

Trade Law Clinic 2010

The EU's Renewable Energy Directive – consistent with WTO rules?

Malorie Schaus & Andreas Lendle

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Outline

Abbreviations	3
Introduction	4
Part I - Background and summary of Directive 2009/28/EC	5
Background	5
Sustainability criteria for biofuels	6
Greenhouse gas (GHG) emission saving	6
Land-use requirements	9
Other requirement	11
Consequences of the distinction between “sustainable” and “non-sustainable” biofuels and effects for biofuel producers	12
Part II –Consistency of the sustainability criteria with the GATT.....	15
Consistency with GATT Article III:4	15
Application of Art. III:4 - National Treatment (NT).....	15
Likeness.....	20
Is there less favourable treatment?	24
GATT Art. III:4: Conclusion	35
Consistency with GATT Article I (MFN Treatment)	36
In the alternative, consistency with GATT Article XI.....	39
Consistency with GATT Article XX (General Exceptions).....	41
Justification of exception with Article XX(b):.....	42
Justification of exception with Article XX(g):.....	47
Chapeau of Article XX:.....	51
Conclusion.....	57
Conclusion.....	57
Bibliography.....	58
Table of cases	60

Abbreviations

AB	Appellate Body
Art.	Article
Artt.	Articles
CAP	Common Agricultural Policy
DS	Dispute Settlement
EC	European Communities
ECIPE	European Centre for International Political Economy
Ed.	Edition
e.g.	exempli gratia (for example)
etc.	et cetera
EU	European Union
GATT	General Agreement on Tariffs and Trade
GHG	Greenhouse gas
HS	Harmonised System
ILO	International Labour Organization
incl.	including
MMPA	Marine Mammal Protection Act
MFN	Most-Favoured-Nation
p.	page
para.	paragraph
paras.	paragraphs
PPMs	Process and Production Methods
TBT	Technical Barriers to Trade
TED	Turtle Excluder Devices
USA/US	United States of America
WTO	World Trade Organization

Introduction

The European Union has adopted a very ambitious plan to increase the share of renewables in their energy consumption to 20% by 2020, including a 10% goal for the use of renewables in transport alone. Renewable energy could come from a variety of sources, but for transport the main source of renewable energy is biofuel.¹ The Renewable Energy Directive that sets these goals will therefore trigger a large increase in the consumption of biofuel in the EU. The debate about biofuel is well known. Critics argue that biofuels could have negative social implications because it could lead to an increase in food prices. This is particularly relevant for today's first generation biofuels, which are based on biomass that could also be used for food purposes, or on biomass that is produced on land otherwise suitable for food production. The environmental effects are also controversial. Although in principle CO₂-neutral, the use of biofuel never leads to a 100% reduction in greenhouse gas emissions compared to the use of fossil fuel and could in extreme cases even lead to an *increase* in emissions. To address the possible negative environmental concerns, the Directive lays out criteria that biofuels have to fulfil. These relate to the overall efficiency in terms of emission reductions, but also specify which type of land can be used to produce the biomass used for biofuel. These criteria apply to all biofuels used in the EU and will therefore penalize certain biofuels deemed unsustainable. Some critics have argued that making a distinction between biofuels based on such criteria were not compatible with WTO disciplines.

There is a range of other issues that need to be looked at in order to fully assess the effects and efficiency of the EU's biofuel policy. There are concerns that the effects on greenhouse gas emissions are small compared to the overall cost of such a large replacement of fossil fuel with biofuel. Negative social and environmental effects may also occur, despite the sustainability criteria. This paper is focussing on the legal issues. We do however refer to some other studies that take other perspectives and the reader may find it interesting to look at some of those as well.

¹ One could think of electrical cars using for example hydropower, but the share of electrical cars will remain negligible in the near future.

Part I - Background and summary of Directive 2009/28/EC

Background

Directive 2009/28/EC on the promotion of the use of energy from renewable sources (“the Directive”) has been adopted on 23 April 2009. This Directive has entered into force on 25 June 2009 and has to be implemented by the Member States by 5 December 2010. The EU Renewable Energy Directive pursues a dual objective of increased security of energy supply and reduced greenhouse gas emissions through replacing fossil fuel with renewables.²

This Directive is different from previous directives, such as Directive 2001/77/EC relating to the promotion of electricity produced from renewable energy sources in the internal electricity market and Directive 2003/30/EC concerning the promotion of the use of biofuels or other renewable fuels for transport, as it introduces legally binding targets for renewable energies at the EU level. The EU previous regulatory framework for use of renewable energy in the transport sector was relatively weak.

Directive 2009/28/EC lays out mandatory country-specific targets for each EU Member State for the overall share of energy that has to come from renewable sources by 2020. Targets vary widely between Member States (between 10% for Malta and 49% for Sweden) and are set such that a Community average of 20% will be reached compared to 1990 levels.³ This includes energy used for electricity generation, heating and cooling and transport. Biofuels not produced according to certain sustainability criteria will not be counted for the share of renewable energy in overall energy consumption.⁴ Lower country-specific targets will apply from 2011 on and increase in several steps until 2020.⁵

Art. 3.4 of the Directive sets a mandatory target of a 10% share of renewable energy used in *transport* for each Member State: “Each Member State shall ensure that the share of energy from renewable sources in all forms of transport in 2020 is at least 10 % of the final

² Preamble (1) ; Communication from the Commission, *Renewable Energy Road Map: Renewable energies in the 21st century: building a more sustainable future*, 10/01/2007.

³ Directive 2009/28/EC, Art. 3(1) and Part A of Annex V. Commission Staff Working Document, accompanying document to the Communication from the Commission: *Renewable Energy Road Map: Renewable energies in the 21st century: building a more sustainable future*, Impact Assessment, 10/01/2007, p. 6.

⁴ Directive 2009/28/EC, Art. 5(1).

⁵ Directive 2009/28/EC, Part B of Annex I.

consumption of energy in transport in that Member State.” A transfer of such obligations is possible between Member States.⁶

Sustainability criteria for biofuels

Art. 17 of the Directive defines two sets of criteria for biofuels to be deemed *sustainable* so that they can be counted for the fulfilment of mandatory targets for renewable energy use or for being eligible for financial support for the consumption of biofuels.⁷ These two main criteria that have to be fulfilled cumulatively:

Greenhouse gas (GHG) emission saving

The use of biofuels can lower GHG emissions – which is the main environmental rationale of their use, besides the fact that they are “renewable”. However, the production and processing of biofuel is not emission-free and could even reach similar emission levels as the use of fossil fuel. To fulfil the sustainability criteria, the percentage reduction of GHG emissions (in particular CO₂) through the use of a specific biofuel instead of fossil fuel has to be above a certain threshold. The Directive sets this threshold as follows:

Years	Threshold	Remarks
Today until 12/2016	35%	Applies from the beginning for biofuel produced by installations that came into operation <i>after</i> 23.1.2008 Applies from 1.4.2013 for biofuel produced by installations that were <i>already</i> in operation on 23.1.2008
From 2017	50%	Applies to all biofuels
From 2018	60%	For installations in which production started on or after 1.1.2017

Source: Directive 2009/28/EC Art. 17(2)

A minimum savings rate of 35% applies initially. However, there is a grace period for installations that are already in operation since at least 23.1.2008 or earlier, but this grace period will expire on 1.4.2013. From 2017 on, all biofuels will have to fulfil the 50% threshold. This threshold will then increase to 60% in 2018, but only for installations that started operating in 2017 or later. The method for the calculation of GHG emission savings is specified in Article 19(1) and Part C of Annex V.

⁶ Directive 2009/28/EC, Art. 6.

⁷ We will from here on only refer to « biofuels ». However, it should be kept in mind that the sustainability criteria also apply to bioliquids in general, i.e. to liquids produced from biomass that are used for other purposes other than for fuel (e.g. electricity generation or heating). Paragraph (67) of the Directive’s preamble states that « *the introduction of sustainability criteria for biofuels will not achieve its objective if those products that do not fulfil the criteria and would otherwise have been used as biofuels are used, instead, as bioliquids in the heating or electricity sectors. For this reason, the sustainability criteria should also apply to bioliquids in general.* »

1. Greenhouse gas emissions from the production and use of transport fuels, biofuels and bioliquids shall be calculated as:

$$E = e_{ec} + e_l + e_p + e_{td} + e_u - e_{sca} - e_{ccs} - e_{ccr} - e_{ee}$$

where

- E = total emissions from the use of the fuel;
 e_{ec} = emissions from the extraction or cultivation of raw materials;
 e_l = annualised emissions from carbon stock changes caused by land-use change;
 e_p = emissions from processing;
 e_{td} = emissions from transport and distribution;
 e_u = emissions from the fuel in use;
 e_{sca} = emission saving from soil carbon accumulation via improved agricultural management;
 e_{ccs} = emission saving from carbon capture and geological storage;
 e_{ccr} = emission saving from carbon capture and replacement; and
 e_{ee} = emission saving from excess electricity from cogeneration.

Emissions from the manufacture of machinery and equipment shall not be taken into account.

The total emissions are the sum of four main components: Emissions from (1) extraction and cultivation of raw materials, (2) land-use change, (3) processing and (4) transport & distribution. Emissions from the final use of biofuel are considered to be zero.⁸ Deductions are made for soil carbon accumulation via improved agricultural management, for carbon capture (a technology that is still under development) and for co-generation of electricity.

These emissions are then compared with emissions of fossil fuel to calculate the emission saving. This benchmark value is for now set at 83.8 gCO_{2eq}/MJ⁹. That means that to fulfil the threshold of 35% GHG savings, the emissions from a specific type of biofuel shall not be higher than 65% of the benchmark (i.e. 54.5 gCO_{2eq}/MJ) to fulfil the 35% savings requirement applicable until 2017.

Annex V of the Directive specifies in detail how GHG emissions will be calculated for a specific biofuel product, but it also provides default values for some emission components for a variety of biofuels that can be used under specific circumstances:

⁸ This makes sense because the GHG emitted from burning biofuel are equivalent to the CO₂ captured by the plant when it was growing – which is the fundamental reason why the use of biofuel can reduce GHG emissions. Obviously, carbon captured by the plant during cultivation is not deducted from total CO₂ emissions.

⁹ Directive 2009/28/EC, point 19 of Part C of Annex V. The unit is gram of CO₂-equivalents (e.g. methane emissions count more than CO₂ emissions) per Megajoule (a measurement for the amount of energy that the fuel contains).

- If there are no emissions from land use change compared to land use in January 2008 and if default values for overall GHG emissions are specified in Annex V, then this value will be used.¹⁰
- An actual value can be calculated as specified in Annex V.¹¹
- A mixture of default values for some factors and calculated values for other factors can also be used.¹²

There is thus a choice between these options. This means that if the default emission value is too high for a type of biofuel (i.e. the “saving rate” is too low), then one could calculate the actual value. Table 1 shows different default values for some of the most important biofuels:

Table 1. Default values for some biofuels

Type of biofuel	Default GHG saving rate	Default emissions (no land-use change)	Default value for cultivation	Default value for processing (incl. co-generation)	Default value for transport and distribution
	%	CO ₂ eq/MJ	CO ₂ eq/MJ	CO ₂ eq/MJ	CO ₂ eq/MJ
Bio-Ethanol					
Sugar beet ethanol	52%	40	12	26	2
Sugar cane ethanol	71%	24	14	1	9
Corn ethanol (*)	49%	43	20	21	2
Bio-Diesel					
Rape seed biodiesel	38%	52	29	22	1
Sunflower biodiesel	51%	41	18	22	1
Soybean biodiesel	31%	58	19	26	13
Palm oil biodiesel					
with methane capture	56%	37	14	18	5
without methane capture	19%	68	14	49	5
Thresholds					
from 2010 / 2013	35%	54			
from 2017	50%	42			
from 2018	60%	34			

Source: Figures are based on Annex V, but not all details are shown. Thresholds: See above for details. (*) The value for corn ethanol refers to Community production only. There is no default value for third country production.

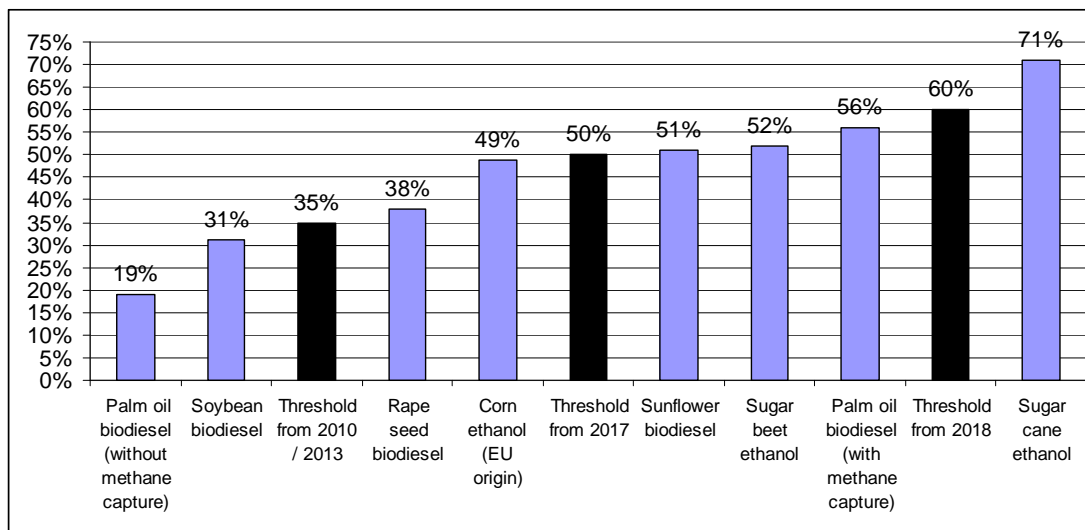
Figure 1 shows the default savings rate compared to the three thresholds.

¹⁰ Directive 2009/28/EC, Art. 19 (1) (a).

¹¹ Directive 2009/28/EC, Art. 19 (1) (b).

¹² Directive 2009/28/EC, Art. 19 (1) (c).

