Executive Summary

Parties to the UN Framework Convention on Climate Change (UNFCCC) will come together in Bonn from 16 to 27 July 2001 to finalise the rules for the Kyoto Protocol. The United States – the world’s largest emitter of greenhouse gases – will not actively participate in the negotiations but has decided to opt out of the international co-operation effort that the Kyoto Protocol represents. Instead, the US government has indicated that it will participate in the Bonn negotiations to ensure that decisions taken by countries finalising the Kyoto Protocol do not infringe US rights under the international trade regime (WTO).

WTO-concerns voiced in international environmental negotiations are usually not based on a sound legal assessment but rather serve the strategic purpose to exert a “regulatory chill” on more progressive governments to prevent them from taking meaningful decisions. The effectiveness of this “regulatory chill”-strategy is enhanced by the fact that diplomats and experts negotiating on climate change often only have a vague understanding of the international trade law relevance of their decisions. Against this background the paper clarifies and makes transparent the requirements of international trade law pertaining to climate change policies and shows the lack of credibility behind a “regulatory chill”-strategy.

The analysis proceeds along a selection of important national and international climate policy measures that will likely be taken by governments to reduce greenhouse gas emissions and which might serve to prevent “free-riding” of other industrialised countries which decide to abstain from the adoption of such policies. For each of these measures we set out the minimum requirements of international trade law governments have to be aware of when designing climate change programmes. The analysis reveals that in large part climate policy measures will not conflict with international disciplines on trade (see main findings – Section IV of this paper).

However, some uncertainties remain and in some cases measures desirable from a climate policy perspective will be incompatible with international trade law as it is interpreted and applied today.
As regards strategies to address the remaining uncertainties and incompatibilities the analysis shows that the application and interpretation of WTO-rules does not take place in a political vacuum. By co-operating in the WTO, the UNFCCC, in the context of the Kyoto Protocol, or in other international, regional, and bilateral fora governments can directly influence the application and interpretation of relevant WTO-provisions and thereby raise the likelihood that climate change policies will be regarded as WTO-compatible in case of a challenge under the WTO’s Dispute Settlement Mechanism.

We also find that trade sanctions against non-Parties to the Kyoto Protocol, i.e. measures that are not targeted at achieving the aims of the UNFCCC but simply discriminate against goods or services from non-Kyoto Parties to force them to join the Protocol, are very likely not to be compatible with WTO law. Furthermore, in the context of international climate change policies, direct trade sanction against non-Parties will not be effective tools to either reduce greenhouse gas emissions or to offset potential competitive disadvantages suffered by participating countries. Rather, the economic effects of climate change measures taken by progressive States that are allowed under WTO law as identified in this paper will increasingly exert pressure on climate change laggards to follow suit.

Our main conclusion is that governments which are seriously committed to addressing the challenge of climate change are well advised to bring the Kyoto Protocol into force, since the adoption of this multilateral agreement will considerably reduce remaining uncertainties about the WTO-compatibility of domestic and international climate policy measures. Furthermore, if in force, the Kyoto Protocol would constitute an important international forum in which progressive governments can move forward to address specific issues and tensions that may arise between international trade law and the climate change regime.

In contrast, failure to bring the Kyoto Protocol into force will raise the likelihood of trade-conflicts arising from climate change policies. This would not only put at risk the effectiveness of domestic climate change programmes. In some cases it would also require resorting to second best climate policy-options, which would substantially raise the aggregate economic costs for “internalising” climate change externalities. Furthermore, a range of international trade disputes about climate change measures would pose a very serious challenge to achieving a mutually supportive relationship between trade and climate change policies. An open and transparent international economic system, with a long-term commitment to sustainable development is, however, key for a rapid diffusion of new climate change-related knowledge and technologies and for lower aggregate costs of stabilising greenhouse gas concentrations in the atmosphere at a level that may suffice to prevent dangerous anthropogenic interference with the climate system. The diffusion of safe and sustainable technologies and favourable conditions for the transfer of finance and technology, particularly to developing countries, is also what is needed to secure credibility with and support by the many developing countries that will suffer most from the negative impacts of climate change if no effective measures are taken.
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I. Introduction

When Parties to the UNFCCC come together in Bonn from 16 to 27 July 2001 to finalise the Kyoto Protocol, the United States – the world’s largest emitter of greenhouse gases – will not actively participate in the negotiations anymore. The US government has indicated, though, that one of the main reasons for its delegation to come to the Bonn Conference is to ensure that decisions taken by countries finalising the Kyoto Protocol do not infringe US rights under the international trade regime.

Clearly, the US is correct, in principle, to insist that rights conferred to it under international law outside the climate change regime, and particularly under WTO-law should not be affected by political decisions taken to finalise the Kyoto Protocol. Past experience shows, however, that in international environmental negotiations concerns raised about the “compatibility of this decision with WTO-law” are very often not based on a sound legal assessment but rather serve the strategic purpose to exert a “regulatory chill” so that more progressive governments refrain from taking meaningful decisions. The effectiveness of this “WTO-incompatibility”-threat strategy is enhanced by the fact that diplomats and experts negotiating on climate change or other environmental issues often only have a vague understanding of relevance of their decisions for international trade law.

It is against this background that this paper takes a close look at interactions between domestic and international climate change measures with international trade law. Obviously, many climate change policy instruments available to governments will affect patterns of international trade in products and services. Furthermore, for – real or perceived – concerns about competitiveness, governments implementing climate change policies domestically will explore options to offset some of the (perceived) economic costs, particularly in relation to industrialised countries which refuse to live up to their international responsibilities in this field.

Apart from alleviating competitiveness concerns, trade policy measures may also be regarded as tools to prevent “free-riding” of industrialised countries not willing to act on the climate change issue. Most of these climate policy measures have to comply with disciplines set out in international trade law. Therefore, international trade law will assume an important role in shaping the availability and potential design of policy measures adopted by governments to reduce greenhouse gas emissions or the enhancement and protection of carbon sinks such as forests.

The main aim of this paper is to clarify and make transparent the requirements of international trade law pertaining to climate change policies and thereby allow negotiators to assess the credibility of a “WTO-threat”-strategy. In Section II we proceed along a selection of important examples of policy measures that will likely be taken by governments to reduce greenhouse gas emissions and in preventing “free-riding” of other industrialised countries which decide to abstain from the adoption of such policies. We set out the minimum requirements of international trade law governments have to be aware of when designing climate change policies and show that in large part climate policy measures will not conflict with international disciplines on trade. Unfortunately, however, in some cases the precise contours of
obligations resulting from international trade law are yet to be defined. And even where interpretations of WTO-rules by Dispute Settlement Panels or the Appellate Body exist, such interpretations may change in the future.\textsuperscript{1} Against this background Section II fleshes out specific ideas for policy initiatives that might be undertaken by progressive governments to address areas where climate policy measures would either be incompatible with international trade law or where their compatibility is uncertain.

