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The EU Directive on Renewable Sources and WTO: Towards a solution of the PPMs and extraterritoriality issues?

The EU Directive on Renewable Sources and WTO: Towards a solution of the PPMs and extraterritoriality issues?

Elisa Ruozzi[*]

The article analyses the relationship and the potential conflicts between EU Directive 28/2011 – imposing, among other things, sustainability requirements on biofuels - and the WTO system. If on one side the fight against climate change inspiring the Directive is coherent with the objective of sustainable development embodied in the WTO Agreement, on the other the Directive can be considered as violating WTO rules, as it constitutes a de facto ban on certain products. In this framework, possible options in order to justify the potentially restrictive impact of the measure are explored, on the basis of GATT/WTO jurisprudence relating to extraterritorial measures and process and productions methods.

Introduction: the "rise and fall" of biofuels.

According to EU Directive 28/2009, biofuels are "liquid or gaseous fuel for transport produced from biomass"; this latter is in turn defined as "the biodegradable fraction of products, waste and residues from biological origin from agriculture [...], forestry and related industries including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste"[1]. The most common types are ethanol (produced from sugar cane, sugar beets and cereal crops) and biodiesel (produced from rapeseed or soybean oils, from waste vegetable oil, animal fats or algae). A further distinction concerns first and second generation biofuels, the latter providing stronger GHG reductions than the former.

The interest for biofuels is not a new phenomenon; starting from the seventies, some of the most important world economic powers began resorting to these products as an alternative to fossil fuels; still, motivations behind this choice were often different[2].

For example, Brazil started using biofuels in the Seventies, as a response to the first oil crisis, because of the obvious comparative advantages shown by these products[3]. Therefore, the choice was mainly driven by domestic economic needs, as demonstrated by the fact that when, in the Eighties, sugar prices rose and oil prices fell, Brazil limited the production of ethanol[4]. However, this State also pursues export opportunities, not only for biofuels but also for the related technology developed by its firms[5].

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[1] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC. However, as specified by the Commission in a subsequent Communication, the listings of biofuels mentioned in the Directive are not exhaustive; therefore, biofuels that are not listed can also count towards the Directive's targets (*Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels*, 2010/C 160/02, 19 June 2010, at 2.3).

[2] Wybe Th. Douma, *Legal aspects of the European Union's Biofuels Policy: Protection or Protectionism?*, *in* 53 GERMAN YEARBOOK OF INTERNATIONAL LAW 372-373 (2010).

[3] Tatsuji Koizumi, *The Brazilian Ethanol Programme: impacts on world ethanol and sugar markets*, *in* 114-115 BIOMASS AND AGRICULTURE (OCSE ed., 2003).

The US aimed at reducing their dependence on energy imports and achieving greater energy security, even though this did not exclude environmental motivations, as confirmed by the ban on MTBE (a fuel additive) adopted by some States[6].

Environmental motivations were stronger in the European context, where the issue was linked to the fight against climate change. Starting from the end of the old Millennium, EU institutions started promoting the use of biofuels[7].

According to the European Commission, their use is aimed at reducing greenhouse gases emissions, de-carbonizing fuels for transport, diversifying energy sources and developing substitutes for fossil fuels. Income diversification, technological development and job creation are also envisaged[8].

Reduction of GHG emissions, of oil use and improvement of air quality are not the only benefits associated with biofuels: vehicle performance benefits are also mentioned. This is because biofuels have a very high octane number and can be used in order to increase the octane of gasoline. Moreover, production of biofuels from some crops constitute a new option for farmers and therefore new possibilities on the market, drawing less rentable crops away[9].

If, at first, the use of biofuels appeared as a solution to several problems faced by States, with the passing of time certain risks linked to their production began to be identified by scientists and academics. The first category of risks is linked to food : raw materials used for biofuel production come from agriculture and, as a consequence, their farming reduces the quantity of land available for other crops and can potentially determine a rise in prices of food products[10].

Beside this, assigning land to the cultivation of plants used for the production of biofuels has two main consequences: abandoning crops deemed to be less profitable - therefore standardizing farm production - and depleting land characterized by a high biodiversity. This last aspect is strengthened by the fact that, generally speaking, this kind of production implies energy intensive methods, which can imply the use of fossil fuels and whose impact on the environment is generally harmful.

Also, a social side has to be taken into account: when forests are used for agricultural purposes, indigenous populations are obliged to leave and, in general terms, are deprived of some natural resources essential to their survival and their cultural identity[11].

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[4] Doaa Abdel Motaal, *The Biofuels Landscape: Is There a Role for the WTO?*, 42 JOURNAL OF WORLD TRADE 62 (2008).

[5] Sophia Murphy, *The multilateral trade and investment context for biofuels: Issues and challenges*, Institute for Agriculture and Trade Policy, December 2007, available at http://pubs.iied.org/pdfs/15513IIED.pdf (11 January 2012) p.1

[6] Sophia Murphy, *supra* note *X* at 1; Doaa Abdel Motaal, *The Biofuels Landscape: Is There a Role for the WTO?*, *supra* note *X* at 63.

[7] *Communication from the Commission - Energy for the future: renewable sources of energy - Green paper for a Community Strategy*, COM(96)576 e COM(97)599, 20 November 1996.

[8] *Communication from the Commission - an EU Strategy for Biofuels*, COM(2006)34 def., 8 February 2006, p.3; *Report from the Commission on indirect land-use change related to biofuels and bioliquids*, COM(2010)811 def., 22 December 2010, p.3.

[9] Lew Fulton, *International Energy Agency (IEA) biofuels study – Interim report: results and key messages so far*, BIOMASS AND AGRICULTURE 106-107 (OCSE ed., 2003).

[10] Wybe Th. Douma, *supra* note *X* at 376-377, mentioning a « food v. fuel debate » ; Benjamin Hogommat, *Les enjeux de la prise en compte des biocarburants au regard des orientations de la politique agricole commune*, 3 REVUE EUROPÉENNE DE DROIT DE L'ENVIRONNEMENT 429-430 (2010). However, the link between availability of agricultural resources and hunger is not so straightforward : as it has been pointed out, there is strong agreement among experts that hunger is more a problem of access more than supply, with the consequence that attention should be focused on rural development more than on global food supply (Sophia Murphy, *The multilateral trade and investment context for biofuels: Issues and challenges*, cit., at 10). Moreover, the development of second generation biofuels should mitigate this problem, as second generation biofuel technologies extend the amount of biofuel that can be produced by using biomass consisting of the residual non-food parts of current crops that are left behind once the food crop has been extracted, as well as other crops that are not used for food purposes (WTO/UNEP Report, *Trade and climate change*, 2009, p.46, note n.23, available at http://www.unep.org/pdf/UNEP_WTO_Trade_and_CC_June_09.pdf, 11 January 2012).

[11] Benjamin Hogommat, *supra* note X at 430.

A further element reducing the initial momentum for the use of biofuel, is the concern of competitiveness: firms started to fear the "carbon leakage" occurring in other countries, i.e. the relocation of industries in States where environmental standards are lower[12]. This concern clearly emerges in the *Energy Roadmap 2050*, where the Commission stressed the need that the energy policy is not pursued "in isolation" and underlined the concerns relating to carbon leakage and adverse effects on competitiveness. The existence of a strong industrial base implies that no the transition towards a de-carbonised economy happens without distortions and losses, as energy remains an essential cost for industry. The documents spell clearly that safeguards will be kept in place depending on the behaviour of other States[13].

Finally, as far as climate change is concerned, the advantages in terms of emission reductions were originally only analysed in terms of emissions generated during the use of biofuels, without taking into account those resulting from the production method[14]. On the contrary, it is nowadays generally recognized that the real impact of GHG emissions can only be fully assessed through a life-cycle analysis (LCA) and integrated environmental assessment (IEA).