Figure 1. Default values for some biofuels compared with threshold values



Source: idem

This shows that the threshold values set for 2017 and 2018 are very ambitious and will only be reached by a small number of today's first-generation biofuels.¹³

Two interesting examples should be pointed out:

- There are two different default values for the processing of palm oil diesel, depending on whether methane is captured during the processing. Methane has a much higher GHG effect than CO₂ and the overall emissions measured in CO₂ – equivalents is drastically reduced if methane is captured (and then for example used for cogeneration).
- A default value is provided for corn ethanol from EU origin. This means that such a default value could not be used for US corn ethanol, i.e. EU-based corn ethanol producers would not have to prove that they fulfil the 35% savings requirement as the default value is set at 49%, but US producers would have to prove it. This could be seen as discriminatory and will be discussed below.

Land-use requirements

Art. 17 (3)-(5) of the Directive 2009/28/EC specifies criteria for the land from which the raw material used for the biofuel originates. The land-use criteria are threefold:

¹³ Second-generation biofuels (which are made of biomass that today cannot commercially be used to produce biofuel) could reach these saving rates. The Directive provides some estimated saving rates for some second-generation biofuels such as waste wood ethanol. These biofuels reach saving rates of 76-95%.

First, biofuels shall not be made from raw material obtained from land with high biodiversity value. The land must not have had one of the three following statuses in or after January 2008¹⁴, whether or not the land continues to have that status. The first status relates to primary forest and other wood land. Areas designated for nature protection purposes or for the protection of rare, threatened or endangered eco-systems or species form the second status.¹⁵ As to the third status, it concerns natural and non-natural highly biodiverse grassland. This last status is subject to the determination by the Commission of the criteria and geographic ranges of the covered grassland.¹⁶

Second, biofuels shall not be made from raw material obtained from land with high carbon stock in or after January 2008, namely wetlands, continuously forested areas or land spanning more than one hectare with a certain minimum canopy cover. Concerning the last status, if the greenhouse gas emission saving thresholds provided for by Art. 17 (2) of the Directive are fulfilled by the carbon stock of the area before and after conversion, the provision does not apply.

Third, biofuels shall not be made from raw material obtained from land that was peatland in January 2008, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.

Box 1. Indirect land-use change

Indirect land-use change (ILUC) refers to the potential change in land use due to higher demand for biofuels. Even though the EU's sustainability criteria include emissions from land-use change and biofuels produced on certain lands are deemed unsustainable, this does not guarantee that there is no indirect effect of the EU's policy.¹⁷ A simple example may highlight that: Higher demand for palmoil could be met by Malaysian producers by using land for its production that is in conformity with the sustainability criteria. Production of palmoil which is not exported to the EU (or other products) could then be relocated to deforested land. Deforestation could therefore be caused by the EU's demand for biofuel, even though the biofuel exported to the EU would not be produced on recently deforested land.

¹⁴ This means that land which used to have such a status *before* 2008 could be used for the production of biomass for biofuel. Thus, only new conversion of land shall be prevented.

¹⁵ However, if evidence is provided that the production of the raw material did not interfere with those nature protection purposes, the provision shall not apply.

¹⁶ With respect to the non-natural highly biodiverse grassland, the provision shall not apply, if evidence is brought that the harvesting of the raw material is necessary to preserve its grassland status.

¹⁷ A recent study assessing ILUC effects (Global Trade and Environmental Impact Study of the EU Biofuels Mandate) can be found here : http://trade.ec.europa.eu/doclib/docs/2010/march/tradoc_145954.pdf

The Directive 2009/28/EC refers to ILUC in Art. 19(6):

“The Commission shall, by 31 December 2010, submit a report to the European Parliament and to the Council reviewing the impact of indirect land-use change on greenhouse gas emissions and addressing ways to minimise that impact. The report shall, if appropriate, be accompanied, by a proposal, based on the best available scientific evidence, containing a concrete methodology for emissions from carbon stock changes caused by indirect land-use changes, ensuring compliance with this Directive, in particular Article 17(2).

Such a proposal shall include the necessary safeguards to provide certainty for investment undertaken before that methodology is applied. With respect to installations that produced biofuels before the end of 2013, the application of the measures referred to in the first subparagraph shall not, until 31 December 2017, lead to biofuels produced by those installations being deemed to have failed to comply with the sustainability requirements of this Directive if they would otherwise have done so, provided that those biofuels achieve a greenhouse gas emission saving of at least 45 %. This shall apply to the capacities of the installations of biofuels at the end of 2012.

The European Parliament and the Council shall endeavour to decide, by 31 December 2012, on any such proposals submitted by the Commission.”

Indirect land-use changes could for example be taken into consideration by adding average emissions caused by ILUC to the biofuel-specific emissions on a country-by-country basis. That could mean that certain biofuels are deemed unsustainable because their production causes emissions through ILUC in their country. This would also raise additional questions about the WTO-consistency of such measures. We do not evaluate this issue further as it is not known whether and how the EU would change the sustainability criteria to include ILUC effects.

Other requirement

It had been debated whether mandatory social criteria should also be included in the Directive. Although this has not happened, paragraph 7 of Art. 17 of the Directive specifies a mechanism to monitor the potential social impact of biofuel production in source countries, whether they are EU members or not. Accordingly, the Commission will assess the impact of increased demand for biofuel on food prices and “wider development issues”. The Commission shall also state whether source countries have ratified and implemented certain

ILO conventions, the Cartagena Protocol on Biosafety and the Convention on International Trade in Endangered Species of Wild Fauna and Flora. “Corrective action” can be proposed, “in particular if evidence shows that biofuel production has a significant impact on food prices”. However, paragraph 8 makes clear that social criteria can not be used to define the eligibility of biofuels: “*For the purposes referred to in points (a), (b) and (c) of paragraph 1, Member States shall not refuse to take into account, on other sustainability grounds, biofuels obtained in compliance with this Article.*”

Consequences of the distinction between “sustainable” and “non-sustainable” biofuels and effects for biofuel producers

Production costs of today’s biofuel are usually well above market prices for fossil fuels. As long as this does not change, the 10% share of the final consumption of energy in transport will not be achieved through market forces alone. Member States will therefore have to set regulations that ensure that the 10% target will be reached while taking account of the sustainability criteria. This could be done in different ways. One option would be a reduction or waiver of excise taxes for biofuel as already done by several EU Member States as well as the US and other third countries. A second option is to set mandatory blending requirements for producers or consumers. Germany, for example, already sets specific targets for the share of fuels from renewable sources that apply to all fuel providers.¹⁸ Accordingly, every provider that brings fuel into circulation has to mix the regular fuel with a certain amount of biofuel in order to achieve a specific proportion for petrol and diesel. As a consequence of the tradable nature of requirement, these companies can delegate their obligations to other companies. Another option would be to subsidize the production or use of biofuel by such an amount that consumption reaches the required level.

All these options, and any combination thereof, would give an advantage to biofuel producers because they create demand for biofuel that would otherwise be almost non-existent.

¹⁸ *Bundes-Immissionsschutzgesetz*, Art. 37a; In Belgium, a similar obligation exists, *Wet houdende verplichting tot bijmenging van biobrandstof in de tot verbruik uitgeslagen fossiele motorbrandstoffen*, 22 July 2009.

Box 2 briefly outlines the different options in more detail:

Box 2. Different options to promote biofuel use

Requirements for blending: If a producer or importer of fuel is required to add a certain share of biofuel to its product, then they are forced to purchase the respective amount of biofuel on the market and the demand for biofuel would go up. A 10% target means that a substantial amount of biofuel will have to be bought by producers / importers to fulfil the requirements, even if the price¹⁹ for biofuel is significantly above fossil fuel. This means that biofuel producers will be able to sell significant amounts of their products for which there would be no demand in the absence of the artificially created demand. If we assume that there is a competitive market, then the price for biofuel should reach a level equal to the marginal cost of production for biofuel, which would certainly be higher than the production costs of at least some biofuel producers and therefore some producers would make profits. In other words: The increased demand for biofuel means that biofuel producers – many of which are farmers - will gain.

The market price for biofuel that would not count for the blending requirements, i.e. “biofuel” that is not in conformity with the Directive 2009/28/EC and national regulations would not be above the one for fossil fuel.

Tax reductions & waivers: Fuel is subject to high excise taxes in all EU Member States and a minimum excise tax for both petrol and diesel applies in the EU²⁰ and most Member States apply taxes well above the minimum. If excise taxes for certain biofuels are reduced, then the market price for these biofuels would increase. For example, if conventional diesel is traded at 0.40 Euro/l and taxed at 0.50 Euro/l, then biodiesel would be traded at 0.90 Euro/l if it is not subject to excise tax (with adjustments for energy content etc.). But if full excise tax applies to biofuel, then the market value would not go above 0.40 Euro/l. Therefore the effect is very similar to the effect of mandatory blending explained above. The main difference is that the costs of the use of biofuel would be borne by the taxpayer because tax revenue for fuel would go down, whereas in the case of mandatory blending it is the consumer who bears the costs because the overall fuel price would increase. A disadvantage of tax reductions is that there is no guarantee that the 10% target is reached.

¹⁹ Whenever we make reference to prices and values, we assume that these are adjusted for different energy densities and other technical properties of different fuels. For example, a litre of palm oil biodiesel does not necessarily have the same value as a litre of conventional diesel because the energy content could differ or because blending with biodiesel could make the final product less suitable for some vehicles.

²⁰ The minimum tax is set at 0.359 Euro/litre for petrol and 0.302 Euro/litre for diesel (rates applicable since 1st January 2010). See Council Directive 2003/96.

Subsidies²¹: A production subsidy could lower the production costs of biofuel and make it competitive with fossil fuel, therefore giving a direct advantage to the biofuel producer. The effect of a consumption subsidy would be equivalent to a tax reduction.

Both EU and foreign producers of biofuel could in principal gain from increased demand. The crucial question is where this biofuel will come from and whether foreign producers will have equal chances to gain from the increased demand compared to EU producers. The Commission is expecting that around 70% of the biofuel demand in 2020 (when the 10% target has to be reached) will be met by Community-produced feedstock and the remainder will be imported (USDA, 2009). But if refiners were completely free to choose the sources of the biofuel that they have to use (assuming the 10% target is implemented through mandatory blending), then the most efficient producers would capture the market. If foreign producers are able to produce biofuel more efficiently, then a much higher share could be imported – unless foreign producers will find it difficult to fulfil the sustainability criteria. Tariffs could be another barrier to the EU market, as explained in Box 3.

Box 3. Tariffs for biofuel

Existing tariffs for biofuels could be a potential – but WTO-compatible - barrier for foreign producers. Currently, tariffs are set at very different levels for major biofuels. This is related to the fact that biofuels fall under different product categories in the tariff schedule. Bioethanol faces particularly high tariffs of around 45%.²² Biodiesel faces a tariff of 6.5%, but palm oil can be imported duty-free and soybean oil faces a tariff of 3.2%. Lower or zero rates apply for a range of FTA partners and ACP/LDC countries. Once the Doha round is concluded, these tariffs would also fall significantly. In addition, the EU seems willing to reduce tariffs on biofuel.²³ However, for the time being, the high tariff on ethanol remains a significant barrier for the main producer Brazil.

²¹ Subsidies are generally applied at Member States or regional level. In 2001, the energy subsidies for renewables in the EU amounted to 19% of all energy subsidies.

²² The tariff is set at 10.2 EUR/hl for denatured ethanol and 19.2 EUR/hl for undenatured ethanol. Swinbank, (2009) states an estimated ad-valorem equivalent of 45%, though this may be overrated for denatured ethanol, given current gasoline prices of around 0.40 Euro/l..

²³ “[I]f it would appear that supply of sustainable biofuels to the EU is constrained, the EU should be ready to examine whether further market access would be an option to help the development of the market.” Communication from the Commission, *Renewable Energy Road Map: Renewable energies in the 21st century: building a more sustainable future*, 10/01/2007, p. 7.

Part II –Consistency of the sustainability criteria with the GATT

We will now assess whether the the sustainability criteria provided for under Art. 17 of the Directive are consistent with WTO obligations. In this perspective, Artt. I, III, XI and XX GATT are of relevance. Art. III GATT provides for *national treatment*, i.e. *like* imported products must not be less favourably treated compared to like domestic products. In parallel to Art. III GATT, the sustainability criteria have to be analysed under Art. I GATT providing for the Most-Favored-Nation (MFN) Treatment, i.e. an advantage accorded to one country has to be extended “immediately and unconditionally” to all other WTO Members. Alternatively, Art. XI GATT could be applied, which prohibits restrictions on importation.

If a violation is found under any of these articles, then it has to be analysed whether the sustainability criteria could be justified under the exception clause provided by Art. XX GATT.

We do not provide an assessment of whether the Directive is compatible with the TBT agreement. The Commission argues that the Directive does not lay down mandatory standards because the sustainability standards are not mandatory in order to import, bring into circulation or use a biofuel in the European Union. Therefore, the Directive was also not notified to the WTO as a technical barrier.²⁴

Consistency with GATT Article III:4

Application of Art. III:4 - National Treatment (NT)

Art. III:4 GATT encompasses three cumulative criteria: it applies to products and processes and production methods (PPMs), it requires likeness between imported and domestic products and no less favourable treatment of imported products compared to *like* domestic products. The likeness requirement is a prerequisite for the establishment of a potential less favourable treatment of like imported products, which reflects the objective of Art. III:4 GATT, i.e. to achieve NT.

²⁴ We had assessed the TBT compatibility in a previous version of this paper and came to the conclusion that the Directive is largely in line with the TBT agreement.

Therefore, once it has been established that sustainability criteria are PPMs and that PPMs are indeed covered by Art. III:4 GATT, it has to be analysed whether non-sustainable imported biofuels are like sustainable domestic biofuels and, if so, whether those imported biofuels are accorded less favourable treatment compared to like domestic biofuels, which would be a violation of Art.III:4 GATT. Art. III:4 GATT reads as follows:

“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.”

For the sustainability criteria to violate this provision, three conditions therefore need to be analysed: Whether the sustainability criteria concern products or process and production methods (PPMs), whether the imported and domestic products are “like” and whether the former are less favourably treated than the latter.