As opposed to the domestic policy measures, Section II will also analyse international measures foreseen to support climate protection: the flexible mechanisms of the Kyoto Protocol. We will briefly analyse their compatibility with international trade law while recognising that many of the rules necessary for such an analysis remain yet to be agreed. Where uncertainties in the legal analysis remain, we argue that the fact that they are the result of an international co-operation effort will strongly influence their evaluation from the trade law perspective.

Section III then takes up the issue of international co-operation to address trade concerns relating to climate change policies on a more fundamental level. It highlights that the interpretation of WTO-rules does not take place in a political vacuum. Just the opposite: interested governments have many options at hand to reduce uncertainties about the WTO-compatibility of their climate change policies. By cooperating in the WTO, the UNFCCC, in the context of the Kyoto Protocol, or in other international, regional, and bilateral fora, they can directly influence the application and interpretation of relevant WTO-provisions and thereby raise the likelihood that climate change policies will be regarded as WTO-compatible in case of a challenge under the WTO’s Dispute Settlement Mechanism. To a considerable extent international law circumscribes the “room for manoeuvre” governments have in this respect. Section III of this paper serves to sketch out the international framework on co-operation obligations which exist in the area of trade and climate change and shows how meeting or defecting such obligations is likely to alter the application and interpretation of WTO-rules relating to climate change policies characterised as problematic or WTO-incompatible in Part II. In Part IV of this paper we summarise our findings.

The main conclusion flowing from our analysis is that governments which are seriously committed to addressing the challenge of climate change are well advised to bring the Kyoto Protocol into force, since the adoption of this multilateral agreement will considerably reduce remaining uncertainties about the WTO-compatibility of domestic and international climate policy measures. Furthermore, if in force, the Kyoto Protocol would constitute an important international forum in which progressive governments can move forward to address specific issues and tensions that arise between international trade law and the climate change regime.

\textsuperscript{1} The findings of WTO dispute settlement panels or the Appellate Body do not follow the common law doctrine of \textit{stare decisis}, which would require them to regard a specific interpretation of a question of law by another court of equal rank as a binding precedent for future cases. Adopted panel or Appellate Body reports are, however, often considered by subsequent panels. They also create legitimate expectations among WTO Members as to the future application and interpretation of WTO-law (see \textit{Japan-Taxes on Alcoholic Beverages}, Report of the Appellate Body of 4 October 1996, adopted on 1 November 1996, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, p. 14).
In contrast, failure to bring the Kyoto Protocol into force will raise the likelihood of trade-conflicts arising from climate change policies. This would not only put at risk the effectiveness of domestic climate change programmes. In some cases it would also require resorting to second best climate policy-options, which would substantially raise the aggregate economic costs for “internalising” climate change externalities. Furthermore, a range of international trade disputes about climate change measures would pose a very serious challenge to achieving a mutually supportive relationship between trade and climate change policies. An open and transparent international economic system with a long-term commitment to sustainable development is, however, key for a rapid diffusion of new climate change-related knowledge and technologies and for lower aggregate costs of stabilising greenhouse gas concentrations in the atmosphere at a level that may suffice to prevent dangerous anthropogenic interference with the climate system.\(^2\) The diffusion of safe and sustainable technologies and favourable conditions for the transfer of finance and technology, particularly to developing countries, is also what is needed to secure credibility with and support by the many developing countries that will suffer most from the negative impacts of climate change if no effective measures are taken.

### II. WTO-Compatibility of Climate Change Policies

Climate change policies with potential trade implications may broadly be grouped into three categories:

1) policies and measures taken at the domestic level to reduce greenhouse gas emissions and to level out comparative disadvantages arising from climate policy measures;

2) flexibility mechanisms under the Kyoto Protocol, i.e. Emissions Trading, Joint Implementation and the Clean Development Mechanism.

3) trade-sanctions against non-Parties to the Kyoto Protocol to prevent economic “free-riding” on the emission reduction efforts of more progressive governments

In the following we briefly analyse the WTO-compatibility of the first two categories (i.e. domestic policies and measures, flexibility mechanisms) and come back to the issue of trade-sanctions against non-Kyoto Parties in the concluding section of this paper.

#### 1) WTO-Compatibility of Selected Domestic Policies and Measures

Domestic Policies and Measures constitute the fundamental basis for an “internationalisation” of climate change externalities into national economies around the globe. Article 2 para. 1 (a) Kyoto Protocol provides a non-binding and non-exhaustive list of policies and measures Annex-I-Parties may take in meeting

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their greenhouse gas reduction targets. Apart from this, the Kyoto Protocol provides little guidance on how domestic climate change policies shall be co-ordinated internationally and how arising concerns about trade-effects of such measures and international competitiveness shall be addressed. Any substantive action in this respect is delegated to future activities of the Meeting of the Parties to the Kyoto Protocol. In consequence, the international trade regime presently has an important role in judging upon the permissibility of climate policy instruments and the extent to which potential trade distorting effects of domestic climate change policies are deemed acceptable.

In the following we briefly set out the requirements of international trade law relating to a) energy efficiency standards, b) eco-labelling relating to carbon or energy intensity, c) public purchasing of climate friendly products and services, d) reduction of subsidies for carbon-intensive energy uses and introduction of new subsidies for climate friendly investments. We show that most climate change policy measures raise no concerns under the WTO Agreements. Some uncertainties and incompatibilities exist, though, and we suggest some concrete policy initiatives to overcome them.

a) Energy Efficiency Standards

(1) relevance of energy efficiency standards for climate change and international trade: The introduction of technology or performance standards on the energy efficiency of products is an important option available to governments to reduce greenhouse gas emissions, since energy needs for the same service are reduced and fossil fuel consumption declines. The latter naturally only occurs if energy needs do not increase overall in the respective country or region (i.e. efficiency gains could be offset by more equipment requiring energy input).