LCA can be defined as an "approach estimating pollution potential, energy and resource usage associated with a product […] throughout its life cycle"[15]. IEA has been described as a process of "identification, analysis and appraisal of all the relevant […] processes and interactions which determine both the current and future state of environmental quality, and resources"[16].

That is why legislative measures adopted by States in order to reduce GHG emissions are increasingly based on these techniques; guidelines in order to develop this kind of assessment have been developed by the International Standard Organization[17].

Closely linked to this aspect is the issue of indirect land-use change. By this term the European Commission means the process by which biofuels feedstock displace other crops, which then "migrate" into other non-agricultural land. This conversion can have negative consequences in terms of GHG emissions, for example if the converted land was a forest or a wetland[18], and in the framework of this debate some even argued that biofuels are unable to reduce GHG emissions at all[19].

Assessing the net carbon effect of biofuels is extremely difficult; still, in order to base its work on the best available scientific evidence, the Commission launched analytical and

[12] Francesco Sindico, *The EU and Carbon Leakage: How to Reconcile Border Adjustments with the WTO?*, 17 *European Energy and Environmental Law Review* 329 (2008).

[13] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Energy Roadmap 2050, p.9. article 28 of the EU directive reforming the Emission Trading Scheme states that, in the case where the EU signs an international agreement aimed at further global GHG reductions, the Commission will submit a report assessing, among other things, the EU industries' competitiveness in the context of "carbon leakage" risks (*Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community*, in OJ L 140, 5.6.2009, p. 63-87). Recital n.24 of the Directive makes the EU attitude even clearer: the lack of participation, on the part of developed countries, to the new international agreement, could generate "carbon leakage" and "put certain energy-intensive sectors […] subject to international competition at an economic disadvantage". As a consequence, the EU should allocate a 100% of CO2 emission allowances (which, by 2027, should be distributed by auction) free of charge, in order to tackle the increased competition faced by EU industries.

[14] *Idem*.

[15] Jane Feehan, Jan-Erik Petersen, *A framework for evaluating the environmental impact of biofuel use*, in 154 *Biomass and Agriculture* (OCSE ed., 2003).

[16] *Idem*.

[17] Charles Benoit, *Picking Tariff Winners: Non-product related PPMs and DSB Interpretations of "Unconditionally" within article I:1*, 42 Georgetown Journal of International Law 590 (2011).

[18] *Report from the Commission on indirect land-use change related to biofuels and bioliquids*, cit., at 4.

[19] Wybe Th. Douma, *supra note X* at 375-376.

consultation exercises and a review of existing literature on the subject[20]. The consultation – carried out among member States, NGOs, industry, farmers' associations and industrial stakeholder from the non-biofuel sector, showed that no consensus the preferred policy approach, notably on the possibility of dealing with indirect land-use change by extending sustainability criteria to all crops[21].

Preliminary conclusions include the existence of deficiencies and uncertainties associated with the analytical framework necessary in order to carry out any policy action. As a consequence, the Commission will keep working in order to make sure that its action will be based on the best available scientific evidence. Considering the impact that indirect land-use change can have on the contribution of biofuels to GHG savings, the Commission deems appropriate to act on a precautionary basis[22].

These elements form a complex picture where energy, environment, agriculture and rural development are involved; this complexity is reflected in the absence of a single forum where discussions about biofuels could be hosted and it is strengthened by the presence of another factor: trade. Big developing countries producers of biofuels are not those countries to which preferential access is generally granted and in some cases industrialized countries struggled in order to open their borders to biofuels of foreign origin[23]. The impasse in the Doha Round of negotiations (which should include green products and services) adds to the existing difficulties; Brazil proposed the inclusion of biofuels as an environmental good in the framework of non-agricultural market access, whereas related technology would fall under the services category. Opponents argue that production processes involved are often polluting, making the inclusion of biofuels and related technology unsuitable to the environmental chapter of negotiations[24].

2. The PPMs and extraterritoriality issues in International Trade Law.

2.1 Introduction: the relevant provisions

The term "PPMs" simply means "process and productions methods"; still, when used in the trade context, it refers to the impact of these elements in the liberalization of trade.

Before considering GATT/WTO case-law on this topic, it is useful to recall the distinction made by S. Charnovitz in a well-known article about PPMs. The author develops a taxonomy for these kinds of requirements, listing the following kinds of PPMs: how-produced standards; government-policy PPMs and producer characteristics[25]. The first ones concern methods used for manufacturing goods; standards on biofuels fall under this category[26].

Government-policy requirements set conditions, imposed by a Government, about the production process. Charnovitz mentions as an example the Kimberly Process

[20] *Report from the Commission on indirect land-use change related to biofuels and bioliquids*, cit., at 7.
[21] *Ibidem*, at 14. See also Wybe Th. Douma, *supra* note *X* at 386-387.

[22] *Report from the Commission on indirect land-use change related to biofuels and bioliquids*, cit., at 15.
[23] Sophia Murphy, *supra* note *X* at 13.
[24] *Ibidem*, at 16.
[25] Steve Charnovitz, *The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality*, 27 YALE JOURNAL OF INTERNATIONAL LAW 67 (2002).
[26] *Ibidem*, at 69.

Certification Scheme, aimed at preventing "conflict diamonds" from entering the diamond global market[27].

Finally, producer-characteristic standards establish which conditions must be satisfied by economic operators (producers or importers). Even though facially origin-neutral, they usually have a protectionist purpose and they discriminate against foreign producers.

Broadly speaking, there some core arguments against the use of PPMs. In the first place, PPMs vary greatly from one country to another and basically depend upon the comparative advantages of each member of the multilateral trading system. International trade being based on different countries' endowments and characteristics, imposing this mind of requirement would mean undermining the very foundation of the system itself[28]. The second reason lies in national sovereignty: notwithstanding the globalization process, impinging upon States' regulatory autonomy relating to activities which take place in their territory is still a delicate operation. Moreover, if PPMs were accepted, larger and richer countries would be able to impose their own standards and regulations to weaker countries. Finally, it is highly questionable if and to what extent a single PPM could fit different States with different environmental contexts[29].

Technical requirements under the form of PPMs can therefore constitute a non-tariff barrier, as they basically constitute a *de facto* ban on certain products and they can therefore clash with the principles of the GATT/WTO system. This latter is aimed at the liberalisation of trade and, as such, prevents States from imposing quantitative restrictions. This purpose is achieved through an outright prohibition contained in article XI of GATT 1947 ("General Elimination of Quantitative Restrictions").

Still, the most sensitive issues in the framework of the non-discrimination provisions which are at the core of the multilateral trading system. This latter being based on the idea that similar goods must receive a similar treatment, the issue is whether a way a product is made and processed can affect this kind of analysis.Another fundamental obligation in order to assess the compatibility of technical standards with the WTO system is constituted by GATT article III, the national treatment provision. According to the first paragraph, member States cannot impose requirements of any kind so as to afford protection to national products. Paragraphs 2 and 4 specify this general idea, the former applying it to "internal taxes or other internal charges", and the latter to "laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use", provided that national and imported goods are similar or "like"[30].

The same goes (even though this provision is invoked far less frequently) for the MFN (most favourite nation) principle, according to which WTO members are supposed to offer to other members' products a treatment which is not less favorable than that offered to another State[31].