Product or PPM

The notion “processes and production methods” originated in the GATT agreement on Technical Barriers to Trade (TBT) and referred to product standards, which concern the production method rather than the product characteristics. The PPM concept has been however expanded to encompass other production methods. PPMs are generally divided into two categories: product-related and non-product-related PPMs. Product-related PPMs are “used to assure the functionality of the product, or to safeguard the consumer who uses the product”, whereas the non-product-related PPMs are “designed to achieve a social purpose”.²⁵ Within the latter category, three types of PPMs can be distinguished, as notably discussed by *Charnovitz*. First, the *how-produced standard* specifying the processing method used for making the product. Second, the *government policy standard* concerning the laws or regulations of a foreign government regarding the production process. Third, the *producer*

²⁵ Charnovitz St., *The Law of Environmental « PPMs » in the WTO : Debunking the Myth of Illegality*, 27 Yale J. Int'l L. 59 2002, p.65.

characteristics standard specifying attributes of a producer or its contractual relations. This distinction is of importance because, as stated by Charnovitz, under WTO rules, “how-produced standards are preferable to government policy and producer characteristics standards” because “the how-produced standard operates much like a simple product standard. It does not coerce governments, nor does it penalize economic actors who are willing to assure that their exports meet the importing country’s standard. Moreover, small countries can use how-produced standards because they will almost always find willing suppliers. For these reasons, the how-produced standard will probably not cause as much trade tension as the government standard does.”²⁶

The emission saving as well as the land-use criteria can both be considered *how-produced PPMs* as they are related to the *production* process of the biofuels of an individual producer. The required GHG savings are calculated by adding emissions during the whole production process, most of which are completely unrelated to the product itself. For example, it matters whether methane is extracted from the emissions of a biofuel processing plant. Yet, this has no bearing on the product. The land-use criteria define whether the land used for the production of the raw material allows “sustainable” production, i.e. they are not related to the product itself.

It is worth mentioning that no GATT or WTO case has thus far addressed the how-produced standards, in contrast to the two other types of PPMs. The first decision on PPMs is the *Tuna/Dolphin* case²⁷ relating to a government policy standard. Before analysing the decision, it is important to note that the *US-Tuna* panel report has not been adopted and thus carries very little precedential value.²⁸ In this case, the measure at issue was the US Marine Mammal Protection Act (MMPA) regulating the domestic harvesting of yellow fin tuna to reduce the incidental taking of dolphin, and prohibiting imports of tuna from destinations, where such regulation was not in force (including Mexico, the Complainant in this case). After extensive

²⁶ Charnovitz St., *The Law of Environmental « PPMs » in the WTO : Debunking the Myth of Illegality*, 27 Yale J. Int’l L. 59 2002, pp. 67-69.

²⁷ Panel Report, *United States – Restrictions on Imports of Tuna*, DS21/R – 39S/155 (Sept. 3, 1991) (not adopted).

²⁸ Commentary to the *US-Shrimp* case (Panel), available on WorldTradeLaw.net.

In principle, adopted AB and panel reports are only binding on the parties to the dispute. In practice, however, these decisions are often taken into account in subsequent cases and have thus a *de facto* role as precedent. In the *Japan-Alcoholic Beverages* case, the AB stated that “Adopted panel reports are an important part of the GATT *acquis*. They are often considered by subsequent panels. They create legitimate expectations among WTO Members, and, therefore, should be taken into account where they are relevant to any dispute.”

deliberation, the GATT Panel found that this measure was not covered by the *Ad Note* Art. III GATT²⁹, and therefore did not fall within Art. III GATT.

The Panel justified its position on the ground that *Ad Note* Art. III and Art. III GATT cover only measures that are applied to the product as such, whereas the regulation at issue could not possibly affect tuna as product. Moreover, according to the Panel, it did not directly regulate the sale of tuna. However, it is doubtful whether the wording of *Ad Note* Art. III and Art. III GATT is intended to make a distinction between product as such (thus not the process) and its production process. Indeed, the term *product* in Art. III GATT is most probably used because it relates to the trade in goods according to the definition of the GATT Agreement.³⁰ In addition, it is straightforward that a measure prohibiting imports regulates at the same time the sale of the imported product.³¹ Thus, there are strong arguments according to which the US measure at issue is also one falling within the scope of Art. III GATT. In this respect, it is important to note that the Panel itself envisaged the possibility of applying Art. III GATT to the MMPA.

The *US-Shrimp* case³² concerned a government policy standard requiring shrimp to be caught using turtle excluder devices (TED). Indeed, *Members* not certified as using this method, i.e. *Members* whose legislation did not impose the use of this method, were prohibited to import shrimp, even if it was TED-caught shrimp. The WTO Panel applied Art. XI GATT to this PPM measure, after finding a *prima facie* violation of Art. XI GATT, which prohibits import restrictions, as the measure imposed a clear import ban. Indeed, the respondent, the US, did not dispute the application of Art. XI GATT nor did it invoke Art. III:4 GATT. Therefore, the justification for applying Art. XI GATT is based on the existence of a clear import ban and on procedural grounds and is not related to the status of process-based measures.

Consequently, from these two cases, it cannot be inferred that Art. III GATT does not apply to PPM measures.

²⁹ The *Ad Note* Art. III GATT specifies the relationship between Art. III GATT and Art. XI GATT with respect to imported products. According to the *Ad Note* Art. III GATT, “Any internal tax or any other internal charge, or any law, regulation or requirement of the kind referred to in paragraph 1 [of Art. III GATT] which applies to an imported product and to the like domestic product and is collected and enforced in the case of the imported product at the time or point of importation, is nevertheless to be regarded as an internal tax or other internal charge, or a law, regulation or requirement of the kind referred to in paragraph 1, and is accordingly subject to the provisions of Art. III”.

³⁰ Howse R., Regan D., *The Product/Process Distinction – An Illusory Basis for Disciplining «Unilateralism» in Trade Policy*, EJIL (2000), Vol. 11 No. 2, p. 254.

³¹ Howse R., Regan D., *The Product/Process Distinction – An Illusory Basis for Disciplining «Unilateralism» in Trade Policy*, EJIL (2000), Vol. 11 No. 2, p. 254.

³² Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998).

This is also supported by the *US Alcoholic Beverages*³³ and *US Gasoline*³⁴ cases, where the Panels applied Art. III GATT to producer characteristics PPMs. The *US-Alcoholic Beverages* case concerned tax credits available to domestic and foreign breweries depending on their annual production; only small breweries benefited from this tax credit. The *US-Gasoline* case related to the “Clean Air Act”, a law designed to prevent and control air pollution in the US. It applied to US refiners, blenders and importers of gasoline and concerned the composition and environment effects of gasoline. The quality of the gasoline was assessed on the basis of historic baselines for individual *domestic* entities. They had the choice between three different methods. By contrast, the *importers* were assigned the statutory baseline, unless they could establish their individual baseline following the first method. In these two cases concerning PPM measures, Art. III GATT has been applied instead of Art. XI GATT because the PPM measures did not lead to an import ban, in contrast to the *Tuna/Dolphin* and *Shrimp-Turtle* cases.

Although the sustainability criteria provided for in Art. 17 of the Directive concern *how-produced* PPMs, the Directive shares some similarities with the *US Alcoholic Beverages* and *US Gasoline* cases. Indeed, the sustainability criteria have to be fulfilled so that the biofuel can be counted for the fulfilment of the 10% target for biofuel use in transport. In this respect, a parallel can be drawn with the *US Alcoholic Beverages* case, which subjected a tax credit to a particular PPM (the annual production). Moreover, with respect to the emission saving criteria, they can be compared to the *US Gasoline* case. In fact, the emission savings relating to the production process of biofuels are computed based on default or actual values, both methods available to domestic producers and importers.

Therefore, strong arguments can be made that Art. III GATT applies to the sustainability criteria provided for in Art. 17 of the Directive 2009/28/EC. However, in the alternative, if the WTO Panel or Appellate Body were to decide that the sustainability criteria are not covered by Art. III GATT, Art. XI GATT would have to be applied, and if so, would be violated, but could be excused under Art. XX GATT discussed below.³⁵

³³ Panel Report, *United States – Measures Affecting Alcoholic and Malt Beverages*, BISD 39 (1992) 206, para. 5.18-5.19.

³⁴ Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R (adopted Jan. 29, 1996).

³⁵ The legal analysis to Art. XI GATT is developed below in the alternative.

Likeness

After establishing that Art.III:4 GATT covers the sustainability criteria, it has to be analysed whether unsustainable imported biofuels are “like” sustainable domestic biofuels.

In the *EC-Asbestos* case, the Appellate Body stated an important general principle relating to “likeness” under Art. III:4 GATT: “(...) a determination of “likeness” under Article III:4 GATT is, fundamentally, a determination about the nature and extent of a *competitive relationship* between and among products.”³⁶ Accordingly, although the distinction between imported and domestically-produced biofuels is based on sustainability criteria, these criteria are of no relevance when examining likeness under the well-established objective approach.³⁷ Indeed, it is nowadays well established that the objective, economic approach is used to determine *likeness*.³⁸ The case law has applied four criteria that were developed in the Report of the Working Party on *Border Tax Adjustments* of 1970: the products properties, nature and quality; the product’s end uses in a given market; the consumer’s tastes and habits and the tariff classification. However, the determination of “likeness” is not limited to those four criteria and has to be made on a “case-by-case basis.”³⁹ When applying this objective approach to the Directive 2009/28/EC, it is most likely that imported biofuels not compliant with the sustainability criteria and domestic biofuels fulfilling those criteria will be considered as “like”. To exemplify this assumption, it is useful to develop some possible scenarios. For that reason, we will outline and compare a few types of biofuels and their classification that could be subject to potential disputes:

³⁶ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 99 (emphasis added). However, the opinion of the AB on this issue was not unanimous. A concurrent statement expressed “substantial doubt” as to the necessity or appropriateness “of adopting a ‘fundamentally’ economic interpretation of ‘like products’ under Art. III:4 GATT” (para. 154).

³⁷ *Contra* Howse R., Regan D., *The Product/Process Distinction – An Illusory Basis for Disciplining «Unilateralism» in Trade Policy*, EJIL (2000), Vol. 11 No. 2, p. 249.

³⁸ By contrast, the subjective approach analyses the protectionist aims and effects of an internal regulation. For the subjective approach, “like” means “not differing in any respect relevant to an actual non-protectionist policy”, that is to say that for products to be unlike under this approach, the difference in treatment between imported and domestic products is the result of the non-protectionist objective of the regulation.

³⁹ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 101

Table 2. Examples of biofuels for comparison

Abbreviation	Type of biofuel	Origin	Emission savings fulfilled? (Threshold: 35%)	Land-use criteria fulfilled?	Eligible ?
Rapeseed-1	Rapeseed biodiesel	EU	yes	yes	yes
Palmoil-1	Palmoil biodiesel	Malaysia	yes (due to methane extraction)	yes	yes
Palmoil-2	Palmoil biodiesel	Malaysia	no (due to lack of methane extraction)	yes	no
Palmoil-3	Palmoil biodiesel	Indonesia	yes (due to methane extraction)	no (land was rainforest until 2009)	no
Soybean-1	Soybean biodiesel	Brazil	yes (low transport emissions because low-weight biodiesel is shipped, rather than bulky soybeans)	yes	yes
Soybean-2	Soybean biodiesel	Processed in EU with soybeans from Brazil	no (emissions are too high due to transport emissions of bulky soybeans)	yes	no
Soybean-3	Soybean biodiesel	Brazil	yes (low transport emissions because low-weight biodiesel is shipped, rather than soybeans)	no (land that is a designated protection area by the Fed. Govt. and producer cannot provide evidence that planting of soybeans did not interfere with protection purpose)	no
Corn-1	Corn-based ethanol	EU	yes (default value (49%) used, which only applies to EU corn)	yes	yes
Corn-2	Corn-based ethanol	USA	no (calculation shows that GHG savings are only 34% and EU default value cannot be applied)	yes	no

Physical characteristics of biofuels: Current and potential imports consist of processed and unprocessed biofuels as well as raw materials. The fact that the biofuels do not fulfil the sustainability criteria does not modify the product’s physical characteristics. Indeed, EU-produced (sustainable) corn ethanol (“Corn-1” in Table 2) has the same physical characteristics as US-produced (unsustainable) corn ethanol (“Corn-2” in Table 2). It is less straightforward to make the same argument when assessing the likeness of biofuels based on different raw materials. This is an important point as huge quantities of the EU-produced biofuels (in particular rapeseed oil and bioethanol based on wheat or corn) are based on different raw materials compared to the majority of foreign produced biofuels (in particular South East Asian producers of palmoil-based biodiesel and cane-based ethanol from Brazil and elsewhere). However, the physical properties could be very similar for the final products (i.e. diesel blended with 10% palmoil biodiesel vs. 10% rapeseed biodiesel): Palmoil and rapeseed oil, for instance, are arguably physically not identical, but these physical differences do not matter when they are used for blending with diesel, instead of, for example, for cooking.

A comparison between imported and domestic (partially or completely) unprocessed biofuels could lead to the conclusion of “unlikeness” because raw materials can have significant physical differences (e.g. soybeans vs. wheat).

It is worth mentioning that in the *Superfund* case the GATT Panel ruled that crude oil, crude oil condensates, natural gasoline, refined and residual oil were “like” on the basis of their physical characteristics⁴⁰, even though these products do arguably have physical differences. What they have in common is that they are all products made of crude oil and used for very similar purposes. For biofuels, it could be argued in the same way that they are like because they are all made of biomass and have very similar characteristics for the purpose of use as fuel.⁴¹

In conclusion, “physical characteristics” of different biofuels can be considered “like” for at least a wide range of products, incl. many of those for which exporters could argue that there is discrimination between their biofuels and “sustainable” EU-produced biofuels.

Product’s end-uses: The end-uses of different biofuels – whether they fulfil the sustainability criteria or not - are practically identical – they are used as fuel.⁴² Bioliquids, which are also covered by the sustainability criteria, are used for energy purposes other than for transport – but they would then have the same end-use as other bioliquids that fulfil the sustainability criteria.⁴³

Consumer’s tastes and habits (substitutability test): Consumers could perceive and treat biofuels that do not fulfil the sustainability criteria in a different manner compared to those complying with these criteria. In this respect, it is worth mentioning that in the *EC-Asbestos* case, the Appellate Body specified that “(...) a higher burden is placed on complaining Members” to overcome the indication that products are physically not like on the basis of the other criteria. *A contrario*, if the products are physically like, a higher burden is placed on defending Members to overcome this indication based on other criteria, such as consumer preferences. A processor (e.g. a refiner in the EU) would most likely be indifferent between using two different types of biofuel if both are suitable for blending with fuel.

⁴⁰ Panel Report, *United States – Taxes on Petroleum and Certain Imported Substances*, L/6175 – 34S/136 (adopted on June 17, 1987), para. 5.1.1.