Measures under this rubric might include new efficiency standards for electrical equipment (computers and computer screens, deep-freezers, light bulbs), fuel consumption standards for cars and trucks, new requirements on electricity providers to employ heat/electricity co-generation plants, or insulation requirements on building material. Obviously, the introduction of new and mandatory energy efficiency standards will influence the type of products allowed in the domestic market-place and thus affect the...
import of products that do not accord to these standards. If export-oriented producers in other countries whose products do not live up to more stringent energy efficiency standards suffer economic losses, governments of other countries might consider to challenge some of these new energy efficiency standards under WTO law.

From the perspective of international trade law, a basic distinction needs to be drawn between energy efficiency standards applying to products and standards applying to the processing and production methods used in manufacturing products (so called PPMs).

(2) WTO-compatibility of energy efficiency standards applying to products: Energy efficiency standards applying to products take into account the performance of a product in terms of energy efficiency during its use. Such standards have to conform with requirements set out in the GATT 1994 and the Agreement on Technical Barriers to Trade (TBT Agreement)\(^7\) (see Boxes 1 and 2).

GATT 1994: The national treatment rule of GATT 1994 requires that imported products shall be accorded treatment no less favourable than that accorded to “like” domestic products in respect of all laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products.

**Box 1: Relevant requirements of the GATT 1994**

<table>
<thead>
<tr>
<th><strong>Article III – National Treatment</strong></th>
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<tbody>
<tr>
<td><strong>Article III.1</strong> requires that internal taxes and other internal charges, and laws, regulations and requirements affecting the marketing of products are not applied to imported or domestic products <strong>so as to afford protection to domestic production</strong> (emphasis added).</td>
</tr>
<tr>
<td><strong>Article III.4</strong> stipulates that imported products shall be accorded <strong>treatment no less favourable than that accorded to “like” domestic products</strong> in respect of all laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution or use of products (emphasis added).</td>
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<tr>
<th><strong>Article XX – General Exceptions</strong></th>
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<td>Requires that 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. Apart of this nothing in GATT-Agreement shall be construed to prevent the adoption or enforcement of measures:</td>
</tr>
<tr>
<td>b) necessary to protect human, animal or plant life or health; ….</td>
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<tr>
<td>g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.</td>
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</table>

\(^7\) Although the TBT Agreement further specifies requirements set out in Article III.4 GATT 1994, the WTO Agreements do not explicitly stipulate that the TBT Agreement should be regarded as **lex specialis** to the GATT 1994. In *United States – Standards for Reformulated and Conventional Gasoline*, Report of the Panel, adopted on 20 May 1996, WT/DS2/9 (“US-Reformulated Gasoline”) the Panel found that if a measure is incompatible with the GATT 1994, there is no need to assess its compatibility with the TBT Agreement. On the other hand side, an interpretative note to Annex 1A of the Uruguay Round Multilateral Agreements on Trade stipulates that if a measure is permissible under the GATT 1994 but not under the TBT Agreement, the latter agreement shall prevail to the extent of the conflict. In effect, a measure will have to conform to both the GATT 1994 and the TBT Agreement to be WTO-compatible.
The first issue arises if a product meeting an energy efficiency standard can legitimately be distinguished from another product not meeting this standard. If, for example, – from the perspective of international trade law – there is a difference between an energy efficient washing machine and a washing machine which wastes electricity, or if both types of washing machines have to be regarded as “like products” and therefore need to be treated equally in the marketplace.

The determination of “likeness” between domestic and imported products turns on the existence of a competitive relationship between these products in the marketplace.\(^8\) Panel Reports and the Appellate Body have concluded that the assessment if or not such competitive relationship exists can only be made on a case-by-case basis involving an “unavoidable element of individual, discretionary judgement”. Relevant criteria employed in this assessment include (i) the properties, nature and quality of the products, (ii) the end-uses of the products, (iii) consumers’ perceptions and behaviour in respect of these products, and (iv) the tariff classification of the products.\(^9\)

Recent case law specifying the term “like products” indicates that states have some discretion to draw a distinction between seemingly “like” and substitutable products based on the different environmental or health impacts of such products as long as this distinction does not afford protection to domestic production.\(^10\) As regards climate change mitigation measures, such wide interpretation of the “like products”-clause is backed by the international recognition of human induced climate change and underlying patterns of energy use as a public policy concern and also by the increasing awareness and sensitivity of consumers to the energy consumption of products. Consumers already differentiate on the basis of energy efficiency and such behaviour is likely to increase as climate change becomes more perceptible. Some note of caution is warranted, though: interpretations of the “like products”-clause by WTO panels and the Appellate Body may be subject to change.\(^11\) Depending on the scope of market barriers and market distortions that could arise as a consequence of governments implementing comprehensive climate change programmes, panels and the Appellate Body may resort to a more conservative interpretation of the “like products”-clause.

If an energy efficiency standard passes the hurdle of the “like-products”-clause, the national treatment obligation of Article 3 para. 4 GATT 1994 further requires that a standard is applied consistently to domestic and to imported products. When meeting this requirement, an energy efficiency standard would still be regarded as WTO-compatible, even if accompanied by a marketing-ban on products not meeting such standards.\(^12\)

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9 With further references see European Communities – Asbestos, id., para. 101.


11 See footnote 1 above for explanation.

12 This is explicitly clarified in a Note to Article III GATT 1994.
In case that an energy efficiency standard is seen to discriminate against other “like products” not meeting this standard, it will violate the GATT 1994 unless it falls under the “General Exceptions” provision of Art. XX (see Box 1). It is to be noted that the measures listed in the exceptions clauses relating to environmental protection in Art. XX b) and g) GATT 1994 do not include measures to protect the “global climate” or the “global commons”. However, considering the expected effects of climate change on inter alia the stability of ecosystems, on biological diversity, or on the spread of tropical diseases as well as the widespread recognition of climate change as a global concern as expressed in the UNFCCC and other international agreements and declarations, existing case-law suggests that the exceptions in Article XX GATT 1994 would be interpreted extensively to also cover measures relating to the protection of the global climate.\(^\text{13}\)

It is thus fairly safe to assume that energy efficiency standards found to violate Article III GATT 1994 would be regarded to fall under either Article XX b) or g) GATT 1994 and therefore would be provisionally justified. To ultimately qualify as an exception under Article XX, the efficiency standard under scrutiny would also have to satisfy the requirements of the introductory clauses to this provision (the so called “chapeau”). At its core the additional requirements laid out in the “chapeau” serve to maintain a balance of rights and obligations between the rights of a WTO Member to invoke an exception under Article XX, on the one hand, and the substantive rights of other Members under GATT 1994 on the other.\(^\text{14}\)

While the exact meaning of the “chapeau’s” wording are yet to be specified, existing case-law suggests that the following aspects will be taken into consideration when determining the appropriate balance between the rights and obligations of WTO Members invoking an exception under Article XX: (i) the acknowledgement of climate change as an issue of global concern as expressed in multilateral environmental agreements, important policy declarations, and national and international expert reports; (ii) whether or not an energy efficiency standard is designed to achieve its legitimate objective in the least trade restrictive manner in both substantive and procedural terms; (iii) whether or not co-operative efforts have been made to address the trade-restrictive effects resulting from an environmental policy measure.