[27] *Ibidem*, at 68. On this topic see also, by the same author, *International Standards and the WTO*, background paper for the Global Forum on Trade, Environment and Development.
[28] Candice Stevens, *Trade and environment*, in Wilfried Lang, 239 Sustainable Development and International Law, Martinus Nijhoff, (XXXX).
[29] *Ibidem*, at 239-240.
[30] On article III GATT see Michael Trebilcock, Robert Howse, *The Regulation of international trade*, 86 ss.(Routledge, 2005); Peter Van Den Bossche, *The Law and Policy of the World Trade Organization*, 344 ss (Cambridge University Press, 2008).
[31] Article I of the General Agreement on Tariffs and Trade.

2.2 From Tuna to Asbestos: the emerging of risk as a factor determining likeness

But how is likeness to be framed? According to WTO jurisprudence, likeness has to be assessed on the basis of (i) the properties, nature and quality of products; (ii) the end-uses of products; (iii) consumers' tastes and habits – more comprehensively termed consumers' perceptions and behaviour – in respect of the products; and (iv) the tariff classification of the products[32]. On the basis of this definition, the only elements capable of determining product likeness are products characteristics directly linked to the product itself. But could likeness be assessed also on the basis of production methods[33]? The problem emerged in GATT jurisprudence with the well-known *Tuna-Dolphin* dispute, deriving from a trade ban imposed by the US on all the tuna fished with the use of "purse-seine" nets. The ban of this kind of technology was a consequence of the enforcement of an internal US law (the Marine Mammal Protection Act), aimed at reducing the rate of incidental catch of dolphins to levels approaching zero[34]. The use of "purse-seine" nets implied, as a matter of fact, incidental catches of dolphins, whose presence is often associated with that of tuna[35]. In examining the compatibility of the US measure with GATT legal order, the panel took into consideration the hypothesis of justifying the measure under article XX of GATT 1947, invoked by the United States.

This provision (named "general exceptions") provides a justification for measures restricting trade if these measures are adopted in order to protect some public interests, listed in the different paragraphs. Once admitted that the measure falls under one of the listed objectives, it is also necessary to show that the measure does not form an arbitrary or unilateral discrimination or a disguised restriction to trade[36].

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[32] *Border Tax Adjustments, Report of the Working Party adopted on 2 December 1970*, (L/3464); *Japan – Alcoholic Beverages*, DS8, DS10, DS11, Appellate Body Report, 4 October 1996, p.22; *European Communities - Measures Affecting Asbestos and Asbestos-Containing Products*, DS135, Appellate Body Report,12 March 2001, par.101; See, also, *United States – Standards for Reformulated and Conventional Gasoline*, DS2, Report of the Panel, 29 January 1996, par.6.8. The *Asbestos* report underlines that the fourth criterion, tariff classification, was not mentioned by the Working Party on Border Tax Adjustments, but was included by subsequent panels (see, for instance, *EEC - Measures on animal feed proteins*, Report of the Panel,14 March 1978, L/4599 - 25S/49, par.4.2, and *Japan - Customs Duties, Taxes and Labelling Practices on Imported Wines and Alcoholic Beverages*, Report of the Panel, 10 November 1987, L/6216 - 34S/83, par.5.6. These criteria have been confirmed in two recent disputes focused on health and environmental concerns but based on the violation of the Agreement on Technical Barriers to Trade. In both cases the panel stated that, due to the similarities between article III GATT (national treatment obligation) and article 2 paragraph 1 of the TBT Agreement, the interpretation of the term "like products" given by judicial organs in the context of the first provision can provide guidance when analyzing a violation of the TBT Agreement (*United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, DS381, Report of the Panel, 15 September 2011, par.7.223-7.224; *United States - Measures Affecting the Production and Sale of Clove Cigarettes*, DS406, Report of the Panel, 2 September 2011, par.7.117).

[33] In the trade law debate, PPMs have always been divided between product-related and non-product related; the former are used in order to assure the quality of the product and to safeguard the consumer (ex. food safety) and the latter are instead aimed at a purpose which is unperceived by the consumer (ex. a ban on driftnets). Notwithstanding the inherent limits and flaws of this categorization, in the article mentioned before the author decides to adopt it; therefore the terms "PPMs" is used in the sense of non-product related process and production methods (Steve Charnovitz, *supra* note 19, at 65-66).

[34] *United States - Restrictions on Imports of Tuna*, Report of the Panel, DS21/R, 3 September 1991, par.3.2.

[35] As mentioned before, the so-called Tuna-Dolphin dispute has recently re-emerged in terms of a violation of the Technical Barriers to Trade Agreement (*United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, DS381, cit.)..

[36] According to the text 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: […] (b) necessary to protect human, animal or plant life or health". On article XX see David Luff, *Le droit de l'Organisation Mondiale du Commerce*, 146 ss (Bruylant, 2004).
In the *Gasoline* report, the Appellate Body set forth clearly the way article XX has to be applied by judicial organs: "In 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" (*United States - Standards for Reformulated and Conventional Gasoline*, DS2, Report of the Appellate Body, 29 April 1996, p.22).

The US invoked both paragraph b), concerning measures adopted in order to protect human, plant and animal life, and paragraph g), relating to measures aimed at the conservation of exhaustible natural resources.

According to the panel, the "basic question" posed by the dispute, i.e. the GATT-legality of measures aimed at protecting goods (such as animal life) situated outside the importing State's jurisdiction, is not clearly answered by the text of article XX[37]. In order to answer this question, the panel refers to GATT drafting history, the purpose of the drafters but also (and this criterion will be particularly relevant) to the consequences that the interpretation proposed by the US would have on the GATT system.

Reading the records of the preparatory works of the ITO charter, the panel stresses the presence of a proviso (dropped before the adoption of the definitive version of the General Agreement) requiring measures adopted on the basis of article XX to be linked to corresponding measures in the importing country. According to the panel, this provision witnesses the intention of the drafters to limit certain kinds of measures to the jurisdiction of the country adopting it[38].

Moreover, the requirements of necessity and non-discrimination contained in the article are referred to the measure at issue and not to the level of protection chosen by each Contracting State. If the interpretation proposed by the US was adopted, "each contracting party could unilaterally determine the life or health protection policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement. The General Agreement would then no longer constitute a multilateral framework for trade among all contracting parties but would provide legal security only in respect of trade between a limited number of contracting parties with identical internal regulations"[39].

According to the panel, the extraterritorial measure adopted by the US does not meet the necessity test imposed by article XX, as the importing party has not exhausted all the options reasonably available in order to pursue its aim.

The approach taken by the panel in the *Tuna-Dolphin* dispute has never been explicitly rejected[40] even though the analysis of the jurisprudence shows a progressive shift towards acceptance of extraterritorial measures.

This tendency emerges in the *Shrimp-Turtle* dispute, concerning a measure similar to that adopted in the *Tuna-Dolphin* case[41]. The US invoked article XX paragraph g)[42] in order to justify the measure adopted and the Appellate Body, while stating not to "pass upon the question of whether there is an implied jurisdictional limitation" in this provision, still makes some relevant statements about the case at issue.

Considering the migratory nature of sea turtles, the Appellate Body notes that, in the specific circumstances, there is a "sufficient nexus" between sea turtle populations and the United States for the purposes of article XX paragraph g). Even though by an *obiter*

[37] *United States - Restrictions on Imports of Tuna*, cit., par.5.25.
[38] *Ibidem*, par.5.26.
[39] *Ibidem*, par.5.27.
[40] In a second *Tuna-Dolphin* recourse, introduced by intermediary nations hit by the embargo, the panel actually stated that the text of article XX does not contain any explicit prohibition of extraterritorial measures. Still, apart from the fact that the report was never adopted, it was not until the issue of the *Asbestos* report that the idea of PPMs has been taken into consideration (*United States – Restrictions on Imports of Tuna*, DS29/R, Report of the Panel, 16 June 1994, par.5.15.
[41] The US applied a *de facto* trade ban over shrimps coming from countries whose vessels did not use a special device aimed at preventing the incidental catch of sea turtles (TED: *turtle excluding device*); *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, DS58, Report of the Appellate Body, 12 October 1998, par.2.
[42] Paragraph g) covers measures "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption".

dictum, the supreme WTO judicial organ thus implicitly admits the legality of an extraterritorial measure, based on the production method of the goods at issue[43]. The orientation of the Appellate Body seems to be confirmed by the statement that requiring compliance from exporting countries with certain policies imposed by the importer cannot render a measure *a priori* incapable of justification through article XX[44].