⁴¹ End-use is another criteria that has to be evaluated separately, but physical characteristics should themselves be evaluated with the end-use in mind because whether certain physical differences matter will depend on the end-use and should particularly matter less when vegetable oils are used as fuel rather than for human or animal consumption.

⁴² Directive 2009/28/EC, Art. 2 (i)

⁴³ Directive 2009/28/EC, Art. 2(h)

Tariff classification of biofuels in the EU: The last criterion to be analysed is the tariff classification of the biofuels within the EU. If sufficiently detailed, tariff classification can be a helpful sign of product similarity. However, the tariff classification of biofuels in the EU is very complex. Indeed, biofuels can enter under different tariff classifications (HS codes⁴⁴) depending on, for example, the level of blending. Although the most common HS headings for biofuel imports in the EU are 2207 for bioethanol and 3824 for biodiesel, there is no strictly defined HS code for either bioethanol or biodiesel.⁴⁵ This also relates to the fact that products used today as biofuels have very different end-uses if not used as biofuel. For instance, they could be used as food (e.g. soy oil) or for a large variety of purposes (e.g. ethanol for medical products). The tariff classification reflects this. In any case, the tariff classification of a “sustainable” biofuel and the same type of biofuel that is “unsustainable” is the same (e.g. Corn-1 and Corn-2 in Table 2), so a complainant could easily point at *likeness* between these two products.

In conclusion, imported and domestic biofuels may have identical or similar physical characteristics. Even if they have physical differences, following the *Superfund* case, they can be considered as “like”, because they are all derived from biomass. Moreover, based on the definition of biofuels in the Directive, they have identical end-uses. Due to the high burden of proof to overcome the indication that products are physically like, consumer’s tastes and habits most probably do not overcome this indication. The tariff classification is not identical across all biofuels, but is the same if the only difference is the production method.

Therefore, on the basis of this overall examination of the four criteria⁴⁶, imported biofuels not compliant with the sustainability criteria and domestic biofuels fulfilling those criteria will most probably be considered as “like”.

⁴⁴ The Harmonized System (HS) Treaty elaborated at the World Customs Organization lists and classifies all kinds of products according to product or tariff lines. Not all WTO Members have ratified the HS Treaty. However, in practice, all WTO Members follow the HS classification in their WTO schedules, as least as a starting point.

⁴⁵ USDA Foreign Agricultural Service, GAIN Report, NL9014, 6/15/2009 and GAIN Report E36056, 04/06/2006.

⁴⁶ The Appellate Body examines the likeness of the products on the basis of an overall examination of the four criteria: Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 109.

Is there less favourable treatment?

After establishing that the sustainability criteria are PPMs covered by Art. III:4 GATT and that unsustainable biofuels are “like” domestic sustainable biofuels, it has to be analysed whether imported biofuels are less favourably treated compared to domestic biofuels, i.e. whether the sustainability criteria are set *so as to protect* the EU-produced biofuels by making them ineligible for incentive measures for biofuel. GATT case law and recent WTO decisions have reintroduced a form of aims-and-effects test through the third criterion under Art. III:4 GATT requiring the absence of less favourable treatment.

In the *US-Alcoholic Beverages* case, the GATT Panel specified that “the purpose of Art. III is not to prevent contracting parties from differentiating between different product categories *for policy purposes unrelated to the protection of domestic production*” and that this analysis is not limited to Art. III:2 GATT.⁴⁷ In the *EC-Asbestos* case, the Appellate Body specified that even if products are “like”, in order for them to be in violation of Art. III:4 GATT, it still must be shown that the measure accords to the group of *like* imported products less favourable treatment than it accorded to the group of *like* domestic products. Moreover, the AB underlined that the term *less favourable treatment* expresses the general principle in Art. III:1 GATT⁴⁸, namely that internal regulations “*should not be applied ... so as to afford protection to domestic production.*” “However, a Member may draw distinctions between *like* products without, for this reason alone, according to the *group* of imported products “less favourable treatment” than that accorded to the *group* of *like* domestic products.”⁴⁹

This has been restated by the Appellate Body in the *Dominican Republic-Cigarettes* case: “*The existence of a detrimental effect on a given imported product resulting from a measure does not necessarily imply that this measure accords less favourable treatment to imports if the detrimental effect is explained by factors or circumstances unrelated to the foreign origin of the product [...]*”.⁵⁰

The Appellate Body refers to Art. III:1 GATT in the *Asbestos* case, which has a particular contextual significance in interpreting Art. III:4 GATT as it sets forth the “general principle”

⁴⁷ Panel Report, *United States – Measures Affecting Alcoholic and Malt Beverages*, BISD 39 (1992) 206, (emphasis added), para. 5.25.

⁴⁸ By contrast, the AB explicitly stated in *EC-Bananas* that « Article III:4 does not specifically refer to Article III:1. Therefore, a determination of whether there has been a violation of Article III:4 does not require a separate consideration of whether a measure ‘affords protection to domestic production’.”

⁴⁹ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001) (emphasis added), para.100

⁵⁰ Appellate Body Report, *Dominican Republic – Measures Affecting the Importation and Internal Sale of Cigarettes*, WT/DS302/AB/R (adopted May 19, 2005), para. 96

pursued by that provision⁵¹, i.e. national treatment. It is therefore of importance to rely on the construction of the phrase “*applied so as to afford protection*” developed in a subsequent case, the *Chile-Alcohol* decision. In this case, the AB examined the design, structure and architecture of the measure, in order to discern the statutory purposes or objectives of the measure.⁵² In this regard, the AB noted, *inter alia*, that in comparing the taxation on *all* imported and domestic products over the *entire* range of categories, most of the current and potential imports were subject to the highest tax rate.⁵³

This case law focuses on *de facto* discrimination, i.e. measures which, on their face, appear “origin-neutral” but are in fact discriminatory, as opposed to *de jure* discrimination, i.e. discrimination “in law”, where the measure or regulation makes a direct distinction between different origins. Following this case law, for *de facto* discrimination to exist, a nationality link has to be proved by comparing the treatment of the group of imported products to the group of *like* domestic products on the basis of the design, structure and architecture of the measure, in order to discern its statutory purposes.

According to *Pauwelyn*, defending an *improved* aims-and-effects test based on this case law and focused not on “likeness” but on “less favourable treatment” or *de facto* origin-based discrimination, “*it seems that proof of de facto discrimination will be decided on a case-by-case basis, looking at a number of elements: the structure, design and architecture of the regulation; the way the regulation is applied; the effect of the regulation on the group of imports as opposed to the group of like domestic products; evidence of a protectionist purpose, evidence of alternative non-protectionist purposes that explain the regulation and why it distinguishes between like products, etc.*”⁵⁴

Before turning to the analysis of the Directive, it has to be underlined that this *aims-and-effects* test introduced by the WTO case law has to be distinguished from the necessity test under Art. XX GATT, which provides for exceptions in case of GATT violations, such as a

⁵¹ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 93

⁵² Appellate Body Report, *Chile – Taxes on Alcoholic Beverages*, WT/DS87/AB/R (adopted Jan. 12, 2002), para. 56-57

⁵³ Appellate Body Report, *Chile – Taxes on Alcoholic Beverages*, WT/DS87/AB/R (adopted Jan. 12, 2002), para. 52-53, 56-57, 64-66

⁵⁴ Pauwelyn J., *Comment: The unbearable lightness of likeness*, in *GATS and The Regulation of International Trade in Services*, ed. by Panizzon M, Pohl N. and Sauvé P., Cambridge University Press, pp. 358-369.

GATT Art. III:4 violation. The link required under Art. III GATT should, according to the AB in the *Chile-Alcohol* case, be less than “necessity” under the Art. XX GATT.⁵⁵

Taking into account the design, structure and architecture of the Directive 2009/28/EC, the crucial question is then whether the sustainability criteria are established so as to afford *de facto* origin-based discrimination against the imported non-sustainable biofuels. In this perspective, the sustainability criteria will be analysed separately due to their different nature. First, we will analyze the GHG emission saving criteria, more precisely the methodology of computing the savings rates and the setting of default values. Second, we will examine the land-use criteria on the basis of the geographical situation of the lands covered by those criteria as well as the location of the biofuels’ production in the world.

Greenhouse gas emission saving criteria

One of the main objectives of the Directive 2009/28/EC is the reduction of the GHG emissions by using renewable energy, including biofuels. The Directive 2003/30/EC preceding the EU Renewable Energy Directive pursued the same objective with respect to biofuels, but contained only *reference* values. In consequence, the use of biofuels remained very low in many Member States. By setting *compulsory* targets, the new EU Renewable Energy Directive aims at creating a higher demand for *sustainable* biofuels to achieve its objective.

The GHG saving criteria apply to *both* domestic and imported biofuels, without explicitly discriminating against imported biofuels. Therefore, the main principles of Art. 17 of the Directive do not *de jure* discriminate against imported biofuels – although some elements could be seen as *de jure* discrimination, as we will show below.

In order to discern the existence or absence of *de facto* origin-based discrimination, it has to be analyzed whether the GHG savings criteria lead to *de facto* discrimination of imported biofuels - following the *EC-Asbestos*, *Dominican Republic-Cigarettes* and *Chile-Alcohol* cases. In that regard, a comparison has to be made between all current and potential EU imports of biofuels and the EU’s own production in biofuels

⁵⁵ Appellate Body Report, *Chile – Taxes on Alcoholic Beverages*, WT/DS87/AB/R (adopted Jan. 12, 2002), para. 72

As we have outlined above, the EU Directive defines in detail (a) how the emission savings rate is calculated and (b) which minimum savings rate has to be fulfilled by a biofuel for it to be considered “sustainable”.

(a) It appears that the methodology for calculating the overall GHG emissions from the production and use of a specific biofuel (and thereby the emission savings rate) is done in a rational manner and at least in principal based on international standards.⁵⁶ It also allows individual producers to provide their own calculation of emissions generated by their biofuel if the default emission values are deemed too high by the producer. But some elements of the savings criteria could lead to *de facto* discrimination of certain foreign producers. One critical element of the emissions is “emissions from transport and distribution”. This includes emissions from transport to the EU and intra-EU transport. Although there is certainly a logic in including such emissions into the overall emissions because transport emissions are part of the overall GHG emissions from the use of biofuel, it does lead to a disadvantage specifically for foreign versus domestic biofuels. Given that most competing biofuels are currently produced in the Americas or in South East Asia and therefore require long distance transport, the potential disadvantage becomes obvious. However, default emissions for transport and distribution are relatively low for most biofuels for which the Directive provides that figure, so many types of biofuels will not be affected by the inclusion of transport emissions.⁵⁷ Transport emissions are high for sugar cane ethanol, but the overall default emissions are still well below the threshold related to the 35% savings rate.⁵⁸ An example of a product “affected” by the inclusion of transport emissions is soybean biodiesel, which does not fulfil the minimum emission savings when using default values, but would so if transport emissions were not included. Soybeans are much bulkier than soybean diesel, so the location of the processing plant is crucial for the transport emissions. The EC has calculated the default value by assuming that soybeans are first shipped to the EU and then processed into biodiesel in the EU. But if processed in Brazil (or in the US for US soybeans), the transport emissions would be significantly lower because only the final – less bulky – product would have to be

⁵⁶ Directive 2009/28/EC, Preamble (87): “It is appropriate for the data used in the calculation of the default values to be obtained from independent, scientifically expert sources and to be updated as appropriate as those sources progress their work. The Commission should encourage those sources to address, when they update their work, emissions from cultivation, the effect of regional and climatological conditions, the effects of cultivation using sustainable agricultural and organic farming methods, and the scientific contribution of producers, within the Community and in third countries, and civil society.”

⁵⁷ A high share of transport emissions may also occur within the EU, which would also affect EU biofuels.

⁵⁸ Default emissions for sugar cane ethanol are 15 gCO₂eq/MJ without transport emissions. Transport adds another 9 gCO₂eq/MJ, but the maximum emissions to stay above the 35% emission saving criteria is much higher (54.5 gCO₂eq/MJ).

shipped.⁵⁹ The inclusion of transport emissions can therefore be a significant advantage for soybean processors in or close to exporting countries compared to processors in the EU. There could be cases where a product does not fulfil the GHG savings criteria only because of the location (e.g. if the transport emissions reduce the calculated savings from 36% to 34%). This *de facto* discrimination of foreign producers is arguably inconsistent with GATT Art. III:4.

Another critical element are the default values: The EU provides default values for GHG emissions and saving rates that a producer can use under certain circumstances, as outlined in Part I. Default values are conservative estimates derived from the higher “typical values”, which are defined in the Directive as follows: “*default value*’ means a value derived from a typical value by the application of pre-determined factors and that may, in circumstances specified in this Directive, be used in place of an actual value.” (Art. 2(o))

Although a producer can always get its own GHG savings certified if these are higher than the default values, it is a significant advantage to be able to use the default value – for two reasons: (1) Proof that the GHG saving criteria is fulfilled would be much easier because no producer-specific certification would be necessary and (2) the biofuel would be eligible even if the actual GHG savings of an individual producer were too low.

Even if one assumes that the default values are calculated in a non-discriminatory and objective manner, the fact that default values exist only for a limited number of products and production scenarios could lead to a discrimination of some foreign producers. One example is the default value for EU-produced corn ethanol. A US-producer can not claim that the use of its corn ethanol (which is the main US-produced bio-ethanol) leads to the same GHG emission savings, but instead has to use actual values. Another example is soybean biodiesel, which has a default value of 31%, but only so because the EU made certain assumptions about

⁵⁹ USDA 2009: “According to the RED, biodiesel made from soy oil does not automatically comply with the GHG emission criteria. Omitting any adjustment for indirect land use, the RED’s GHG emission savings default (reference) value for soy diesel is 31 percent, which is below the minimum GHG threshold. On closer examination, this value was calculated using a pathway where soybeans are first shipped from Brazil, then transformed into soy oil and biodiesel in the EU. Using lifecycle analysis, the value for soy-based biodiesel produced in and shipped from the US would be different because it has a different pathway. According to EPA, US soy-based biodiesel has a GHG emission savings value of 80 when it is produced and consumed in the United States. If it is shipped to and consumed in the EU that value falls only slightly. Under the RED, it is possible to use actual numbers and achieve a GHG emission saving that is above the required 35 percent. It is always possible to claim the default value without any supporting documentation. According to Commission officials it should not be a problem for US soy-based biodiesel to comply with the standards that are currently being implemented, but it could be more difficult in the future, when the GHG emission savings threshold increases to 50 percent by 2017, and if or when indirect land use change (ILUC) is taken into account. The higher GHG emission savings threshold of 50 percent is also a potential difficulty for EU-produced rapeseed biodiesel. The RED has made it clear that biofuels GHG emission savings values can be reviewed and updated as new information is made available.”

the production process (see footnote ⁵⁹). Producers of soybean biodiesel with a higher saving rate would have to prove in each case that their saving rate is high enough.