To conclude, if energy efficiency standards are developed and applied in a transparent, co-operative and non-discriminatory manner, and if a clear link can be established between a measure and the pursuit of climate policy objectives, prospects are good that such measure will not be regarded as incompatible with obligations resulting from the GATT 1994. Uncertainties which remain would even further be reduced in the presence of a multilateral environmental agreement requiring the adoption of such measures.\(^\text{15}\)

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\(^\text{14}\) Appellate Body *Shrimp-Turtle*, para. 156.

\(^\text{15}\) This argument is further elaborated in Section III of this paper.
TBT Agreement: Mandatory or voluntary product-related energy efficiency standards fall under the definition of “technical regulation”, respectively of “standard” set out in the TBT Agreement\(^\text{16}\) and therefore have to be in conformity with the requirements set out in this agreement. The underlying rationale of the TBT Agreement is that standards – despite their consistency with the national treatment rule of GATT 1994 – can still create barriers to trade by excluding imports of individual products which fail to operate to a required standard or which do not meet necessary product specifications. To avoid this, the TBT Agreement establishes minimum requirements on the way technical regulations or standards have to be designed and applied to be compatible with international trade law trade (see Box 2).\(^\text{17}\)

*Box 2: Relevant requirements of the TBT Agreement*

| Article 2.1 | requires that with respect to technical regulations imported products shall be accorded treatment no less favourable than that accorded to like products of national origin. |
| Article 2.2 | stipulates that technical regulations must not be prepared, adopted or applied with a view to or with the effect of “creating unnecessary obstacles to international trade”\(^\text{18}\). They will be regarded as an “unnecessary obstacle to international trade” if they are “more trade restrictive than necessary to fulfil a legitimate objective”. Protection of the environment is amongst the legitimate objectives mentioned in this provision. In the pursuit of this legitimate objective, technical regulations may be based on *inter alia* available scientific and technical information, related processing technology or intended end-uses of products. |
| Article 2.3 | includes a preference for technical regulations to be based on international standards. Where relevant international standards exist Members shall use them as a basis for their technical regulations, except when international standards would be an ineffective means for the fulfilment of the legitimate objectives pursued. |
| Article 2.4 | states that whenever a technical regulation is in accordance with relevant international standards it shall be rebuttably presumed not to create an unnecessary obstacle to international trade. |
| Article 2.7 | encourages Members to accept technical regulations of other Members as equivalent to their own technical regulations. |

Further provisions of the TBT-Agreement set out transparency-, notification-, and information-requirements relating to the preparation, adoption, and application of technical regulations.

Initially, it is important to highlight that (i) the enhancement of energy efficiency through the use of product-related standards is a legitimate public policy objective under Article 2.2 TBT Agreement\(^\text{18}\), (ii) in principle, the TBT agreement does leave WTO Members the freedom to choose the level of (environmental) protection, and thus the stringency of energy efficiency standards, they deem appropriate to achieve a public policy objective.\(^\text{19}\)

Similar to the GATT 1994, the TBT Agreement sets out the basic requirement that with respect to all technical regulations and standards, imported products shall be accorded treatment no less favourable than that accorded to products of national origin. The TBT Agreement, however, further demands that

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\(^{16}\) See the definitions in Annex I TBT Agreement.

\(^{17}\) The minimum requirements set out in the TBT Agreement are – in part – *absolute* standards, i.e. standards applying regardless of whether or not other WTO Parties suffer economic losses from technical regulations. This regulatory approach contrasts with the Article III GATT 1994, which only establishes *relative* obligations, i.e. obligations relating to the relationship between foreign and domestic products.

\(^{18}\) Article 2.2 TBT Agreement exemplarily mentions “protection of the environment” as a public policy objective. Given the presence of the UNFCCC and of international and national expert assessments on the reality of human induced climate change, it is safe to assume that preventing climate change will be viewed as a legitimate policy objective.

\(^{19}\) See Preamble TBT Agreement.
technical regulations “shall not be more trade restrictive than necessary to fulfil a legitimate objective, taking account of the risks that non-fulfilment would create”. At present, no case-law exists on the interpretation of the term “necessary” in Article 2.2 TBT Agreement, but the similarity in language to Article XX b) GATT 1994 suggests that a measure will be regarded as “necessary” if no alternative measure is available that could reasonably be expected to achieve the same public policy objective in a less trade-restrictive manner.\(^{20}\)

Given the difficulties involved in further substantiating the “necessary”-requirement on an abstract level of analysis, it is important to highlight that in practice the compatibility of energy efficiency standards with the TBT Agreement will largely hinge on the particular circumstances of individual cases. To deal with the considerable discretion given to panels and the Appellate Body in determining whether or not an energy efficiency standard is “necessary”, governments have to ensure that their energy efficiency standards are adopted in a transparent manner and that the motives underlying the adoption of a particular measure as well as the consideration given to potential alternatives in the standard setting process are well documented. Furthermore, as the TBT Agreement favours international over national standards (they are presumed to be legitimate)\(^{21}\), governments committed to carrying the climate change issue forward should explore options to establish international co-operation on developing standards on energy efficiency. In this context it should be noted that (i) at present no internationally applicable standards on energy efficiency exist, (ii) the TBT Agreement does not specify what constitutes a “relevant international standard” or what international standard-setting bodies or organisations are regarded as the legitimate international fora for the elaboration of energy efficiency standards. Against this background it is conceivable that Parties to the UNFCCC or the Kyoto Protocol could go ahead and launch a multilateral process aimed at elaborating energy efficiency standards, which in turn would be recognised as “international standards” under Article 2.5 TBT Agreement.\(^{22}\)

To conclude, if at all, energy efficiency standards relating to products might come into conflict with the “necessary”-clause in Article 2.2 TBT Agreement. However, if energy efficiency standards are prepared and adopted in a transparent process, which includes an evaluation of alternatives and clearly sets out the motivation for the adoption of a particular standard, and further, if a standard is applied in a non-discriminatory way to imported and domestic products, prospects are good that energy efficiency standards will not be regarded as incompatible with requirements under the TBT Agreement. WTO Members can further reduce remaining uncertainties by establishing a multilateral co-operative process for the elaboration of energy efficiency standards for products and equipment of all kinds in the context of, for instance, the UNFCCC or the Kyoto Protocol.