Moreover, in the last *Tuna* dispute (concerning the requirements imposed by the United States for the concession of a dolphin-safe label) the panel affirmed that the US labelling provisions do not require the importing *Member*[45] to comply with a requirement but it is the products themselves that need to satisfy certain conditions[46]. This idea could easily be used in order to argue the legitimacy of extraterritorial measures: if the technical requirement is addressed to the product and not to the exporting State – which is the most frequent hypothesis, as trade measures are usually origin-neutral and therefore unrelated to the exporter State - no violation of national regulatory power arises. The importing State is "just" exercising its own sovereignty in deciding which kind of products it wants to admit on its territory.

This statement, matched with the idea that requiring compliance with certain policies imposed by the importing country does not render a measure a priori incapable to be justified by article XX[47], weaknesses the position of those who sustain that imposing a requirement concerning a PPM is WTO-illegal.

A fundamental step towards the recognition of the legality of trade obstacles based on PPMs comes from the *Asbestos* case, deriving from the implementation of a French law banning manufacture, import, domestic marketing, exportation and sale of all varieties of asbestos fibres or any product containing asbestos them[48]. The French law set forth an exception for products containing chrysotile, a fibre similar to asbestos, when, to perform an equivalent function, no substitute for that fibre was available.

Canada – exporter of asbestos products to France - challenged the ban, sustaining that it constituted a *de jure* discrimination between substitute fibres of French origin and, on the other hand, chrysotile fibre and products containing it from Canada[49].

According to the panel report, the measure was in principle incompatible with article III paragraph 4 of GATT 1947, but it was justifiable under article XX paragraph b) as a measure taken to protect human life. More precisely, the panel stated the similarity between products containing chrysotile and substitute products (PVA, cellulose and glass fibres), so rejecting the idea, supported by the EC, that these products were unlike because of the different human health risks they pose[50].

The Appellate Body reversed the panel finding, assuming that health risks associated with a product may be relevant to the inquiry into the physical properties of a product when making a determination of likeness. When assessing physical properties, judicial organs have to take into account the fact that a product contains a carcinogenic fibre.

[43] *Ibidem*, par.133.
[44] *Ibidem*, par.121.
[45] Emphasis in the text.
[46] *United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, DS381, cit., par.7.372.
[47] *Ibidem*, par.7.371; see *supra* note 35.
[48] *European Communities - Measures Affecting Asbestos and Products Containing Asbestos*, Report of the Appellate Body, DS135, 12 March 2001, par.2.
[49] *European Communities - Measures Affecting Asbestos and Products Containing Asbestos*, Report of the Panel, DS135, 18 September 2000, par.8.151.
[50] *Ibidem*, par.8.130-8.132.

The *Asbestos* report therefore marks a sharp evolution in the WTO jurisprudence regarding likeness, introducing the idea that the effect of a product on human health might make two products different.

Could this pave the way for consideration of PPMs in the assessment of WTO legality? On one hand, the risk criterion covers "hidden" product-characteristics, introducing elements which are identifiable only in the medium-long run and which are on the border between the way a product is and the way a product is made. On the other hand, it must be pointed out that, according to the Appellate Body view, health risks fall into the category of physical properties, but the concept of PPMs has not been recalled[51]. Here, again, the distinction between product-related and non-product related PPMs shows its limits[52].

2.3 The recent health and environment disputes : continuity or *révirement*?

The importance of risk in the assessment of likeness has further been highlighted in the *Clove cigarettes* report. The panel, called to assess the legitimacy of a US trade ban over clove cigarettes in the light of article 2 paragraph 1 of the TBT Agreement, rejects the "competition-based approach" adopted by the Appellate Body in the *Asbestos* case, stating that the aim pursued by the measure (the protection of public health) must permeate and inform the likeness analysis[53]. However, this idea have recently been challenged by the Appellate Body in the Philippines Spirits dispute, which made of the competitiveness relationship the base if its likeness analysis[54]. On this point, the jurisprudence is clearly split; a clarification could come from the appeal report of the Clove cigarette dispute.

Not only : the same panel seems to put into discussion the very concept of likeness meant as a term conveying an univocal meaning. This idea is affirmed by a statement from the US (defined by the panel "a very useful hypothetical") according to which "certain products may be considered like in certain contexts but not in others", depending on the kind of measure at issue, as the objective sheds light on the whole likeness analysis[55].

If on one side, the concept of likeness has progressively been nuanced in order to take into account the risk for human life and health, on the other the recent report about distilled spirits makes clear that the relationship between PPMs and likeness is not a circular one, but develops unilaterally from the latter to the former. In other terms, PPMs do not have an autonomous status, but they will be taken into consideration just when it results that the products at issue are not similar. In the words of the panel, "in spite of differences in the raw materials used to make the products, if these differences do not affect the final products, these products can still be found to be "like" […]Article III:2, first sentence, refers to "like products", *not to their raw material base*[56]. If differences in raw materials leave fundamentally unchanged the competitive relationship among the final products, the existence of these differences would not necessarily negate a finding of "likeness"[57].

[51] Francesco Sindico, *supra* note 13, at 337.
[52] See *supra* note 24.
[53] *United States - Measures Affecting the Production and Sale of Clove Cigarettes*, cit., par.7.119. See also par.7.154, where the panel explicitly underlines the relevance of health risk-related features in likeness examination.
[54] *Philippines - Taxes on Distilled Spirits*, WT/DS396/AB/R and WT/DS403/AB/R, 21 December 2011, par.119-121.
[55] *Ibidem*, par.7.245.
[56] Emphasis added.
[57] *Philippines - Taxes on Distilled Spirits*, cit., par.125.

The possible role of PPMs has also been taken into consideration in the assessment of likeness in the framework of GATT article I (most-favourite nation clause). According to this provision, "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*[58] to the like product originating in or destined for the territories of all other contracting parties". The interpretation of the term "unconditionally" as progressively developed by WTO judicial organs seems to leave some space for the analysis of PPMs.

In a first phase of WTO jurisprudence, the term "unconditionally" has been interpreted so as to prohibit any criterion unrelated to the product itself, therefore excluding PPMs[59]. However, this strict interpretation has been challenged by the *Canada-Autos* report, where the panel held that the requirement contained in article I has to be assessed with reference to origin-based criteria[60]..

According to this interpretation, "truly origin-neutral requirements" would be admitted[61]; the ultimate aim of GATT article I being to guarantee MFN treatment, there is no reason to ban any condition necessary to realize the preferential treatment at issue[62]. The only kind of condition prohibited by WTO law are those linked to the origin of goods.

In the *EC-Tariff Preferences* report, however, the Panel went back to the *Indonesia-Autos* interpretation, finding support in the Oxford Dictionary definition of "unconditional", according to which the term implies the absence of any condition[63]. In a following report, the panel returned once again to the flexible interpretation contained in the *Canada-Autos* Report, with the consequence that the jurisprudence is now split between a literal, restrictive interpretation of the term "unconditional" and a more flexible one, allowing the imposition of origin-neutral requirements[64].