In contrast, the EU has set a default value for rapeseed oil, which is at 38%, just marginally above the 35% threshold. Although we do not know the exact assumptions made by the EU for calculating that value, it is likely that not all producers in the EU reach the threshold of 35%⁶⁰, but they will still be able to claim the default value. In other words: Some producers will get through with biofuel even if the emission savings are too low (e.g. rapeseed with default value of 38%), while others will not. This alone does not necessarily lead to a de facto discrimination of foreign versus domestic biofuels, but the current list of default values appears to be somewhat biased against foreign producers for at least these two products (US corn-based ethanol and US/Brazil soybean biodiesel) and may therefore lead to *de jure* discrimination.

(b) The minimum savings rate is currently set at 35% and will increase to 50% in 2017 and 60% in 2018. It has been argued by Erixon (2009) that these values are chosen arbitrarily and in a way that ensures that certain domestic biofuels will be eligible, and key competing biofuels are not.⁶¹ This argument is apparently made because rapeseed is “suspiciously” close to the 35% threshold (at 38%), while soybean biodiesel is just below (31%). Mitchell & Tran argue that the 35% threshold is more trade-restrictive than necessary⁶² (which however would not make it inconsistent with Art. III). Swinbank argues it is set in an arbitrary manner (2009).⁶³ Part of this criticism seems to be justified. There is no scientific rationale behind using 35% as a threshold. For example, the European Parliament had argued for a 45%

⁶⁰ It is plausible to assume that not each producer has the same GHG savings due to different processing technologies. If actual saving rates for rapeseed oil are distributed across the « typical value » (45%), then it is likely that some would fall below the default value of 38%.

⁶¹ Erixon (2009): “From a legal point of view, the 35% criterion is chosen arbitrarily. There is no specific scientific consensus saying it should be 35% rather than 30% or 40%. The 35% threshold, however, ensures that domestic rapeseed oil will qualify with a small margin but that the default greenhouse gas saving of palm oil biodiesel and soybean biodiesel – the main foreign competitors to domestic rapeseed biodiesel – will not. This is one principal effect of the directive: it effectively closes future market expansion for the main biodiesel competitors.”

⁶² Mitchell & Tran (2009): “Applying this approach, the emissions-related sustainability criteria appear to be more trade restrictive than necessary, because they create a bright-line 35% cut-off in greenhouse gas savings before a biofuel can be counted in calculating gross final consumption of energy from renewable sources. Thus, a biofuel that results in a 34% saving could not be counted.”

⁶³ Swinbank (2009): “It would be extremely difficult, however, to claim that a biofuel that showed a greenhouse gas emission saving of 34 percent (and so did not qualify for support) was not a like product with a biofuel that showed a saving of 35 percent (and so did qualify for support). Unless there are some objective criteria that lie behind the figure of 35 percent, it looks to be quite an arbitrary number, which cannot be used readily to differentiate between products. If the European Parliament’s view had prevailed, that 45 percent was the appropriate benchmark, then importers could legitimately have asked why 45 percent was the “correct” number rather than the 35 percent that had originally been proposed by the Commission.”

threshold. It appears that the value was indeed set by taking into account the emission saving rates of current biofuels. But this is inevitable. The goal of 10% biofuel usage could not be fulfilled if most biofuels would suddenly be deemed unsustainable. Given that rapeseed oil is of major importance for the EU biodiesel industry, it is not surprising that the minimum threshold was not set at, for example, at 40%. But the fact that the threshold has not been set higher is not an indicator of *de facto* origin-based discrimination because if the threshold had been set higher then some foreign biofuels would also be negatively affected. Setting a minimum value is inevitably somewhat arbitrary and it is then inevitable that some biofuels will be above the threshold and some will be below – incl. Community biofuels. But what it does not mean is that *all* biofuel made from, for example, soybeans, do not qualify because producers can always use actual instead of default values.⁶⁴

A 50% threshold applies to all biofuels from 2017 on, independent of when processing facilities started operations.⁶⁵ This threshold would not be reached by the main EU-produced biofuel (rapeseed oil), but it would be reached by one of the main foreign competing products (palm oil diesel).⁶⁶ Setting the value at 50% does therefore not seem to be done in a manner to specifically give advantage to Community-produced biofuels – it could indeed wipe out a large share of the EU’s domestic rapeseed biodiesel production.

Even if one came to the conclusion that the threshold is set in a way to protect domestic producers, the logical question is then whether the value is set too low or too high. If the value were set lower, then more foreign biofuels would be deemed “sustainable”, but also more Community-produced biofuels (e.g. wheat ethanol). This would be of disadvantage to both domestic and foreign biofuels that are above the 35% threshold. If on the other hand the savings rate were set higher, then some foreign producers would gain because rapeseed biodiesel, the major competing product within the EU, would not qualify (which appears to be the case from 2017 on). But other foreign producers would lose. It would not be surprising to hear completely contradictory criticism from WTO members – some arguing that the threshold is set too high and others that it is too low. This becomes clear when comparing the default value of major biofuels in the EU and main potential exporters:

⁶⁴ As argued above, soybean biodiesel would easily qualify if soybeans are processed into biodiesel in Brazil or US instead of in the EU due to then lower transport emissions.

⁶⁵ The 60% threshold that will apply from 2018 is only applicable to biofuel from installations in which production started in 2017 or later.

⁶⁶ Assuming that default values will not change and palm oil is produced with methane extraction.

EU: The EU's biofuel's production is currently composed of 80% biodiesel and 20% bioethanol. The EU mainly produces rapeseed biodiesel and to a smaller extent sunflower biodiesel. It is expected that in 2012 the EU's ethanol production will mostly be based on wheat (40%) and sugar beet (38%).⁶⁷ With respect to the 35% threshold, rapeseed and sunflower biodiesel and sugar beet bioethanol are above the threshold; wheat ethanol's eligibility will depend on its category. However, regarding the 50% threshold, rapeseed biodiesel (counting for the biggest part of EU's biofuel's production), will become ineligible.

Brazil is the second largest producer of ethanol, which is based on sugar cane (the Brazilian biodiesel program is still in its infancy).⁶⁸ However, "*the largest increase in crop area resulting from biofuel expansion would seem to be for soybeans in Brazil.*"⁶⁹ The GHG emission savings of sugar cane ethanol is 71% (default value). Soybean biodiesel has a default rate of only 31%, but may well qualify depending on the location of processing plants, so the saving should not pose a particular problem for Brazil.

Malaysia and Indonesia are the world's biggest exporter of palm oil. Depending on the production process used, palm oil biodiesel may be eligible or not regarding the 35% and 50% thresholds. In a study on the EU's Renewable Energy Directive's implications on Malaysian palm oil trade, the authors clearly stated that with respect to the GHG emission saving criteria, the Directive does not discriminate against biodiesel derived from palm oil compared to other vegetable oil-based biodiesel (for example, those derived from soybean oil and rapeseed oil).⁷⁰

US: The US's biofuel production consists mainly of corn ethanol, with limited biodiesel production. However, the majority of EU's biodiesel imports come from the US.⁷¹ In Regulation 193/2009, the Commission specifies that US biodiesel comes, *inter alia*, from rapeseed, sunflower and soybean.⁷² Only soybean biodiesel does not qualify with respect to the 35% threshold, but the same argument applies for soybean oil from Brazil. Rapeseed and sunflower biodiesel, on the other hand, have default values above 35%. Regarding the 50%

⁶⁷ Jank M.J., Kutas G., Amaral L., Nassar A.M., *EU and US Policies on Biofuels: Potential Impacts on Developing Countries*, The German Marshall Fund of the United States, p. 9.

⁶⁸ Jank M.J., Kutas G., Amaral L., Nassar A.M., *EU and US Policies on Biofuels: Potential Impacts on Developing Countries*, The German Marshall Fund of the United States, pp. 15-16.

⁶⁹ De Santi R., *Biofuels in the European Context : Facts and Uncertainties*, JRC 44464, 2008, p.9.

⁷⁰ Mohd Basri Wahid, Faizah Mohd Shariff, N Balu and Nazlin Ismail, *EU's Renewable Energy Directive: Possible Implications on Malaysian Palm Oil Trade*.

⁷¹ USDA Foreign Agricultural Service, GAIN Report, NL9014, 6/15/2009: 89% of EU biodiesel imports consisted of B99 from the US.

⁷² Commission Regulation (EC) No 193/2009 of 11 March 2009 imposing a provisional anti-dumping duty on imports of biodiesel originating in the United States of America, point 19.

target by 2017, only sunflower biodiesel qualifies. Concerning corn ethanol from the USA, no default value is provided for. The emission savings of US corn ethanol will thus have to be based on actual values. Most probably it will qualify regarding the 35% threshold. On this basis, the US biofuels do not seem to be less favourably treated compared to the EU biofuels with respect to the 35% and 50% GHG emission saving criteria. However, discrimination would derive from the absence of default values for US corn ethanol.

Overall, a strong argument can be made that the setting of the GHG saving thresholds does not lead to a *de facto* origin-based discrimination. It appears that they have not been set so as to afford protection to EU production because some important EU biofuels are below, others above the threshold, and the same can be said for other major producing countries. However, the inclusion of transport emissions could lead to *de facto* origin-based discrimination. Moreover, the setting – or not setting - of default values could also lead to origin-based discrimination unless the EU is willing to provide such default values in a clearly non-discriminatory manner to all commercially important types of biofuels and for a large range of scenarios. According to information obtained from the Commission, the EU would update default values if necessary.

Land-use criteria

Art. 17 (3) to (5) of the Directive contains three land-use criteria. They are related to the preservation of natural ecosystems, which is one of the very reasons of the GHG emission reduction objective, and to the Directive's objective of reducing the GHG emissions.⁷³ The comparison regarding the land-use criteria follows the same principles as those developed above with respect to the GHG emission saving criteria.

We will first analyse the geographical situation of the types of land covered by the Directive's land-use criteria. Secondly, and more importantly, we will examine the location of the biofuels' production in different countries, namely Brazil, Malaysia, Indonesia and South Africa.

Concerning the geographical situation of the types of land covered by the Directive, we will subsequently analyze the three categories, which are highly biodiverse land, land with high

⁷³ Preamble (69)-(73)

carbon stock and peatland. Regarding the first category, primary forest only exists in limited areas in Europe.⁷⁴ The ten countries with the largest area of primary forest account for 89.1 percent of the total area of primary forest in the world. Brazil has the world's largest area of primary forest.⁷⁵ As to the protected highly biodiverse lands, according to the FAO, the trend regarding forest area designated for protective purposes⁷⁶ by legal prescription or by decision of the landowner or manager⁷⁷ shows an overall increase. Regarding highly biodiverse grassland, the criteria and geographic ranges have to be determined by the Commission. With respect to the second category, wetlands and forested areas exist worldwide.⁷⁸ Concerning peatlands, the third category, they are found in all continents.⁷⁹

Turning now to the most relevant part to our analysis of less favourable treatment with respect to land-use criteria, that is the location of the biofuels' production in different countries, it is important to note, as preliminary remark, that the extra demand for biofuels will cause further direct and indirect land-use changes (see also Box 1 above).⁸⁰

In the **EU**, expansion of the arable area is limited by present CAP rules, but if it occurs it would be mostly onto permanent grassland⁸¹ or agricultural land that is currently not used. Art. 17 (3) (c) of the Directive specifies that biofuels shall not be made from raw material obtained from highly biodiverse grassland. However, the Commission has to detail the criteria and geographic ranges for biodiverse grassland.⁸²

In **Brazil**, the expansion of soybean production could negatively affect rainforest. An expansion of sugar cane production could take place partly onto degraded pasture, but largely onto the natural *Cerrado* or ranch land bordering it. The *Cerrado* is considered to be very biodiverse.⁸³ However, "it is believed that sugar cane expansion puts relatively low pressure on protected areas because it mainly takes place on former pasture land, but the impact on

⁷⁴ Global Forest Resources Assessment 2005, FAO Forestry Paper 147, p.39

⁷⁵ Global Forest Resources Assessment 2005, FAO Forestry Paper 147, p.41

⁷⁶ This study is not limited to highly biodiverse land.

⁷⁷ This decision is not covered by the Directive.

⁷⁸ 159 countries are party to Ramsar Convention on Wetlands ;

Forest Resources Assessment 2005, FAO Forestry Paper 147. Chapter 4

⁷⁹ www.peatland.gov.uk/formation/global.htm

⁸⁰ De Santi G., *Biofuels in the European Context : Facts and Uncertainties*, JRC 44464, 2008, p.9.

⁸¹ De Santi G., *Biofuels in the European Context : Facts and Uncertainties*, JRC 44464, 2008, p.10.

⁸² Directive 2009/28/EC, Art. 17(3). As is also the case for the definitions of severely degraded land and heavily contaminated land.

⁸³ De Santi G., *Biofuels in the European Context : Facts and Uncertainties*, JRC 44464, 2008, p.11.

indirect land-use change is not yet fully understood.”⁸⁴ Moreover, areas with prevalence of pristine native vegetation will be protected and cannot be used for sugar cultivation. Harvesting crops in protected areas, such as the Amazon and the Pantanal⁸⁵, is prohibited.⁸⁶ Therefore, the biofuels produced in Brazil may not be deemed unsustainable under the current Directive.

In **Indonesia**, 27% palm oil concessions (planned plantations in 2006) are on peat-forest.⁸⁷ In **Malaysia**, 10% of present plantations are on former peat-forest and a similar figure as the one of Indonesia is expected. However, there is plenty of scope for expanding palm oil production onto degraded forest land and rubber tree plantations but this is less productive and economic.⁸⁸ Therefore, part of Malaysian and Indonesian palm oil biodiesel may not be sustainable pursuant to Art. 17 (3) (a) and (5) of the Directive.