(3) WTO-compatibility of energy efficiency standards applying to processes: Energy efficiency standards may also give consideration to the energy efficiency of processes and production methods used in

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\(^{21}\) See Article 2.5 TBT Agreement.

\(^{22}\) For a further elaboration of this point see Section IV.
the manufacturing phase of a product (so called PPM-based standards). The adoption of this type of standard might be particularly important, when differences in energy efficiency of processing and production methods across countries result in higher product prices and thus in a competitive disadvantage for producers in countries with higher standards. PPM-based energy efficiency standards would also have to conform to the GATT 1994 and the TBT Agreement (see above Boxes 1 and 2).

**GATT 1994:** Existing case-law on the “like products”-clause in Article III.4 GATT 1994 suggests that otherwise similar products that have been produced with very different levels of energy efficiency will still be regarded as “like products”. That is to say, standards that distinguish between otherwise similar products on the basis of the amount of fossil fuel based energy consumed in the manufacturing process of a product will most likely be qualified as violating the national treatment obligation of Article III GATT 1994.

The question is then, if a PPM-based energy efficiency standard will qualify as an exception under Article XX GATT 1994. Recent case-law suggests that a PPM-based energy efficiency standard would be regarded as provisionally justified under Article XX b) or g) GATT 1994. Furthermore, the Appellate Body and the Implementation Review Panel in the *Shrimp-Turtle* case have both held that even a unilateral PPM-based trade restrictive environmental measure will meet the “chapeau”-requirements of Article XX GATT 1994 if (i) this measure has been adopted after serious efforts in good faith to negotiate an international agreement on the underlying environmental concern, and (ii) if in parallel to the continued application of a unilateral trade measure further good faith efforts are undertaken to solve the trade and environment conflict in a co-operative manner.23

Contrasting these judgements with the reality of international co-operation in the area of climate change we observe that

(i) climate change policy measures serve to address an issue of global concern which – in environmental terms – is far more important than, for example, the protection of a certain species of sea turtles against extinction. Here, PPM based measures passed the WTO test.

(ii) there exists a 10 year history of international “across the board” negotiations to arrive at meaningful international co-operation on the climate change issue24;

(iii) the UNFCCC, and the – yet not in force – Kyoto Protocol oblige industrialised countries to undertake specific policy steps to reduce the human impact on the global climate system. This mandates a reduced use of energy generated from or inherent in fossil fuels.

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The evaluation of such measures is obviously contingent upon the specific case. The measure would have to serve climate protection in that it reduces greenhouse gas emissions through the more efficient use of energy based on fossil fuels, be applied to domestic and foreign products universally and be based on a co-operative effort that enables countries to comply with the measure (for example by defining and/or agreeing best available technologies for certain production processes). But generally it seems fairly safe to conclude that such PPM-based energy efficiency measures that serve to implement emission reduction obligations resulting from a multilateral environmental agreement with almost universal membership stand a good chance of being regarded as in accordance with the “chapeau”-requirements of Article XX GATT 1994. In Section III of this paper we sketch out how remaining uncertainties can be further reduced.

TBT Agreement: As regards the compatibility of PPM-based energy efficiency standards with the TBT Agreement, the legal interpretation remains inconclusive.

On the one hand side, the TBT Agreement allows its Members, when designing technical regulations, to take into account *inter alia* “related processing technology”. The exact meaning of this phrase yet needs to be specified but it seems to indicate that technical regulations which refer to the energy efficiency of production processes are not *per se* prohibited under the TBT Agreement.

On the other hand side, the definition of “technical regulation” given in Nr. 1 Annex I TBT Agreement 25 points to a more narrow understanding of the potential scope for PPM-based standards under this agreement. The wording “product characteristics or *their related* processes and production methods” is generally used to only allow for consideration of PPMs that could have a direct effect on the quality or final characteristics of a product. Since the energy efficiency of a production process is not reflected in the characteristics of the final product, PPM-based energy efficiency standards would thus be outside the scope of the definition of a technical regulation under the TBT Agreement. The legal consequences flowing from this are unclear: one could argue that the WTO-compatibility of an energy efficiency standard which does not fall under the TBT Agreement’s definition of “technical regulation” would have to be judged solely by the GATT 1994. On the other hand side, one could argue that the TBT Agreement once and for all defines the possible scope for technical regulations and would thus prohibit the use of PPM-based energy efficiency standards.

To conclude, while PPM-based energy efficiency standards appear to be permissible under the GATT 1994, their use might *per se* be prohibited under the TBT Agreement, but a legal analysis remains inconclusive.

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25 The term technical regulation is defined as a “Document which lays down product characteristics or their related processes and production methods… It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.” (emphasis added).
b) Eco-labelling on the Carbon or Energy Intensity of Products

(1) relevance of eco-labelling on carbon or energy intensity for climate change policies and international trade: Eco-labels serve to inform consumers about the environmental characteristics of products themselves and may also take into account the environmental performance of a product over its entire life-cycle. Depending on consumer education and preferences eco-labels may be an effective tool to promote environmental policy objectives such as climate change. Eco-labels could identify the energy or carbon “content” of products (their process related climate change relevance), the extent to which methane emissions have been avoided in the production process or whether products contain or have been produced with the help of so-called F-Gases such as HFCs.

If, due to credible eco-labelling, consumers buy more products that are less harmful to the global environment, large retail chains will respond and current patterns of international trade will be affected. Producers in other countries whose products do not qualify for energy efficiency label or who feel that they are effectively excluded from obtaining such eco-labels for their products will suffer economic setbacks and their governments will start to explore their chances of challenging energy related eco-labelling schemes under WTO law.

(2) WTO-compatibility of eco-labelling on carbon or energy intensity: From the perspective of international trade law a basic distinction needs to be drawn between governmental and non-governmental eco-labelling schemes. Purely voluntary, non-governmental labelling schemes do not fall under the disciplines of the multi-lateral trading system at all. Therefore, the following considerations only relate to governmental eco-labelling schemes, i.e. mandatory or voluntary eco-labelling schemes that are administered and enforced with some kind of governmental authority.