Finally, as far as Uruguay Round Agreements are concerned, the Agreement on Technical Barriers to Trade states that technical regulations must not be more trade-restrictive than necessary in order to pursue legitimate objectives, taking into account the risk of non-fulfilment. The article goes on to establish that, in assessing such risk, a relevant element is constituted by "related processing technology". Therefore the TBT agreement seems to explicitly take into consideration the issue of process and production methods. The same can be said of the Agreement on Sanitary and Phytosanitary measures, whose article 5 establishes that, in the determination of risks, members shall take into account, *inter alia*, relevant processes and production methods.

[58] Emphasis added.
[59] Charles Benoit, *supra* note 18, at 598 quoting *Indonesia - Certain Measures Affecting the Automobile Industry*, DS54, Report of the Panel, 2 July 1998, par.14.143-144.
[60] *Ibidem*, at 600; *Canada- Certain Measures Affecting the Automotive Industry*, DS139, Report of the Panel, 11 February 2000, par.10.28.
[61] *Ibidem*, at 600, quoting Steve Charnovitz, *The Law of Environmental "PPMs" in the WTO: Debunking the Myth of Illegality*, *supra* note 19 at 85.
[62] *Idem*.
[63] *EC - Conditions for the Granting of Tariff Preferences to Developing Countries*, DS246, Report of the Panel, 1 December 2003, par.7.59.
[64] Charles Benoit, *supra* note 18 at 603.

3. Sustainability requirements imposed by Article 17 of Directive 28/2009.

Directive 2009/28 adopts as mandatory targets to achieve by 2020 a 20% overall share of renewable energy and a 10% share for renewable energy in the transport sector; these being EU targets, national targets are set forth in Annex 1 of the Directive. Each Member State shall ensure that the share of energy from renewable sources, calculated in accordance with the Directive, is at least its national overall target for the share of energy from renewable sources in that year[65]. In order to reach this aim, Member States can, individually or jointly, adopt support schemes[66]. These targets have to be matched with those set by Directive 2009/30/EC ("the Fuel Quality Directive"), which pursues a 6% reduction in the greenhouse gas intensity of fuels used in transport.

Still, not any kind of biofuel can be taken into account for the purpose of the above mentioned targets, nor can its production receive financial support: as a matter of fact, only sustainable biofuels are concerned by these provisions. Recital n.65 states that: "Biofuel production should be sustainable. Biofuels used for compliance with the targets laid down in this Directive, and those that benefit from national support schemes, should therefore be required to fulfill sustainability criteria". The following recital goes into details, stating one of the main concerns of the Directive: the conservation of biological diversity, which should not be jeopardized by an increased use of biofuels..

As a consequence, paragraph 1 of article 17 states that, in order to be taken into account for the purpose of the target mentioned above (20% biofuels must respect sustainability criteria set forth in the Directive, *irrespective of whether the raw materials were cultivated inside or outside the territory of the Community*[67]. This additional condition is of fundamental importance, as it is one of the main elements determining a potential clash with trade rules. In this regard, it is important to underline that, according to article 17 paragraph 6, agricultural raw materials cultivated in the Community and used for the production of biofuels and bioliquids have to comply with the requirements set out by Regulation 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy. As a consequence, these materials are not disciplined by Directive 28/2009.

Given this premise, how will the legislator actually implement sustainability criteria? According to article 17 paragraph 1, the greenhouse gas emission saving from the use[68] of biofuels shall be at least 35 %. From 1 January 2017, the threshold rises to (at least) 50 % and from 1 January 2018 at least 60 % for biofuels produced in installations in which production started on or after 1 January 2017. Emission saving will be calculated in accordance with Annex V to the Directive, and compared with emissions from fossil fuels, on the basis of the following factors: cultivation of raw materials, processing, transport and distribution, fuel in use. As far as some products are concerned, default values are provided for, therefore constituting a presumption of conformity or of non conformity with emissions savings targets.

Member States have to require economic operators to show that biofuels comply with sustainability criteria and, in order to do this, economic operators have three methods: they

[65] Article 3.1.
[66] Article 3.1 lett.a.
[67] Emphasis added.
[68] *Idem*.

can set up a national system, make use of a "voluntary scheme" that the Commission has recognized for the purpose, or comply with a bilateral or multilateral agreement concluded by the Union and which the Commission has recognized[69]. On 19 July 2011, the Commission recognized seven voluntary schemes out of 25 application received[70]; for schemes to be recognized, they have to include rules about audit, among which the competence and independence of the auditors. Schemes are valid for a period of five years and an extension will require a new decision[71]. Further criteria are being elaborated by the European Committee for Standardization (CEN)[72] which, under the request of the European Commission, finalized a first draft text on sustainability criteria in December 2010.

Apparently, the first kind of requirement is aimed at regulating consumption externalities, i.e. to prevent environmental harm when the product is consumed[73], and would not therefore pose any problem. However, the expression "from the use" could also indicate, even if implicitly, the use of an LCA/IEA approach, as it apparently comprises the whole process of resorting to biofuels and not just their consumption. By reading recital n.70, concerning lands with a high stock of carbon, this idea is confirmed.

As a matter of fact, if this kind of land is converted to the cultivation of biofuels, there will be a release of carbon contained in the land in the atmosphere, with the result that these GHG emissions would be unable to counterbalance the reductions emitting from the consumption of biofuels instead of fossil fuels. Therefore – the recital states – the " full carbon effects" of biofuels have to be taken into account when calculating GHG savings; "[t]his is necessary to ensure that the greenhouse gas emission saving calculation takes into account the totality of the carbon effects of the use of biofuels".

Starting from 2006, the Commission encouraged the setting of minimum standards for the production of raw material necessary in biofuel production and mentioned the potential impact of modified land-use on biodiversity[74]. It therefore suggested to carefully plan the location of crops for raw material used for biofuels production in order to avoid negative consequences on biodiversity, water pollution, soil degradation, habitats and species. However, it is emphasised that sustainability criteria must be satisfied by all farm crops - not only by those grown for the production of biofuels - and be compatible with WTO requirements[75]..

Picking up this concern, the Directive establishes that land should not be converted unless the derivative release of GHG cannot, within a reasonable period, be compensated for by the emission saving resulting from the production of biofuels. This last sentence definitely clarifies the underlying idea of sustainability criteria: reduction of GHG

[69] *Communication from the Commission on the practical implementation of the EU biofuels and bioliquids sustainability scheme and on counting rules for biofuels*, cit., at 2.1.

[70] The approved schemes are the following: ISCC (German (government financed) scheme covering all types of biofuels); Bonsucro EU (Roundtable initiative for sugarcane based biofuels, focus on Brazil); RTRS EU RED (Roundtable initiative for soy based biofuels, focus on Argentina and Brazil); RSB EU RED (Roundtable initiative covering all types of biofuels); 2BSvs (French industry scheme covering all types of biofuels); RSBA (Industry scheme for Abengoa covering their supply chain); Greenergy (Industry scheme for Greenergy covering sugar cane ethanol from Brazil.

[71] *Communication from the Commission on voluntary schemes and default values in the EU biofuels and bioliquids sustainability scheme*, 2010/C 160/01, 19 June 2010.

[72] The CEN is an international non-profit organization set up under Belgian law, made up of national members (namely national standardising bodies) of the 27 European Union countries, Croatia and Turkey plus three countries of the European Free Trade Association. Its main task is to elaborate technical standards with a view to eliminate barriers to trade.

[73] Candice Stevens, at 240-241. The author opposes consumption externalities to production externalities, aimed at preventing harm when the product is produced.

[74] *Ibidem*, at 11.

[75] *Idem*.

emissions must be considered over the entire process of production and consumption of biofuels..