South Africa has an exceptionally high level of biodiversity, much of it endemic, an important consideration when considering land conversion. One impact of special concern regarding biofuels is biodiversity impacts resulting from the conversion of natural land to cropland. Indeed, the grasslands of South Africa are already⁸⁹ extensively transformed for forestry and agriculture.⁹⁰ Therefore, subject to the criteria and geographic ranges for biodiverse grassland established by the Commission, biofuels produced in South Africa may be deemed not sustainable following Art. 17 (3) (c) of the Directive.

In conclusion, if we assume that the EU’s own production will not be greatly constrained by the land-use criteria, Art. 17 (3) to (5) of the Directive seems to *de facto* treat less favourably Malaysian, Indonesian and South African biofuels’ imports. Indeed, *de facto*, the land-use criteria seem to be directed at specific foreign countries, as the types of ecosystems provided for in Art. 17 (3) to (5) are more susceptible to be used for the production process of biofuels in those regions of the world.

⁸⁴ Eisentraut A., *Sustainable production of second-generation biofuels – Potential and perspectives in major economies and developing countries*, Information Paper, OECD/IEA, 2010, p. 107.

⁸⁵ Brazil, which possesses 20% of the entire world’s biodiversity, has six main biomes, the largest of which is the Amazon biome, covering 49% of the land area, followed by the Cerrado biome (24%), Atlantic Forest (13%), Caatinga biome (10%, and the Pampa and Pantanal biomes.

⁸⁶ Eisentraut A., *Sustainable production of second-generation biofuels – Potential and perspectives in major economies and developing countries*, Information Paper, OECD/IEA, 2010, p. 107.

⁸⁷ This figure concerns the year 2006. However, Art. 17 (5) of the Directive concerns land that was peatland in 2008. But, as mentioned above, the 10% target will lead to increased land-use change.

⁸⁸ De Santi G., *Biofuels in the European Context : Facts and Uncertainties*, JRC 44464, 2008, p.10.

⁸⁹ It has to be mentioned that only grassland in 2008 or after is taken into account by the Directive.

⁹⁰ Eisentraut A., *Sustainable production of second-generation biofuels – Potential and perspectives in major economies and developing countries*, Information Paper, OECD/IEA, 2010, p. 170.

Thus, Art. 17 (3) to (5) of the Directive 2009/28/EC may be seen as according less favourable treatment to those imports coming from Indonesia, Malaysia and South Africa.

GATT Art. III:4: Conclusion

The *overall conclusion* is therefore that the GHG emission saving criteria provided for in Art. 17(2) of the Directive do most probably violate Art. III:4 GATT only with respect to the setting of default values – although it is likely that the EU would adapt default values over time - and possibly the inclusion of transport emissions. As to the land-use criteria, they may violate Art. III:4 GATT. However, an exemption justifying the implementation of the trade restrictive measure might be available under Art. XX GATT.

Before analysing the general exceptions clause under Art XX GATT, we will examine the consistency of the sustainability criteria regarding Art. I GATT requiring the MFN Treatment and, in the alternative, Art. XI GATT concerning the general elimination of quantitative restrictions.

Consistency with GATT Article I (MFN Treatment)

We will now deal with the question of whether the sustainability criteria fulfil the conditions under Art. I GATT.

Art. I:1 GATT prohibits discrimination between like products from different third countries (in contrast to Art. III, which deals with discrimination between imports and domestic products). Art. I:1 reads as follows:

“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 or 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.”

Art. I GATT provides for the *Most Favoured Nation Treatment*, according to which *de jure* and *de facto* discrimination based on national origin between “like” imports from different countries is prohibited. Any measure listed in Art. I:1 GATT granting an advantage to one country in relation to “like” products needs to be extended “immediately and unconditionally” to all WTO Members. Otherwise the measure would violate Art. I GATT.

Thus it has to be analysed in a cumulative manner whether the Directive creates a trade “advantage”, whether the products concerned are “like products” and whether the advantage at issue is granted immediately and unconditionally to all like products from other WTO Members.

First, the “advantage” must be provided for by a measure referred to in Art. III GATT. The Directive, as explained under the section on national treatment, falls within the scope of Art. III:4 GATT and therefore is subject to Art. I GATT. As we have outlined above, it is a major advantage for producers of biofuels if their biofuel fulfils the sustainability criteria because this will be the decisive factor for whether the biofuel can be sold in the EU. Indeed, the

Directive establishes a link between the sustainability criteria and the financial support, which amounts to an advantage, and only allows sustainable biofuels or bioliquids to get this financial support.⁹¹ Panel and AB reports reflect the wide scope of the term “advantage” under Art. I:1 GATT. In the *Canada-Autos* case, the AB clarified that *any* advantage is encompassed by Art. I GATT. For instance, exemptions from a fee or tax benefits have been considered as an “advantage”. Thus, as the financial support under the Directive mostly consists of tax exemptions, it has to be considered as an advantage.

Second, with respect to the concept of “like products”, it has a different meaning depending on the context in which it is used. For Art. I GATT, only a few GATT Working Party and Panel reports have addressed the meaning of the term “like products”. However, it is worth mentioning that in the *Spain-Unroasted Coffee* case, the panel examined the characteristics of the products, their end-uses and the tariff classification of other Members. Moreover, according to *Van den Bossche*, the consumers’ tastes and habits would also be taken into account under the “likeness” issue. As under Art. III:4 GATT, the dominant position considers that PPMs are of no relevance under the “likeness” analysis if they are non-product related. Therefore, following our analysis under Art. III:4 GATT, unsustainable biofuels will most probably be considered as *like* sustainable biofuels.

Third, it has to be examined whether the financial support is granted “immediately and unconditionally” to all biofuels. In this respect, it is worth mentioning that according to the *Canada-Autos* case, Art. I:1 GATT prohibits discrimination as to the origin and “the fact that conditions attached to such an advantage are not related to the imported product itself does not necessarily imply that such conditions are discriminatory with respect to the origin of imported products.”⁹²

Therefore, it is of importance to analyse whether the sustainability criteria *de facto* discriminate based on origin between the “like” imported products. Based on our analysis under Art. III:4 GATT, the GHG emission saving criteria most probably do not violate this provision, except possibly for the default values and the inclusion of transport emissions. Regarding the land-use criteria, as they concern *de facto* specific regions of the world, it is possible that they will also violate Art. I:1 GATT.

⁹¹ Directive 2009/28/EC, Art. 17(1). Preamble (76) mentions a price premium for sustainable biofuels and bioliquids.

⁹² Appellate Body Report, *Canada – Certain Measures Affecting the Automotive Industry*, WT/DS139/AB/R (adopted June 19, 2000), para. 10.24.

Therefore, the advantage under the Directive, i.e. financial support, is not granted “immediately and unconditionally” to all “like” biofuels, as *de facto* discrimination exists with respect to certain imported unsustainable biofuels compared to other imported biofuels.

In conclusion, following our analysis of the three cumulative conditions of Art. I GATT, the sustainability criteria violate Art. I:1 GATT because of the existence of *de facto* discrimination. However, it has to be further analysed whether those violations can be justified under Art. XX b) and g) GATT.

In the alternative, consistency with GATT Article XI

If the WTO Panel or Appellate Body were to decide that the sustainability criteria are not covered by Art. III GATT, Art. XI GATT would have to be applied. Indeed, according to the *Ad Note* Art. III GATT, which establishes the relationship between Art. III GATT and Art. XI GATT, only if Art. III GATT does not apply, Art. XI GATT is applicable.

Art. XI GATT contains a general prohibition on quantitative restrictions on importation and exportation of any product from any contracting party. Therefore, it has to be analysed whether the sustainability criteria restrict the importation of biofuels from other contracting parties.

“1. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licenses or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.”

The following analysis will focus on the exclusion of “duties, taxes or other charges” from the scope of application of Art. XI GATT and on the meaning of “restriction on importation” and its application to the sustainability criteria.

First, Art. XI GATT does not apply to restrictions or prohibitions imposed by “duties, taxes or other charges”. The financial support provided for under Art. 17 (1) of the Directive does not fall within the exception of Art. XI GATT. Indeed, this financial support, in the form of *inter alia* tax exemptions, is a *support* for imported or domestic sustainable biofuels. Thus it is *not* a financial *charge* imposing a prohibition or restriction on unsustainable biofuels. As will be explained below, the reason why this unsustainable biofuel is not marketable is due to its high costs. Therefore, the sustainability criteria fall under the scope of Art. XI GATT.

Second, in the *India-Autos* case, the Panel specified with respect to Art. XI GATT that the meaning of “restriction on importation” is not necessarily “limited to measures which directly relate to the ‘process of importation’” and “might encompass measures which otherwise relate to other aspects of the importation of the product.” In other words, “any form of limitation imposed on, or in relation to importation constitutes a restriction.”⁹³

The Directive 2009/28/EC does not contain an explicit restriction on the importation of biofuels. However, if biofuel cannot fulfil the sustainability criteria, then this has a significant restrictive impact on its marketability within the EU. Indeed, there is no incentive to use those biofuels unless their price would go below the price of fossil fuel, which is not yet the case.⁹⁴ Thus, it amounts to a “restriction on importation” through “other measures”. This is moreover supported by the Panel’s statement in the *Brazil-Tyres* case that fines on the importation, marketing, transportation, keeping and warehousing of imported tyres constituted a restriction on importation.⁹⁵

Therefore, in the alternative, the Directive 2009/28/EC could be seen as a restriction on the importation of biofuels and would therefore violate Art. XI GATT. In this case, the general exceptions under Art. XX (b) and (g) GATT have to be analysed.

⁹³ Panel Report, *India – Measures Affecting the Automotive Sector*, WT/DS146, 175/R (adopted Apr. 5, 2002), para.7.257).

⁹⁴ Commission Staff Working Document, accompanying document to the Communication from the Commission: *Renewable Energy Road Map: Renewable energies in the 21st century: building a more sustainable future*, Impact Assessment, 10/01/2007.

However, this view is challenged by the tension that exists between the sustainability criteria and the targets relating to share of energy from renewable sources. The Directive entails a necessary increase of EU imports due notably to the 10% biofuel target.

⁹⁵ Panel Report, *Brazil-Measures Affecting Imports of Retreated Tyres*, WT/DS332/R (adopted Jun. 12, 2007), paras. 7.3 and 7.61

Consistency with GATT Article XX (General Exceptions)

If the EU's biofuel policy were found to be inconsistent with GATT Art. I, III or XI, then it could still be justified through the *general exceptions* clause provided for in GATT Article XX, which states in its relevant part:

“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:

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

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

Both the conditions of the relevant paragraph(s) and the general provisions of the chapeau have to be fulfilled. In *US-Gasoline*, the AB argued that *[I]n order that the justifying protection of Article XX may be extended to it, the measure at issue must not only come under one or another of the particular exceptions — paragraphs (a) to (j) — listed under Article XX; it must also satisfy the requirements imposed by the opening clauses of Article XX. The analysis is, in other words, two-tiered: first, provisional justification by reason of characterization of the measure under XX(g); second, further appraisal of the same measure under the introductory clauses of Article XX.*

We therefore need first to assess whether the possibly inconsistent measures can be justified under either paragraph (b) or (g), and then whether the conditions of the chapeau of Article XX are fulfilled. Both paragraph (b) and (g) can arguably be related to environmental issues, but which one is more applicable depends on the specific sustainability criteria.

There have been several cases related to environmental issues where the AB assessed whether a measure can be justified under Article XX, notably *US-Gasoline* and *US-Shrimp*. In *EC-Asbestos*, the AB upheld relevant findings of the Panel. *Brazil-Retreated Tyres* is also of relevance. In particular *US-Gasoline* and *US-Shrimp* were cases about PPM measures.

Charnovitz (2002) argues that the AB has made it clear in US-Shrimp that PPMs can in principal be justified under Article XX.

Justification of exception with Article XX(b):

The first specific exception that we analyze is Art. XX (b) GATT relating to the protection of human, animal or plant life or health :

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

The sustainability criteria inconsistent with Artt. III and I GATT and, in the alternative, with Art. XI GATT, can be provisionally justified under Art. XX (b) GATT if they are designed to protect life or health of humans, animals or plants and the measure is necessary to fulfil that policy objective. Moreover, the extraterritorial application of the Directive has to be analyzed. First, concerning the question of whether the sustainability criteria are designed to protect life or health of humans, animals or plants, in the *EC-Tariff Preferences* case, the Panel ruled that not only the express provisions of the legislation or measures have to be considered, but also the design, structure and architecture of this legislation or these measures.

In order to determine whether the sustainability criteria are designed to protect life or health of humans, animals or plants and thus to determine the Directive's objective(s), we analyse the Directive, including its preamble. The Directive pursues two distinct objectives with its sustainability criteria. On the one hand, the GHG emission saving criteria aim at the reduction of the GHG emissions relating to biofuels and thus concern climate change.⁹⁶ On the other hand, the land-use criteria partly overlap with this first objective concerning the reduction of GHG emissions⁹⁷, but encompass also a second objective relating to the preservation of specific types of land and is thus an environmental objective.⁹⁸

As they pursue these two objectives, both sustainability criteria may be considered as designed to protect life or health of humans, animals or plants. Indeed, both sustainability criteria concern climate change, which could possibly cause serious damage to humanity and

⁹⁶ Art. 17 (2) of the Directive and its Preamble (1).

⁹⁷ Art. 17 (3)-(5) of the Directive and its Preamble (70)-(72)

⁹⁸ Art. 17 (3)-(5) of the Directive and its Preamble (69)

natural ecosystems⁹⁹ due to the alteration of the atmosphere, including within the EU. Those damages relate to health and life risks for humans, animals and plants. Thus, the GHG emission saving criteria and the land-use criteria, which intend to prevent those damages, fall within the scope of Art. XX (b) GATT. As to the second objective pursued by the land-use criteria relating to the preservation of specific lands, it has to be mentioned that in the *Brazil-Tyres* case the Panel ruled that a party invoking environmental policy measures under Art. XX (b) GATT “has to establish the existence not just of risks to the environment generally, but specifically of risks to animal or plant life or health.”¹⁰⁰ The preservation of specific types of land aims at preventing the conversion of those types of land for biofuel’s production and therefore risks of damages to the ecosystems (life and health of animals and plants) and thus to humans.¹⁰¹ Thus, the land-use criteria fall within the scope of Art. XX (b) GATT.