Furthermore we note that, despite the objective of eco-labels to support environmentally friendly products and to increase their market share, imported and consumed – eco-labels in general, are less trade restrictive means than other trade measures such as mandatory energy efficiency standards or outright import bans. At the same time, though, eco-labels may also be less effective instruments to achieve specific environmental policy objectives.

To be WTO-compatible, mandatory or voluntary governmental eco-labelling schemes have to be in conformity with both the GATT 1994 and the TBT Agreement.26

GATT 1994: Regarding the compatibility of eco-labelling schemes with provisions of the GATT 1994, essentially the same considerations as for energy efficiency standards apply:

– Eco-labelling schemes which are based on the energy performance of products themselves could come in conflict with the “like products”-clause in Article III.4 GATT, but would most likely qualify as an exception under Article XX GATT. Considering that eco-labels in general are of a less trade-

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restrictive character than mandatory energy efficiency standards, they are more likely to be regarded as GATT-compatible than the latter.

– Eco-labelling schemes which take into consideration the non-product related environmental impacts of products would most likely be regarded as violating Article III GATT 1994. Recent case-law suggests that this type of eco-labelling schemes might qualify as an exception under Article XX GATT 1994 if governments can clearly establish that they serve to implement their international emission reduction commitments under the UNFCCC and the – not yet in force – Kyoto Protocol.

**TBT Agreement**: Legal requirements of the TBT Agreement on the design and application of mandatory or voluntary governmental eco-labelling schemes are in large parts the same applying to mandatory energy efficiency standards.

– Eco-labelling schemes referring to the energy efficiency of products themselves will be compatible with the TBT Agreement under the condition that such schemes operate in a non-discriminatory way and that the processes to apply for and receive a label are accessible and transparent.

– Eco-labelling schemes which take into consideration the non-product related environmental impacts of products might per se be prohibited under the TBT Agreement, although the legal analysis remains inconclusive.

To conclude, while product-related energy labelling schemes can be designed and applied in conformity with GATT 1994 and the TBT Agreement, eco-labelling schemes based on the non-product related environmental impact of products will likely be challenged as violating obligations of WTO Members under the TBT Agreement.

If governments consider it important to include PPM-based labelling schemes in their portfolio of climate change measures, various strategies to pursue this goal are conceivable:

– Parties to the UNFCCC or the Kyoto Protocol could seek to negotiate a multilateral agreement which sets out minimum procedural and substantive requirements on PPM-based energy labelling schemes. The relevance of such an agreement vis à vis the GATT 1994 and the TBT Agreement is further discussed in Section III.

– The negotiation of bilateral, regional or multilateral rules on mutual recognition of eco-labelling schemes and the equivalence of criteria used would greatly reduce trade frictions resulting from such schemes by facilitating the access of producers and their products to obtain eco-labels. This type of initiative would be particularly beneficial to producers in developing countries.

– In case that inter-governmental co-operation on these issues can not be achieved, it is important to recall the distinction between voluntary non-governmental labelling schemes on the one hand side and governmental labelling schemes on the other. As we said above, the TBT Agreement does not apply to non-governmental voluntary eco-labelling schemes. Governments could therefore contemplate to “privatise” eco-labelling schemes that will otherwise be regarded as WTO-incompatible. Ef-
forts in this direction might strategically be used to generate the political willingness necessary for successful inter-governmental co-operation on these issues, whether in the form of a multilateral agreement on PPM-based energy labelling criteria or in form of a clarification of the relevant provisions of the TBT Agreement.

c) Public Procurement of Climate Friendly Products and Services

(1) relevance of climate change related public procurement programmes for climate change policies and international trade: In industrialised countries government procurement of products and services accounts for about 10 to 15 percent of GDP. Considering this immense market impact, public procurement programmes which aim to channel public investments into the establishment of markets for climate friendly products and services clearly constitute one of the most important policy instruments available to governments to reduce greenhouse gas emissions. If, for instance, government agencies would decide to buy only electricity from renewable energy sources this would have an immense impact on the market for renewable energy. Other examples for climate change related procurement programmes may include the purchase of highly energy efficient office equipment, the purchase of vehicles with low fuel consumption for the public fleet, high insulation requirements for all public buildings. If government procurement decisions increasingly take into account climate change objectives, markets will be altered and patterns of international trade in products and services will be affected. Governments of other countries that fear competitive disadvantages for their domestic producers and service providers might go ahead and challenge a climate change related procurement programme under WTO law.

(2) WTO-compatibility of climate change related public procurement programmes:

The GATT 1994 does not apply to government procurement. However, from the perspective of international trade law, the pursuit of public policy objectives through public procurement decisions carries the danger of purposeful or hidden discrimination between foreign and domestic suppliers and is thus feared to create distortions in international trade. Against this background the Agreement on Government Procurement 1994 (AGP) sets out minimum substantive and procedural requirements to ensure that procurement decisions are taken on a non-discriminatory basis (see Box 3).

The AGP is one of the plurilateral WTO-agreements that is based on the principle of strict reciprocity. This is to say, WTO Parties are not required to join the AGP as a precondition to WTO Membership. Furthermore, the AGP at present has only limited scope and coverage. Its disciplines apply between particular Parties, and to specified procuring entities listed in Annexes to the AGP, and only to pro-


28 There are currently 28 Parties to the AGP, namely Austria, Belgium, Canada, Denmark, European Communities, Finland, France, Germany, Greece, Hong Kong China, Iceland, Ireland, Israel, Italy, Japan, Korea, Liechtenstein, Luxembourg, Netherlands, Netherlands with respect to Aruba, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, United Kingdom, United States. The following countries are presently negotiating their accession to the AGP: Bulgaria, Estonia, Jordan, Kyrgyz Republic, Latvia, Panama.

29 Upon accession to the AGP a Party can restrict its application to other particular AGP-Parties (see Article XXIV.11).
curement activities that exceed certain contract value thresholds.\textsuperscript{30} For central government purchases, for example, these thresholds are currently set at 130,000 SDR for the procurement of goods and services, and at 5,000,000 SDR for construction services.\textsuperscript{31}

If the AGP is applicable in a specific case, it requires Parties to the Agreement (i) to give the products, services and suppliers of any other Party treatment “no less favourable” than they give to their domestic products, services and suppliers, and (ii) not to discriminate among goods, services and suppliers of other Parties. Furthermore, each Party is required to ensure that its entities do not treat a locally-established supplier less favourably than another locally-established supplier on the basis of degree of foreign affiliation or ownership and do not discriminate against a locally-established supplier on the basis of country of production of the good or service being supplied. To ensure an effective application of the substantive obligations under the AGP, further provisions of the agreement lay heavy emphasis on procedures providing for openness, transparency and non-discrimination of procurement practices.