Article 17 divides lands with high carbon stock in three categories, among which, first of all, wetlands, *i.e.* land that is covered with or saturated by water permanently or for a significant part of the year. The second and third kinds of lands deemed to have a high carbon stock are continuously forested areas; the Directive sets out precise criteria as far as width of land, height of trees and canopy cover. These kinds of lands have been identified through national inventories of GHG and are therefore based on a scientific rationale; still, some room for misunderstanding exists, if we consider that, as it has been remarked, the expression "continuously forested areas" could be interpreted to include oil plantations, with the result that a conversion from forest to oil palm plantation would not *per se* constitute a breach of the criterion[76].

The European legislator was of course aware of the main problem underlying these norms: the calculation of the GHG impact deriving from land conversion of land carbon stocks. Recital n.71 recognizes both the need to provide economic operators with actual and standard values for the carbon stocks and the suitability of the work of the Intergovernmental Panel on Climate Change (IPCC) for this purpose.

With this aim, the Commission issued a decision setting standards for the calculation of land carbon stocks[77]. The decision is based on the work of the IPCC Guidelines for National Greenhouse Gas Inventories. As these guidelines were addressed to States in order to set up their national GHG inventories, they were not immediately applicable to economic operators. The Commission therefore completed them for this purpose.

GHG reductions, however, are not the only aims pursued by sustainability criteria, but they are matched to a moral and "purely" environmental point of view: European consumers would find it "unacceptable" that the use of biofuels resulted in the destruction of biodiverse land or of lands designated, at the national or international level, for nature protection purposes.

As a consequence, according to article 17, biofuels shall not be made from raw material obtained from land with high biodiversity value, whose characteristics are set forth. The first category of lands are primary forests and wooded land, where there is no clear visible indication of human activity and the ecological processes are not significantly disturbed.

In order to precisely define which zones are to be included in this category, the role of international organizations is essential. Recital n.69 establishes that the sustainability criteria should consider forest as biodiverse where it is a primary forest in accordance with the definition used by FAO in its Global Forest Resource Assessment.

The second category of land with high biodiversity value is made by areas designated for nature protection purposes or for the protection of rare, threatened or endangered ecosystems or species recognized by international agreements or included in lists drawn up by intergovernmental organizations or by the International Union for the Conservation of Nature. International agreements of this kind must be recognized by the Commission according to article 18 paragraph 4.

Still, a derogation to the prohibition to produce biofuels on this kind of land is given by the possibility to demonstrate that the production of raw material does not interfere with nature protection purposes.

[76] Wybe Th. Douma, *supra* note *X* at 392.
[77] 2010/335/ *Commission Decision of 10 June 2010 on guidelines for the calculation of land carbon stocks for the purpose of Annex V to Directive 2009/28/EC*, OJ L 151, 17.6.2010, p.19-41.

The third kind of land is highly biodiverse grassland. According to recital n.69, this category includes highly biodiverse savannahs, steppes, scrublands and prairies. The Commission will establish appropriate criteria and geographical ranges to define such highly biodiverse grasslands in accordance with the best available scientific evidence and relevant international standards.

Finally, biofuels produced from raw material obtained through peatlands are excluded, on the basis of the high environmental value of these habitats, unless evidence is provided that the cultivation and harvesting of that raw material does not involve drainage of previously undrained soil.

4. The compatibility of sustainability requirements in the light of international and WTO law.

Sustainability requirements imposed by Directive 28/2009 could be challenged before WTO judicial organs as being quantitative restrictions incompatible with the GATT/WTO system (article XI) or a violation of the national treatment principle (article III).

In this part we will thus analyze the possibility of affirming the legality of this kind of measure, on the basis of WTO law, but also of international law commitments concerning climate change.

The fact that sustainability standards for biofuels are equally applicable to domestic and foreign products would contribute to satisfy the condition, imposed by article III paragraph 4, imposing national treatment of like products. This norm has to be coordinated with the more general idea, contained in paragraph 1, whereby the treatment applied to foreign products cannot be applied so as to afford protection to domestic production.

Still, some features of the Directive could imply a violation of the national treatment principle. First of all, agricultural raw materials cultivated in the Community and used for the production of biofuels and bioliquids are not subject to the sustainability requirements of the Directive; if on one side this constitutes a difference with respect to foreign products, on the other it is not enough in order to allege a violation of the national treatment obligation. In order to do this, a complainant should be able to demonstrate that imported products are treated less favorably in reason of their origin and therefore that Regulation 73/2009 contains looser rules as far as feedstock production.

Default values are rather problematic as far as compliance with the national treatment principle is concerned. On the one side, the mere existence of default values just for some products could imply a less favorable treatment for those products in relation to which the value is not provided for, as the calculation of GHG savings has proved to be a very difficult task. If we consider the values themselves, we can find cases where the default value works to the advantage of European products as well as cases where foreign products are better off[78].

Further sources of discrimination can derive from the taking into account of GHG emissions from transport (as foreign products have to travel in order to enter into EU territory) or land-use requirements, some of which concerns a type of environment (i.e. primary forest) mainly absent in EU member States[79]. However, in all these cases,

[78]Wybe Th. Douma, *supra* note X, at 399-200.
[79]Idem.

demonstration of less favorable treatment is not enough, as a potential complainant should also demonstrate that this difference is due to the foreign origin of goods.

4.1 The first scenario: requirements linked to biofuel consumption

As previously described, emission savings are calculated on the basis of different elements (cultivation of raw materials, land-use change, processing, transport and distribution and use). Still, an analysis of the compatibility of these provisions with WTO law requires a distinction between conditions concerning the products itself and conditions linked to the production process. In the first scenario, the exporting State challenges the legality of the requirements concerning GHG reductions deriving from biofuel *consumption* in the territory of the importing member, *i.e.* the performance of biofuels in terms of emissions saving.

In the light of the jurisprudence concerning article XX, the complainant could allege a violation of article III paragraph 4 or of article XI, which could be in turn justified through recourse to article XX paragraph b): the 35% standard - necessary for importing biofuels into the EU - could be considered as a measure in order to protect human, animal and plant life. In this context, the jurisprudence about article XX strengthens the idea that an environmental measure might be covered by article XX even though the contribution of the measure to the aim pursued is based on a qualitative and not on a quantitative relationship[80].

A certain caution against this flexible approach is however recommended in the light of the panel report concerning export restrictions of raw materials from China: the panel warned members against carrying out an assessment of the effects of a measure "in isolation"[81] (which, in the case at issue, implied neglecting the vertical structure of the sector and the upstream-downstream interactions[82]). As a consequence, the test for contribution to the aim "must account for those policies that may offset the alleged effect of the policy"[83]. This means that the positive effect of a trade obstacle against "not performing" biofuels could be counterbalanced by secondary effects, such as an increased use of fossil fuels, as it is not to be taken for granted that the ban would automatically trigger (just) a surge in the use of biofuels complying with the Directive.