Second, we will analyze the necessity of the sustainability criteria to achieve the Directive’s objectives. Firstly, it has to be mentioned that “WTO Members have the right to determine the level of protection of health that they consider appropriate in a given situation.”¹⁰² Secondly, the necessity test under Art. XX (b) GATT involves “a weighing and balancing process”, which “begins with an assessment of the ‘relative importance’ of the interests or values furthered by the challenged measure”, and also involves an assessment of other factors, which are “the contribution of the measure to the realization of the ends pursued by it” and “the restrictive impact of the measure on international commerce”.¹⁰³ Moreover, possible alternatives have to be envisaged. We will thus examine these three conditions and the possible alternatives.

Concerning the relative importance of the interests or values furthered by the sustainability criteria, “the more vital or important the common interests or values pursued, the easier it would be to accept as necessary measures designed to achieve those ends.”¹⁰⁴ As mentioned above, both objectives pursued by the Directive with its sustainability criteria are related to

⁹⁹ Framework Convention of the United Nations on Climate Change, 1992, Preamble.

¹⁰⁰ Panel Report, *Brazil-Measures Affecting Imports of Retreated Tyres*, WT/DS332/R (adopted Jun. 12, 2007), Para. 7.46

¹⁰¹ For instance, the Convention on Biological Diversity of June 1992 states in its Preamble « the intrinsic value of biological diversity and of the ecological (...) values of biological diversity and its components » ; « the importance of biological diversity for evolution and for maintaining life sustaining systems of the biosphere » ; « conservation and sustainable use of biological diversity is of critical importance for meeting the food, health and other needs of the growing world population ».

¹⁰² Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 168

¹⁰³ Appellate Body Report, *Brazil-Measures Affecting Imports of Retreated Tyres*, WT/DS332/AB/R (adopted Dec. 17, 2007), paras. 139-143.

¹⁰⁴ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 172

the protection of human, animal and plant life or health. In the *Brazil-Tyres* case, the Panel stated regarding this first condition that “few interests are more vital and important than protecting human beings from health risks, and that protecting the environment is no less important.”¹⁰⁵ Therefore, the interests protected by the Directive can be considered as vital and important.

Regarding the second condition relating to the contribution of the measure to the realization of the ends pursued by it, in the *Brazil-Tyres* case, the AB specified that “[s]uch a contribution exists when there is a genuine relationship of ends and means between the objective pursued and the measure at issue”.¹⁰⁶ In the *EC-Asbestos* case, the AB specified that a risk may be evaluated either in quantitative or qualitative terms.¹⁰⁷ Our analysis will be made in qualitative terms with respect to both criteria.

Concerning the GHG emission saving criteria, increasing the share of energy from renewable sources in the Community’s energy consumption *contributes* to the Directive’s first objective of reducing GHG emissions. Renewable energy, including biofuels, is one available tool to reduce GHG emissions and thereby to limit climate change. However, this objective could only be partly achieved without the determination of GHG emission saving criteria, as some biofuels do not actually guarantee emission savings. Therefore, the GHG emission saving criteria, which gradually expand from 35% to 50% and 60% and are related to financial incentives, arguably *contribute* to the Directive’s objective of reducing GHG emissions and thereby *contribute* to protect human, animal and plant life and health.

Regarding the land-use criteria, they pursue two objectives. Some types of land covered by the Directive pursue the first objective relating to the reduction of GHG emissions. For instance, wetlands, including peat-land, are considered the most biologically diverse of all ecosystems and perform two important functions in relation to climate change. They have mitigation effects through their ability to store CO₂, and adaptation effects through their ability to store and regulate water. Due to the high carbon stocks of those lands, the biofuels produced on those lands would never fulfil the GHG emission saving criteria. In line with our reasoning concerning the GHG emission saving criteria, some land-use criteria *contribute* to the Directive’s objective of reducing GHG emissions and thereby *contribute* to protect

¹⁰⁵ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 144

¹⁰⁶ Appellate Body Report, *Brazil-Measures Affecting Imports of Retreated Tyres*, WT/DS332/AB/R (adopted Dec. 17, 2007), paras. 145.

¹⁰⁷ Appellate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos Containing Products*, WT/DS135/AB/R (adopted Apr. 5, 2001), para. 167

human, animal and plant life and health. As to the second objective concerning the preservation of specific types of land, the land-use criteria also *contribute* to this goal and thereby *contribute* to protect human, animal and plant life and health. Indeed, only biofuels from “sustainable” lands are taken into account for the 10% mandatory target and can benefit from the financial support. The exceptions¹⁰⁸ to the land-use criteria also reveal the contribution of these criteria to the objective of reducing GHG emissions and of preservation of specific types of land.

Therefore, overall the sustainability criteria will lead to reduced imports of unsustainable biofuels and thus contribute to the Directive’s both objectives, which are the reduction of GHG emissions and the preservation of specific types of land.

Moreover, the *necessity* of the sustainability criteria in terms of material contribution is supported by the *Roundtable on Sustainable Biofuels Principles and Criteria for Sustainable Biofuel Production*, which encompass the sustainability criteria provided for in Art. 17 of the Directive.¹⁰⁹

Turning now to the third condition concerning the restrictive impact of the measure on international commerce, in the *Brazil-Tyres* case, the AB stated that though an import ban is as trade restrictive as possible, it can nevertheless be necessary. However, where it produces effects as severe as those resulting from an import ban it must make a material contribution to the achievement of the objective, rather than a marginal contribution.¹¹⁰ *A contrario*, the less trade restrictive a measure is, the lower is the required level of contribution. With respect to the Directive, it does not impose an import ban, as unsustainable biofuels can still be imported within the EU. However, they will, *inter alia*, not be eligible for financial support. Therefore, the contribution does not need to be material, but less than material. Based on our analysis under the second condition of the necessity test, it can be concluded that the contribution of the sustainability criteria to the Directive’s both objectives is more than marginal.

Concerning the possible alternatives, they must be less trade restrictive than the measure at issue, they must preserve the responding member’s right to achieve its desired level of protection with respect to the right pursued and they must be reasonably available, that is they must not be unduly burdensome and the member is capable of undertaking it. Considering the

¹⁰⁸ Art. 17(3) (b), (c) (ii), (4) (c), (5) of the Directive

¹⁰⁹ This point will be further developed under the chapeau of Art. XX GATT.

¹¹⁰ Appellate Body Report, *Brazil-Measures Affecting Imports of Retreated Tyres*, WT/DS332/AB/R (adopted Dec. 17, 2007), paras. 150-151

level of protection set by the EU, it is very difficult to find reasonably available less trade restrictive measures.

Finally, it has to be further examined whether the extraterritorial application of the Directive is consistent with Art. XX GATT. First, Art. XX b) GATT does not specify the policy area. Second, in the *US-Shrimp* case, the Appellate Body did not explicitly make a finding on whether there is a jurisdictional limitation under Art. XX GATT. However, it did note a *required nexus* between the object of protection and the territory or jurisdiction of the regulating country. In the *US-Shrimp* case, the AB found a sufficient nexus between the endangered sea turtle species and the US because these species are known to occur in waters over which the US exercises jurisdiction, and, more importantly, these turtles are globally endangered. Under the Directive 2009/28/EC, the objects of protection are the atmosphere and the natural resources and species. The land-use criteria are intended to protect the atmosphere against GHG emissions. Part of the atmosphere is under the EU Member States' jurisdiction. Moreover, GHG emissions are a global danger for the atmosphere.

The land-use criteria, and primarily the land-use criterion concerning biodiverse land pursue the objective of preservation of the land specified in the Directive. Some natural resources and species protected by the Directive occur in territories over which the EU Member States have jurisdiction. Moreover, the Convention on Biological Diversity¹¹¹, to which 157 States are parties, including the EC, has as objective the conservation of biological diversity and the sustainable use of its components.¹¹² Therefore, applying the *US-Shrimp* criteria to this case, it may be concluded that a *sufficient nexus* exists between the objects of protection occurring in the EU and the EU Member States.

Therefore, we conclude that the GHG emission saving criteria and land-use criteria fall within the scope of Art. XX (b), are necessary to protect human, animal and plant life and health pursuant to Art. XX (b) GATT and are consistent with the required jurisdictional nexus. Before analysing the sustainability criteria under the chapeau of Art. XX GATT, we turn to the second relevant specific exception under Art. XX (g) GATT.

¹¹¹ For an analysis of the relevance of other rules of international law to the interpretation of the WTO agreements, see Panel Report, *European Communities – Measures Affecting the Approval and Marketing of Biotech products*, WTO/DS291/R, WTO/DS292/R, WTO/DS293/R (adopted Sept. 27, 2006)

¹¹² Convention on Biological Diversity, concluded at Rio de Janeiro on 5 June 1992, Art.2.

Justification of exception with Article XX(g):

The second specific exception that we analyze is Art. XX (g) GATT relating to the conservation of exhaustible natural resources:

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

The sustainability criteria inconsistent with Artt. III and I GATT and, in the alternative, with Art. XI GATT, can be provisionally justified under Art. XX (b) GATT if they relate to the *conservation of exhaustible natural resources*, they *relate to* the conservation of exhaustible natural resources and they are made effective in conjunction with restrictions on domestic production or consumption. Moreover, the extraterritorial application of the Directive has to be analyzed.

As preliminary remark, it has to be mentioned that this provision must be read by a treaty interpreter in the light of contemporary concerns of the community of nations about the protection and conservation of the environment.¹¹³

With respect to the first condition relating to the notion of “conservation of exhaustible natural resources”, in the *US-Shrimp* case, the AB stated that “Article XX (g) is not limited to the conservation of mineral or non-living natural resources.”¹¹⁴ Indeed, “living species, though in principle, capable of reproduction and, in that sense, “renewable”, are in certain circumstances indeed susceptible of depletion, exhaustion and extinction.”¹¹⁵ With respect to the Directive, we have to distinguish between two exhaustible natural resources that the EU wants to protect through the sustainability criteria: the atmosphere and natural ecosystems. The GHG emission saving criteria shall ensure that the use of biofuel leads to a reduction of GHG emissions. The natural resource that one thereby wants to protect against climate change is the *atmosphere*. As explained in the previous section, land-use criteria aim at preserving important *natural ecosystems* and at the avoidance of important CO2 emissions.

¹¹³ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.129

¹¹⁴ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.128

¹¹⁵ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.129

The atmosphere and natural ecosystems are exhaustible natural resources. The atmosphere has only a limited absorption capacity for CO₂ and other greenhouse gases. It is worth mentioning that in the *US-Gasoline* case, the Appellate Body has ruled that clean air qualifies as exhaustible resource because it could be exhausted by pollutants such as those emitted through the consumption of gasoline.¹¹⁶ Moreover, in the *Brazil-Tyres* case, the AB already referred to climate change as an example.¹¹⁷

Arguably, natural ecosystems are also exhaustible resources. Even renewable resources are in certain circumstances susceptible of exhaustion and extinction.¹¹⁸ For example, although primary rainforest is in principal a renewable resource, it takes a very long time (by human standards) to re-grow. In the *US-Gasoline* case, forests were also considered as natural resources that could be exhausted by air pollution.¹¹⁹

Regarding the second condition, it has to be mentioned that in contrast to Art. XX (b) GATT requiring “necessity”, the measure in place only needs to be *related* to the conservation of natural resources. The AB, in the *US-Gasoline* case, argued that “[I]t does not seem reasonable to suppose that the WTO Members intended to require, in respect of each and every category, the same kind or degree of connection or relationship between the measure under appraisal and the state interest or policy sought to be promoted or realized.”

The term “relating to” has been interpreted by the AB as being equivalent to “primarily aimed at”¹²⁰ or “reasonably related to” or as requiring a “close and real” relationship between the measure and the policy objective.¹²¹ Therefore, it has to be analyzed whether the sustainability

¹¹⁶ Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R (adopted Jan. 29, 1996), para. 6.36.

¹¹⁷ WT/DS332/AB/R, para. 150: “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.”

¹¹⁸ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.128

¹¹⁹ Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R (adopted Jan. 29, 1996), para. 6.36.

¹²⁰ Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (adopted May 20, 1996), page 17: “All the participants and the third participants in this appeal accept the propriety and applicability of the view of the *Herring and Salmon* report and the Panel Report that a measure must be “primarily aimed at” the conservation of exhaustible natural resources in order to fall within the scope of Article XX(g).”

¹²¹ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.141

criteria are *reasonably related* to the legitimate policy of preserving exhaustible natural resources, which are the atmosphere and natural ecosystems. In that regard, in the *US-Shrimp* case, the AB examined the relationship between the general structure and design of the measure and the policy goal it purports to serve.¹²² In this case, the AB concluded to the fulfilment of the second condition regarding “relating to”, as the measure was not disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation of sea turtle species, and the means and ends relationship between the measure and the legitimate policy of conserving an exhaustible, and, in fact, endangered species, was a close and real one.¹²³ As explained above, the sustainability criteria shall ensure that the net effect on GHG emissions is positive (i.e. emissions are reduced). Moreover, land-use criteria aim at minimizing the effect of increased production of biofuels on land that should be preserved. The sustainability criteria are “fairly narrowly focused” and are not a “simple blanket” restriction on trade. Indeed, the exceptions¹²⁴ to the land-use criteria reveal the *reasonable relationship* between the criteria and the policy objective of conservation of the atmosphere by the reduction of GHG emissions and natural ecosystems by the preservation of important specific lands. Moreover, with respect to the GHG emission saving criteria, the gradual increase of the GHG saving rates and the availability of both default and actual values for the calculation of the saving rates show a *reasonable relationship* between the criteria and the conservation of the atmosphere. Therefore, it can be concluded that the sustainability criteria are *reasonably related to* the conservation of the atmosphere and natural ecosystems and species.

The fact that the sustainability criteria are related to the conservation of exhaustible natural resources is moreover evidenced by the *Roundtable on Sustainable Biofuels Principles and Criteria for Sustainable Biofuel Production*, which encompasses the sustainability criteria provided for in Art. 17 of the Directive.¹²⁵

The extraterritorial application of the Directive has also to be analysed under Art. XX (g) GATT. Following the same reasoning as under Art. XX (b) GATT, it can be concluded that the extraterritorial application of the sustainability criteria is consistent with the required nexus.

¹²² Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.137

¹²³ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.137-142

¹²⁴ Art. 17(3) (b), (c) (ii), (4) (c), (5) of the Directive

¹²⁵ This point will be further developed under the chapeau of Art. XX GATT.

