.

33 TBT Agreement, Article 3.1.

34 TBT Agreement, Article 3.5.

35 The text for standards is similar, although its justifications for varying from an international standard include "an insufficient level of protection" as an additional possibility.

36 European Commission, Proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, Para. 42, Brussels, 23.1.2008, COM(2008) 19 final.

37 WTO Agreement, Preamble, first recital.

38 Article XX(h) excuses measures "undertaken in pursuance of obligations under any intergovernmental commodity agreement which conforms to criteria submitted to the CONTRACTING PARTIES and not disapproved by them or which is itself so submitted and not so disapproved".

39 The authentic text erroneously reads "sub-paragraph".

40 The words "developing countries" as used in this text are to be understood to refer also to developing territories.

41 It would remain open for the CONTRACTING PARTIES to consider on an ad hoc basis under the GATT provisions for joint action any proposals for differential and more favourable treatment not falling within the scope of this paragraph.

42 As described in the Decision of the CONTRACTING PARTIES of 25 June 1971, relating to the establishment of "generalized, non-reciprocal and non discriminatory preferences beneficial to the developing countries" (BISD 18S/24).

43 Nothing in these provisions shall affect the rights of contracting parties under the General Agreement

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