The *Raw material* report has also widened the potentialities for the application of article XX paragraph g): in assessing the legitimacy of the trade ban, the panel affirmed that, on the basis of article 31 paragraph 3 lett.c of the Vienna Convention on the Law of Treaties, the interpretation of the GATT provision must take into account the principle of permanent sovereignty over natural resources[84], considered as a principle of international law[85]. According to this interpretation, Members are allowed to use their natural resources

[80] *Brazil - Measures Affecting Imports of Retreaded Tyres*, DS332, Report of the Appellate Body, 3 December 2007, par.146: "In previous cases, the Appellate Body has not established a requirement that such a contribution be quantified. To the contrary, in *EC – Asbestos*, the Appellate Body emphasized that there is "no requirement under Article XX(b) of the GATT 1994 to quantify, as such, the risk to human life or health". In other words, "[a] risk may be evaluated either in quantitative or qualitative terms. […] it appears to us that the same line of reasoning applies to the analysis of the contribution, which can be done either in quantitative or in qualitative terms" (quoted by the panel report in *China — Measures Related to the Exportation of Various Raw Materials*, DS398, 5 July 2011, par.7484). The *Brazil-tyres* Appellate Body report also made a distinction between a measure that "brings about" a material contribution to the aim pursued, and the measure that "is apt to produce" such a contribution (cit., par.151).
[81] *China — Measures Related to the Exportation of Various Raw Materials*, cit., par.7.526.
[82] *Ibidem*, par.7.533.
[83] *Ibidem*, par.7.536.
[84] *China — Measures Related to the Exportation of Various Raw Materials*, cit., par.7.381.
[85] *Ibidem*, par.7.380.

in order to promote their economic objectives while ensuring sustainable development[86]. Applied to our case, this means that the EU could invoke paragraph g) also as a tool to protect *its own* natural resources, *i.e.* its environment. If, as the panel said, "conservation and economic development are not necessarily mutually exclusive policy goals", the EU directive would be an attempt to conciliate the protection of EU resources with economic objectives, embodied by compliance with WTO rules. In the words of the panel, "the ability to enter international agreements – such as the WTO Agreement – is a quintessential example of the exercise of sovereignty"[87].

As an alternative to an article XX defense, the importing State could argue, on the basis of the *Asbestos* jurisprudence, that no violation of WTO rules occurs, as it is reasonable to assume that the different impact on climate change and the different risk for human health of biofuels complying and not complying with the requirements set by the Directive would make them unlike products[88]. As it has been remarked, not only physical properties, but also the "end-use" of biofuels and fossil fuels can be different as, if we adopt a broader view of this concept, the specific end-use of a biofuel is to enable vehicles to move with a reduced amount of GHG emissions with respect to fossil fuels, whose end-use is, by contrast, is unrelated to any environmental purpose[89]. A further difference between the two products could derive from the different consumers' perception, therefore influencing their tastes and habits[90].

It is important to remember that, as mentioned before with relation to the likeness analysis[91], the panel reports concerning tuna products and raw materials showed that all these considerations can be extended to article 2.1[92] and 2.2[93] of the TBT Agreement, concerning national treatment and necessity of technical regulations respectively.

4.2 The second scenario: requirements linked to biofuel productio.

In the second scenario, the exporting State could challenge the legality of requirements concerning GHG reductions linked to biofuel *production* (ex. the kind of raw materials allowed) on one hand and of requirements concerning biodiversity on the other, when both these categories of standards are applied to the territory of the exporting member. The GATT jurisprudence concerning extraterritorial measures would therefore apply.

[86] *Ibidem*, par.7.381.
[87] *Ibidem*, par.7.382.
[88] The identification of the products or group of products to be compared in the likeness analysis is all but simple. This clearly emerges in the disputes concerning clove cigarettes and tuna products, where the panel struggled in singling out the products at issue and relied heavily on parties' declarations. See *United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, cit., par.7.228 ss; *United States - Measures Affecting the Production and Sale of Clove Cigarettes*, cit., par.7.124 ss.
[89] Wybe Th. Douma, *supra* note *X,* at 404.
[90] *Idem*; the idea is effectively expressed by Sonia Murphy (*The multilateral trade and investment context for biofuels: Issues and challenges*, cit., at 6) who states that "climate change is a powerful contributor to the public's receptiveness to biofuels policies. However, it has to be underlined that this argument has been rejected by the panel in the latest Tuna report. Even admitting the existence of consumer preferences in the US based on the dolphin-safe status of tuna and their relevance in the likeness analysis, the panel defined itself "not persuaded" that a consideration of this factor would modify the conclusion that US and Mexican tuna were similar (*United States – Measures concerning the importation, marketing and sale of tuna and tuna products*, cit., par.7.249).
[91] See *supra* at 23.
[92] "Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country."
[93] "Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create. Such legitimate objectives are, inter alia: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, inter alia: available scientific and technical information, related processing technology or intended end-uses of products".

As far as the first category is concerned, the EU could again argue, on the basis of the *Asbestos* jurisprudence mentioned above, that products are unlike and that therefore no violation of article III exists: the elimination of large portions of rainforest and the consequences this has on the fight against climate change can make two products different from each other. On the other side, the use of the unlikeness argument is more difficult to implement in comparison with the previous scenario because of the very concept of likeness: the *Asbestos* jurisprudence managed to introduce risk as a factor determining likeness, but evidence of a risk linked to the use of a certain raw material is hard to provide, especially if no trace of the raw material is left in the product itself.

In this regard, the statement of the panel in the *Clove cigarettes* report concerning the "relativity" of products likeness[94] could open new grounds for overcoming the limit of "non product-related"[95] PPMs. If the aim of the Directive is identified with the protection of global environment, the EU would have a good point in considering biofuels performing differently in terms of GHG emissions as different products.

As we have seen before, the Appellate Body report on distilled spirits leaves little room for an autonomous role of PPMs *per se*: "as long as the differences among the products, *including a difference in the raw material base*, leave fundamentally unchanged the competitive relationship among the final products, the existence of these differences does not prevent a finding of likeness". However, the stress put by the AB on the competitiveness relationship could also work in favor of a distinction between biofuels and fossil fuels, as it is plausible to sustain that the two final products are not interchangeable in reason of the risk factor, with the consequence that the ultimate problem would become a scientific one, i.e. that of demonstrating the actual environmental impact of biofuels.

A second option could consist in recognizing the violation of GATT rules (especially if article XI is invoked, because in this case no likeness issue arises) but justifying it through article XX g), on the basis of the *Shrimps* jurisprudence. In the case at issue, however, it is important to point out that the reasoning of the Appellate Body was strictly linked to the migratory nature of the resource (sea turtles); therefore, in the case of biofuels, a possible justification for an extraterritorial measure will depend on the identification of the goods whose protection is sought. If the good is identified with the atmosphere, therefore with a global common[96], it could be plausible to accept an extraterritorial measure, because the importing State is actually affected by the behaviour of the exporting State (all States actually share the atmosphere)[97].

Finally, the importing State could try to justify the restrictive measure through recourse to article XX b), on the assumption that this paragraph allows extraterritorial measures in order to protect human, animal and plant life[98]. Here, the statement of the panel in the last *Tuna* dispute (whereby the technical requirement is addressed to the product and not to the member State) could make the imposition of a technical requirement on biofuels easier to justify. On the basis of this idea, what the EU directive does is not to impose its own

[94] See *supra* at 45.
[95] See *supra* at 24.
[96] In the *Shrimps* report, the Appellate Body affirmed that, in accordance with the principles of customary interpretation and of effectiveness in treaty interpretation, the expression "exhaustible natural resources" contained in article XX paragraph g) includes not only exhaustible mineral or other non-living natural resources, but also living resources – in that case, sea turtles. It is therefore reasonable to assume that no obstacle would arise in applying this paragraph to the atmosphere (*United States - Import Prohibition of Certain Shrimp and Shrimp Products*, Report of the Appellate Body, par.130).
[97] Wybe Th. Douma, *supra* note *X,* at 410-411.
[98] *Ibidem*, at 412-414.

regulations on WTO States exporting this product, but simply to set a requirement a biofuel has to comply with, no matter its origin.

In the last *Tuna* report, the panel made a further point which could reinforce the EU position : the existence of adaptation costs on the part of the exporter are part of the assessment concerning less favourable treatment; still, the mere existence of a cost is not sufficient to affirm that the imported product is subject to such a treatment[99]. Therefore, compliance with WTO rules might imply that exporting countries face some extra costs in order to satisfy EU technical requirements.