Finally, the GHG saving criteria and land-use criteria must be made effective in conjunction with restrictions on domestic production or consumption. “The clause is a requirement of even-handedness in the imposition of restrictions”.¹²⁶ In other words, it does not require equality of treatment between imported and domestic products. With respect to the sustainability criteria, as they apply to both imported and domestic biofuels, they are made effective in conjunction with restrictions on domestic production or consumption.

Therefore, we conclude that the GHG saving criteria and the land-use criteria are related to the conservation of exhaustible natural resources, comply with the required jurisdictional nexus and are made effective in conjunction with restrictions on domestic production or consumption. We now have to evaluate whether the sustainability criteria fulfil the conditions of the chapeau under Art. XX GATT.

¹²⁶ Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (adopted May 20, 1996), 19

Chapeau of Article XX:

“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:

The Art XX GATT *chapeau* addresses the manner in which the measure at issue is “applied”. Moreover, the purpose of the *chapeau* is to prevent the “abuse of the exceptions”, as stated in the *US-Gasoline* case.¹²⁷ Even though strong arguments exist that the conditions of paragraphs (b) and (g) are fulfilled, the measure would *violate* the *chapeau* if the following three conditions are given: (1) There is differential treatment; (2) that differential treatment is arbitrary or unjustifiable or a disguised restriction on international trade¹²⁸ and (3) it is *between countries where the same conditions prevail*.¹²⁹ In the *US-Gasoline* case, the Appellate Body accepted that the discrimination could occur not only between different exporting Members, but also between exporting Members and the importing Member concerned.¹³⁰ We will now evaluate each of these three conditions separately in reverse order.

Discrimination between Members where the same conditions prevail

Discrimination occurs first of all between different types of biofuels and / or different producers. Producers in different countries that produce the same biofuels under the same conditions would not be treated differently. Regarding the land-use criteria, there is certainly a

¹²⁷ Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (adopted May 20, 1996), page 20: The *chapeau* by its express terms addresses, not so much the questioned measure or its specific contents as such, but rather the manner in which that measure is applied. It is, accordingly, important to underscore that the purpose and object of the introductory clauses of Article XX is generally the prevention of “abuse of the exceptions of [what was later to become] Article [XX].”

¹²⁸ Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (adopted May 20, 1996), page 23: “Arbitrary discrimination”, “unjustifiable discrimination” and “disguised restriction” on international trade may, accordingly, be read side-by-side; they impart meaning to one another.

¹²⁹ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para. 150

¹³⁰ Appellate Body Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/AB/R (adopted May 20, 1996), page 23: “It may be observed that the term “countries” in the *chapeau* is textually unqualified; it does not say “foreign countries”, as did Article 4 of the 1927 League of Nations *International Convention for the Abolition of Import and Export Prohibitions and Restrictions*, 97 L.N.T.S. 393. Neither does the *chapeau* say “third countries” as did, e.g., bilateral trade agreements negotiated by the United States under the 1934 *Reciprocal Trade Agreements Act*; e.g. the *Trade Agreement between the United States of America and Canada*, 15 November 1935, 168 L.N.T.S. 356 (1936).” Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para. 150

different treatment of countries where the biofuels production will take place on land covered by the land-use criteria provided for in the Directive. However, although the EU production of biofuels is mainly not going to take place on land covered by the land-use criteria, the land foreseen in Art. 17 of the Directive is also partly present in the EU. The inclusion of transport emissions do not discriminate because different conditions prevail with respect to the distance to the final consumer. The absence of default values could however be seen as a discrimination between Members where the same conditions prevail.

Arbitrary or unjustifiable discrimination

On the basis of the wording of the Directive and assuming a consistent application in line with this language, there are strong arguments supporting the *absence* of arbitrary and unjustifiable discrimination between countries where the same conditions prevail. For discrimination to be *unjustifiable or arbitrary*, the resulting discrimination must have been foreseen and is not *inadvertent or unavoidable*. Moreover, the *nature and quality* of this discrimination must be different from the discrimination in the treatment of products which was already found to be inconsistent with one of the substantive obligations of the GATT.¹³¹

With respect to the absence of a default value for US corn ethanol and default values for soybean biodiesel with other production scenarios, the discrimination may be qualified as *unjustifiable*. Indeed, the main EU-produced and exported biofuels are assigned default values. However, this is a relatively minor issue and can easily be solved if the EU is willing to assign additional default values in such cases.

Regarding the transport emissions included in the calculation of the emission savings, it is logical and consistent that they are taken into consideration with the same arguments that support why other emissions (during production and processing) should be taken into consideration, i.e. to get a true figure in order to achieve the Directive's objective of reducing the GHG emissions.

In the *US-Shrimp* case, the Appellate Body decided that the application of the US measure led to *unjustifiable* discrimination. Indeed, the measure at issue is a government policy standard, which in its application reveals to be coercive and inflexible: "The actual application of the measure, (...), requires other WTO members to adopt a regulatory program that is not merely comparable, but rather essentially the same, as that applied to the United States shrimp trawl

¹³¹ Panel Report, *United States – Standards for Reformulated and Conventional Gasoline*, WT/DS2/R (adopted Jan. 29, 1996), p.29.

vessels...”¹³² Moreover, the US measure contained only limited exceptions. Second, under the measure at issue, the US did not permit imports of shrimp harvested by commercial shrimp trawl vessels using TEDs, if those shrimp originated in waters of countries not certified under Section 609. The AB stated “We believe that discrimination results not only when countries in which the same conditions prevail are differently treated, but also when the application of the measure at issue does not allow for any inquiry into the appropriateness of the regulatory program for the conditions prevailing in those exporting countries.”¹³³ Third, the United States failed to engage in serious, across-the-board negotiations with the objective of concluding bilateral or multilateral agreements.¹³⁴ Moreover, the US did not negotiate equally with all WTO Members exporting shrimp to the US. Finally, the rigidity and inflexibility in the application of the measure have also been considered by the AB as an *arbitrary* discrimination.¹³⁵

The Directive 2009/28/EC establishes sustainability criteria, which are *how-produced* standards. That is to say that they are not aimed at foreign governments, as is the case with government policy standards, but at economic actors. Moreover, the Directive imposes limited negative obligations with respect to the sustainability criteria, allowing thus all other methods of production. By contrast, the US measure in the *US-Shrimp* case imposed the use of a particular production method, excluding all others. In other words, the sustainability criteria under the Directive are not as far reaching as the US measure in the *US-Shrimp* case.

The Directive is *flexible* with respect to its sustainability criteria. Concerning the land-use criteria, in certain circumstances, evidence may be provided by Members, in order for the provision not to apply (Art. 17(3) (b), (c) (ii), (4) (c), (5)). As to both sustainability criteria, it should be pointed out that for the verification of compliance of the biofuels with those criteria, Member States shall require economic operators to show that the sustainability criteria have been fulfilled. However, the Commission may decide that bilateral or multilateral agreements with third countries containing provisions on sustainability criteria that *correspond* to those of this Directive demonstrate that biofuels produced from raw materials cultivated in those countries comply with the sustainability criteria. Moreover, the

¹³² Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para.163.

¹³³ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para. 165.

¹³⁴ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), paras.166-171

¹³⁵ Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R (adopted Nov. 6, 1998), para. 177.

Commission may decide that voluntary national or international schemes setting standards for the production of biomass products contain accurate data for the purposes of Article 17(2) or demonstrate that consignments of biofuel comply with the land-use criteria set out in Article 17(3) to (5).¹³⁶ With respect to bilateral and multilateral agreements it is explicit from the wording of Art.18(4) of the Directive that the Community *shall* endeavour such agreements. This shows that the Directive contains a strong incentive for such negotiations, in compliance with the requirement stated in the *US-Shrimp* case. Moreover, most of the sustainability criteria are in line with international standard schemes, such as the *Roundtable on Sustainable Biofuels Principles and Criteria for Sustainable Biofuel Production*.

The Roundtable is an international initiative bringing together farmers, companies, non-governmental organizations, experts, governments, and inter-governmental agencies from many different countries concerned with ensuring the sustainability of biofuels production and processes. As to the Principles and Criteria, they have a normative value and are effective since 1 January 2010. The content of the RSB Standard will be implemented through a certification system applicable to biofuel operations throughout the world.

Regarding the **land-use criteria**, Principle 7 of the RSB standards addresses the issue of biodiversity as conservation value in specifying that biofuel operations shall avoid negative impacts on biodiversity. This is in line with the first land-use criterion in Art. 17(3) of the Directive. Second, the *RSB Guidance* takes as example for conservation values the peatlands and primary forest, two land-use criteria in the Directive 2009/28/EC (Art. 17(3) (a), (5)). Third, “wetlands” and peatlands in Art. 17 (4) (a) and (5) of the Directive are covered by Principle 9 of the RSB standards, which specifies that biofuel operations shall maintain or enhance the quality and quantity of surface and ground water resources.

With respect to the **emission saving criteria**, the RSB standards include the principle that biofuels shall contribute to climate change mitigation by *significantly* reducing GHG emissions as compared to fossil fuels (Principle 3). In that regard, it is specified that the biofuels subject to such policy shall comply with it. It is worth mentioning that the EU Renewable Energy Directive is taken as example in the *RSB Guidance* on those Principles and Criteria. Concerning the share of emission saving, a pilot test will be done taking into account GHG emission reduction threshold set at 10%, 40%, 70%, that is to say shares comparable to those under the Directive (35% by 5 December 2010, 50% in 2017, 60% in 2018). Moreover,

¹³⁶ Directive 2009/28/EC, Art. 18(4)

Principle 10 stipulates that air pollution from biofuel operations shall be minimized along the supply chain.

Therefore, the sustainability criteria do not discriminate in an unjustifiable manner. Moreover, the Directive being flexible, it can also be concluded that it does not discriminate arbitrarily.

In conclusion, the sustainability criteria are largely compliant with the *chapeau* of Art. XX GATT. This leads to the overall conclusion that although the sustainability criteria may violate in certain respects Artt. I, III and XI GATT, they will likely be seen as justifiable under Art. XX (b) and (g) GATT and compliant with the *chapeau* of Art. XX. A minor exception is the discriminatory provision of default values, e.g. for US corn ethanol or for other scenarios for soybean biodiesel.

Box 4. Sustainability criteria for other products

Assuming that the EU could successfully defend the sustainability criteria in the WTO, an interesting question immediately arises: Could one also defend similar policies that would require other products such as timber (whether imported or locally produced) to fulfil certain sustainability criteria, e.g. similar land-use criteria? We believe that there is a crucial difference between the particular case of biofuel and other products, the reason being that the demand for biofuel is artificially created by the EU's mandatory target for the main reason to reduce GHG emissions. If the EU could not ensure that the use of biofuel would actually lead to a reduction of emissions, then it may not implement such a policy in the first place because it would be illogical. This close link between the sustainability criteria and the actual demand for biofuel does not exist for other products, such as timber or meat.

Let us assume for a moment that there were clear WTO commitments and rulings by the AB banning the use of any PPM measure under any circumstances, with no possibility to defend such measures under Art. XX. Would the EU then put a policy in place that creates an artificial demand for biofuel that results in EU consumers importing Malaysian palm oil biodiesel at a cost above fossil fuel from land that has recently been cleared from rainforest? Most probably not. This basically means that one cannot separate the marketability of biofuel in the EU from the sustainability criteria abroad. Non-sustainable biofuel cannot be

marketable because the marketability of any biofuel is artificially created by policymakers for the purpose of making fuel use more sustainable.

Therefore, the demand for biofuel is linked to its sustainability in the first place. This could change if biofuel becomes commercially viable, but in that case EU consumers would also not be obliged to pay a premium on biofuel. Today biofuel is significantly more expensive than fossil fuel¹³⁷, so biofuel is only used if it is either subsidized or the use of it is made mandatory (mainly through blending requirements). It is plainly not logical to let consumers or taxpayers pay for expensive biofuel with the purpose of reducing GHG emissions without allowing to ensure that the emissions are actually reduced. It is less straightforward to make the same argument for other sustainability criteria, in particular biodiversity. But if policymakers want to ensure that the GHG reduction through the use of biofuel is not offset by harmful effects on the environment, then it is plausible to implement such environmental criteria that are not necessarily linked to climate change, but are seen as similarly important goals.

This is not the case for other products: There is a market for non-sustainably harvested timber or for beef from cattle grassing on land previously covered by rainforest or for shrimps caught with nets that are harming sea turtles. Banning such imports would interrupt existing or potential trade flows. That does not necessarily mean that such measures would necessarily be inconsistent with WTO commitments, but it could be more difficult to prove that measures are not discriminatory or set arbitrarily.

¹³⁷ This is not necessarily true for all biofuels and also depends heavily on the oil price. Brazilian cane-based ethanol is probably competitive with gasoline from fossil fuel when oil prices are high, but the heavy use of ethanol in Brazil is also related to different taxation and other incentives.

Conclusion

Overall, the Directive is mostly in line with obligations under the GATT Agreement, but certain elements will likely be considered a violation of GATT Art. III:4, in particular the land-use criteria and the setting of default values. The same conclusion can be reached regarding a violation of GATT Art. I:1. Non-sustainable biofuels are also subject to a restriction on importation within the European Union, which is a violation of GATT Art. XI.

However, most of these measures can be justified under the exception clause provided by GATT Art. XX. We find that the emission saving criteria and land-use criteria are consistent with both GATT Art. XX (b) and (g) and are also in line with the *chapeau* of GATT Art. XX. We only see a minor potential violation of GATT Art. III:4 that may not be justified under GATT Art. XX, namely the selective provision of default values for only some biofuels, but this is likely to change as soon as the EU will provide additional default values and is also likely not a significant constraint for potential exporters.

This conclusion is of course not a definite one, and it might well be the case that some WTO Members will go to the DSB, for example Malaysia, Indonesia or Brazil.

There also remain many concerns related to the overall efficiency of the biofuel use. There are indications that the policy is very expensive in comparison to the actual GHG emission reduction. Negative environmental and social effects cannot be ruled out, despite the sustainability criteria. The EU may include ILUC criteria to address such concerns, which could raise additional legal questions depending on how such criteria will be implemented. Therefore, although the Renewable Energy Directive appears WTO compliant, there are doubts whether the EU's biofuel policy works effectively and efficiently towards its goals.

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