**Box 3: Relevant requirements of the Agreement on Government Procurement**

<table>
<thead>
<tr>
<th>Article III – National Treatment and Non-discrimination</th>
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<tr>
<td><strong>Article III.1</strong> requires that with respect to all procurement decisions each Party shall provide immediately and unconditionally to the products, services, and suppliers of other Parties “treatment no less favourable” than that accorded to domestic products, services and suppliers, and than that accorded to the products, services and suppliers of any other Party.</td>
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<tr>
<td><strong>Article III.2</strong> prohibits discriminative procurement decisions based on the degree of foreign affiliation or ownership of locally-established suppliers, and based on the country of production of the good or service which is supplied by a locally established supplier.</td>
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<th>Article VI – Technical Specifications</th>
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<td><strong>Article VI.1</strong> stipulates that Technical Specifications laying down the characteristics of the products or services to be procured, such as quality, performance, marking and labelling, or the processes and methods for their production shall not be prepared, adopted or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade.</td>
</tr>
<tr>
<td><strong>Article VI.2</strong> expresses a preference for Technical Specifications that are based on a) performance requirements rather than design or descriptive characteristics, and b) on international standards where such exist, otherwise on national technical regulations, recognised national standards or building codes.</td>
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<tr>
<th>Article XIII – Submission, Receipt and Opening of Tenders, Awarding of Contracts</th>
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<tr>
<td><strong>Article XIII.4 b)</strong> requires Parties to make the award to either the lowest tender or the tender – which in terms of the specific evaluation criteria – is determined to be the most advantageous.</td>
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<tr>
<th>Article XXIII.2 – Exceptions to the Agreement</th>
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<tr>
<td>Nothing in the AGP shall be construed to prevent a Party from imposing or enforcing measures necessary to protect <em>inter alia</em> human, animal or plant life or health, 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.</td>
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<tr>
<th>Other Provisions</th>
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<tr>
<td>Articles VII to XVI set out detailed procedural requirements relating to transparency and openness of tendering procedures to ensure an effective application of the substantive obligations under the AGP.</td>
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</table>

\textsuperscript{30} Article I.4 and Appendix I AGP.

\textsuperscript{31} “SDR” (= Special Drawing Right) is the unit of account of the International Monetary Fund. The value of one “SDR” is determined daily on the basis of a basket of four currencies (US$, Euro, Japanese Yen, Pound Sterling). On 28 June 2001 the value of 1 SDR was 1,247 US$. 

Important for the permissibility of climate change related public procurement programmes under the AGP is the possibility to award a contract not only to the lowest tender but also the “most advantageous” one, in terms of the specific evaluation criteria set forth by the procuring entity. Article VI AGP details the scope for evaluation criteria that may be applied. Following this provision, climate change procurement programmes which take into account the direct energy performance of procured products or services are well within the scope of technical specifications allowed under the AGP.

The situation is more complicated regarding the AGP-compatibility of climate change procurement programmes which also refer to the non-product related climate change impacts of products and services. This would apply for example to the purchasing of electricity made from renewable energy sources. First, it is noteworthy that following Article VI.1 AGP technical specifications used by a procuring entity may make reference to “the processes and methods for production” of a product or service. This provision seems to allow for procurement decisions based on non-product related PPMs. It remains unclear, however, how the wording in Article VI.1 AGP relates to the definitions of “technical regulation” and “standard” provided in the footnotes to Article VI.2 AGP. These definitions are the same as in Annex 1 TBT Agreement, where they are generally understood to allow only for consideration of PPMs that can have a direct effect upon the quality or final characteristics of a product.

Given the apparently contradictory language in this part of the AGP, the question is open whether or not a Panel or the Appellate Body would allow the use of technical specifications based on non-product related PPMs. If this were the case, the scope for climate change related procurement programmes under the AGP would be wide. If, on the other hand side, such procurement programmes would be viewed as violating Article VI AGP, the question then is if they will qualify as an exception under Article XXIII.2 AGP.

The language used in Article XXIII.2 AGP mirrors the wording of the exceptions-clause in Article XX GATT 1994. Although there does not exist any case-law on the interpretation of Article XXIII.2 AGP it seems safe to assume that this provision will be interpreted in parallel to Article XX GATT 1994. We therefore conclude that climate change procurement programmes which are developed and implemented in the context of a multilateral environmental agreement requiring the reduction of greenhouse gas emissions will qualify not violate the AGP even if they include PPM-based technical specifications of products and services to be procured. This implies, for instance, that – even in the absence of any changes to the TBT Agreement – governments are presently allowed to preferably procure goods and services which carry non-governmental voluntary energy labels based on the non-product related climate change impacts of these products and services. Climate change procurement programmes may

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32 In footnotes to Article VI.2 b) AGP, ‘technical regulation’ is defined as “a document which lays down characteristics of a product or a service or their related processes and production methods … with which compliance is mandatory” (emphasis added). The term ‘standard’ is defined as “a document approved by a recognized body, which provides…rules, guidelines or characteristics for products or services or related processes and production methods, with which compliance is not mandatory” (emphasis added).

33 For an extensive discussion on the permissibility of trade related environmental measures based on non-product related PPMs under Article XX GATT 1994 see above.
thus become a powerful tool to strengthen the role of non-governmental voluntary energy labels in the market-place.