The second set of measures included in the second scenario are those aimed at respecting biodiversity.

In this case, again, GATT compatibility could be argued on the basis of the *Asbestos* jurisprudence, considering biodiversity a global interest whose protection is essential for everybody.

Otherwise, justification can be provided through article XX paragraph a), therefore invoking the defense of the morality of EU consumers, which is actually the point made by Recital n.24 of the Directive.

The conservation of exhaustible natural resources (paragraph g) can also be invoked on the basis of the *Shrimps* jurisprudence, provided that biodiversity is considered a shared resource, so that even the importing State can be affected by an action carried out by the exporting State. Finally, the EU could justify the measure through paragraph b), considering that biodiversity can easily fall under the concept of the protection of human, animal and plant life[100]. However, it must be underlined that in the case of sustainability requirements addressed to the conservation of biodiversity, an extraterritorial measure would be harder to justify, because of States' sovereign rights over their natural resources.

4.3 The influence of international law on climate change.

Once exhausted the possible options available to the EU in order to face a complaint on the part of biofuel exporters, a further question to tackle in this context is whether the right of the EU to impose a trade-restrictive measure aimed at the reduction of GHG emissions (independently from the location of the resource) might find a basis in an international obligation, either treaty-based or customary.

Let us analyze these two options in detail. The obligation to stabilize and reduce GHG emissions derives from the membership of the EU to the United Framework Convention on Climate Change and to the annexed Kyoto Protocol, according to which EU member States are bound to precise reduction commitments by 2012, but also, in general terms, to prevent and reduce GHG emissions and to fight against climate change.

According to some authors, these instruments could even base an international customary duty to curb GHG emissions so as to maintain the increase in global temperatures to below 2 degrees Celsius based, in turn, on the right to sustainable development and on fundamental personal rights (such as the right to life)[101].

[99] *United States - Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, cit., par.7.342.
[100] Wybe Th. Douma, *supra* note *X,* at 41-415. The author further observes that the EU measure could easily satisfy "the necessity test" established by the Korea-Beef Appellate Body report (**XXX**), as the aim pursued (the protection of human, animal and plant life) is of highest importance and the contribution of the measure to the aim is evident (at 415-416).
[101] Ottavio Quirico, *EU Border Tax Adjustments and Climate Change: Reaching Consensus within the International Legal Context*, 19 *European Energy and Environmental Law Review* 232-233 (2010).

Could obligations stemming from UNFCCC justify border and non border measures concerning GHG? This question can be answered in two different ways.

The first one concerns the relationship between the WTO system and general international law, and more exactly the question whether the former is a "self-contained regime" or, conversely, whether it can be permeated by other norms[102].

The existence of a link between the two contexts has been strongly supported by doctrine, on the basis of two main points: article 31 paragraph 3 lett c) of the Vienna Convention on the Law of Treaties and article 3 paragraph 2 of the Dispute Settlement Understanding of the WTO. The latter states that the dispute settlement procedure is aimed at clarifying members' rights and obligations, "in accordance with customary rules of interpretation of public international law".

Article 31 paragraph 3 lett.c) of Vienna Convention affirms that, in interpreting a treaty, "relevant rules of international law applicable in the relations between the parties" have to be taken into account. These elements have been read so as to support the idea that the WTO system might include norms and values belonging to other systems of law[103] and it is therefore reasonable to imagine that they might support an interpretation of the General Agreement and of the Annexed Agreements coherent with the need to reduce GHG emissions. This could open up the possibility of imposing requirements such as those contained in Directive 28/2009, even though they do not stick to traditional WTO jurisprudence regarding exceptions and product likeness.

The second approach in order to identify an obligation upon States to adopt measures in order to fight against climate change consists in considering the obligations included in the UNFCCC and in the Kyoto Protocol as customary norms of an *erga omnes* character[104]. Still, this idea is still considered very much *de lege ferenda*. As authoritatively suggested, the most viable approach would consist in applying concepts such as "common heritage of the mankind" and "common concern" in order to consider the fight against climate change as interdependent *erga omnes* obligations[105]. According to the definition give by the Sir Gerald Fitzmaurice, this kind of obligation is characterized by the fact that "a fundamental breach of one of the obligations of the treaty by one party will justify a corresponding nonperformance generally by the other parties, and not merely a non-performance in their relations with the defaulting party"[106]. If on one side, Crawford himself underlined that the recognition or establishment of a collective *interest* of States is still limited in application[107], on the other, the idea of a common *concern* would allow to treat climate change as a global issue affecting the whole international community, giving rise to a legitimate interest in the conservation of this resource and to a special responsibility in its preservation.

Without entering into the delicate question of the existence of an international responsibility for climate change[108], suffice it to say that international law, at its current

[102] Joost Pauwelyn, *The role of Public International Law in the WTO: How far can we go?*, 95 *American Journal of International Law* 535 (2001); A. Lindroos, M. Mehlig, *Dispelling the Chimera of 'Self-Contained Regimes' International Law and the WTO*, 16 *European Journal of International Law* 857 (2005).

[103] Gabrielle Marceau, *A call for coherence in international law: praises for the prohibition against "clinical isolation" in WTO dispute settlement*, *Journal of World Trade* 87 (1999).

[104] Malgosia Fitzmaurice, *Responsibility and Climate Change*, 53 *German Yearbook of International Law* 93 and 97-100 (2010).

[105] ILC, Third report on State responsibility by Mr. James Crawford, Special Rapporteur, A/CN.4/507 (2000), par.92.

[106] Third Report on the Law of Treaties by Mr. G.G. Fitzmaurice, Special Rapporteur, A/CN.4/115 and Corr.1 (1958), Extract from the Yearbook of the International Law Commission - 1958 , vol. II, par.27-28.

[107] ILC, Third report on State responsibility by Mr. James Crawford, Special Rapporteur, cit., par.92.

[108] This subject has extensively and thoroughly been examined by M. Fitzmaurice (see supra note n.).

stage of development, does not yet establish upon States a proper customary obligation (and the corresponding right) to adopt measures in order to fight against this phenomenon.

Conclusion.

The EU Directive concerning biofuels might constitute a new challenge for the WTO system and, in more general terms, for international environmental law.

Apart from witnessing an interesting shift, within the international community, in the perception of the role of biofuels considering a number of problems (oil shortage, energy dependency), the sustainability requirements set by the EU put into discussion some of the traditional categories used in trade law in order to classify trade obstacles.

First of all, criteria imposed by the Directive raise once again the extraterritoriality issue which, starting from the *Tuna-Dolphin* era, has never found a definite solution. The global nature of the common good whose protection is sought (suitable life conditions for human beings) constitutes further evidence of the inappropriateness of a rigid ban of extraterritorial measures in the field of environmental law.

Secondly, the Directive stimulates further reflection about the issue of PPMs and, more specifically, about the rigid distinction between product and non-product related PPMs. Even if, in the course of this work, we accepted this distinction as the conceptual premise upon which literature was built, standards imposed on biofuels clearly challenge this view, as in some cases it is impossible to determine to which of the two categories the standard belongs. If requirements about the use of biodiverse land can reasonably be deemed non-product related, standards about GHG emissions in the whole life cycle of the product do not suit this distinction.

A possible new role could be therefore played by the morality exception contained in GATT article XX; not only is this possibility plausible because of the "moral value" nowadays attached to the protection of the environment, but also the use of this exception would allow the limits stemming from the category itself of PPMs to be overcome.

Finally – but the two aspects are related – a possible complaint before WTO judicial organs will necessarily impose a reconsideration of the likeness issue, and up to which point it is possible to "stretch" the *Asbestos* jurisprudence.

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