To conclude, at present the potential for conflicts between climate change related public procurement programmes and the AGP is very limited. With respect to most procurement decisions the AGP will not be applicable because (i) one of the entities involved in a procurement activity is not Party to this agreement, (ii) a country specific derogation applies, (iii) the procuring entity is not listed in Annex 1 AGP, (iv) the relevant contract value threshold is not reached. In all these cases international trade law does not impose any limitations on the scope or design of climate change related procurement programmes. And even if the AGP applies, there is scope for procurement programmes taking into account both product and non-product related climate change impacts of products and services, if at the same time the transparency, openness and non-discrimination requirements of the AGP are respected.

d) Reduction of Subsidies for Carbon-Intensive Energy Uses and Subsidies for Climate Friendly Investments

(1) relevance of subsidies for climate change policies and international trade: Conservative studies have concluded that energy subsidies amount to approximately US$ 70 to 80 billion in OECD countries’ energy sectors, this includes subsidisation of fossil fuels as such and also subsidies to fossil fuel-based activities.34 These subsidies clearly enable fossil fuels and goods produced and services provided on the basis of artificially low energy prices to penetrate world markets much easier than products and services based on renewable energies and also prevent the spreading of energy efficiency technologies. Reforming or even eliminating some of these subsidies will result in significant reductions of greenhouse gas emissions. If, for instance, in the United States alone, subsidies to fossil fuels were removed, one high estimate is that this would result in an 18 percent reduction of carbon dioxide emissions globally.35 The removal of subsidies to coal and oil is thus one of the most important mechanisms for reduction of greenhouse gas emissions by changing patterns of energy uses and encouraging the development and more widespread application of more energy efficient technologies. The removal of subsidies would also render subsidies for climate friendly investments and other economic instruments such as energy taxes more effective.

Subsidy reform, although it is sensible from both an environmental policy and a public expenditure perspective, is hard to achieve in domestic politics, since the short-term economic hardship imposed on some groups of society will generally cause strong political opposition. Against this background, it is clear that in many cases, instead of a straightforward reduction of existing subsidies, the best that may be achieved is a re-structuring and re-orientation of subsidies to at least reduce their negative environmental impacts. At the same time, the development of new more energy efficient technologies and the

creation of more than niche markets for environmentally friendly energy services will at least initially require the introduction of new subsidies.

International trade implications exist for the removal and reform of subsidies as well as for the introduction of new subsidies for climate friendly investments. Unilateral removal or reform of subsidies will often raise concerns about loss of international competitiveness and employment opportunities in previously subsidised energy sectors. International co-ordination of subsidy removal and reform may therefore be essential to appease domestic stakeholders. The introduction of new subsidy schemes for climate friendly investments in the context of national climate change programmes will likely affect international trade in more energy intensive goods and services.

(2) WTO-compatibility of reducing subsidies to greenhouse gas intensive activities:

The Agreement on Subsidies and Countervailing Measures (SCM) defines a “subsidy” as any financial contribution by a government or public body which confers a benefit to domestic industry, whether this is in the form of income or price support in the sense of Article XVI GATT 1994, in the form of direct transfers of funds or loan guarantees, fiscal incentives such as tax credits, provision of goods or services other than general infrastructure, or direct payments to a funding mechanism. Subsidies may be qualified as incompatible with WTO disciplines if they are granted specifically to an industry or group of industries within a country, linked to exports of domestically produced goods, contingent upon the use of domestic over imported goods, or found to cause ‘adverse effects’ to foreign competitors.

The compatibility of subsidies with the SCM is determined by their status as “prohibited”, “actionable”, or “non-actionable” (see Box 4). As regards the reduction of subsidies, only the provisions relating to prohibited and actionable subsidies are of interest. Some of the subsidies to the energy sector which exist today, may be challenged as “actionable” subsidies under the SCM. In this case, WTO-disciplines on subsidies would in effect support the effective implementation of climate change policies.

From the perspective of climate change policy-making it is important to note, however, that WTO disciplines on subsidies only relate to subsidies that affect the trading interests of other WTO Parties. This is to say, existing subsidy schemes which have negative implications for the global climate but no effects on international trade patterns will not be influenced by neither Article XVI GATT 1994 nor the SCM. It is thus important from both an environmental and an economic perspective to extend international disciplines on subsidies to subsidy schemes which may not affect international trade, but which encourage the consumption of fossil fuels. This could best be achieved by negotiating a protocol on energy subsidies under the climate change regime itself.

In the latter case, the long-standing negotiating history of the WTO-regime in the area of reducing domestic subsidies may actually serve as an example how an internationally co-ordinated reduction of subsidies to fossil fuel based activities could be achieved. In the area of agriculture, for instance, which still

36 Article 1.1 SCM.
37 Articles 2.1, 3.1, and 5 SCM.
is the most highly subsidised economic sector in countries around the globe, the WTO Agreement on Agriculture (AoA) applies a “graduated approach” to subsidies reduction. That is, WTO Parties commit that their subsidies do not exceed certain quantified thresholds. In achieving this threshold, however, Parties are free to choose their domestically appropriate path of subsidy reduction. This approach effectively leaves room for the political flexibility that is necessary when reducing subsidies in domestic political processes. Any such approach should leave room for supporting – over a certain period of time – climate protection technologies of all kinds (see below).

**Box 4: Relevant WTO-disciplines on subsidies**

<table>
<thead>
<tr>
<th>Article</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VI.2</td>
<td>allows a WTO Party to offset or prevent dumping by levying on any dumped product an anti-dumping duty not greater in amount than the margin of dumping in respect of such product.</td>
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<tr>
<td>XVI.4</td>
<td>expressly prohibits to grant either directly or indirectly any form of subsidy on the export of any product other than a primary product which results in the sale of such product for export at a price lower than the comparable price charged for the like product to buyers in domestic markets.</td>
</tr>
<tr>
<td>3</td>
<td>qualifies as “prohibited” a) subsidies that are contingent, in law or in fact, upon expert performance, and b) subsidies that are contingent upon the use of domestic over imported goods.</td>
</tr>
<tr>
<td>5</td>
<td>qualifies as “actionable” subsidies that a) cause injury to the domestic industry of another Member, b) nullify or impair benefits accruing directly or indirectly to other Members under GATT 1994, or c) which cause serious prejudice to the interests of another Member.</td>
</tr>
<tr>
<td>8</td>
<td>qualifies as “non-actionable” a) subsidies which are not specific, or b) subsidies which are specific but meet certain conditions further defined in Article 8.2.</td>
</tr>
<tr>
<td>4, 7, 10 ff</td>
<td>lay down detailed procedures that precede the adoption of countermeasures by a Party whose industry is found to be negatively affected by “prohibited” or “actionable” subsidies of another Party.</td>
</tr>
</tbody>
</table>

(3) **WTO-compatibility of subsidies to support climate-friendly investments:**

Next to reducing environmentally harmful subsidies it is, for environmental and also for political reasons, desirable to allow subsidies that result in a more rapid development, diffusion and employment of climate friendly technologies, and induce changes towards less fossil fuel based consumption patterns.

Regrettably, the SCM’s category of “non-actionable” subsidies seems not wide enough to allow for the range of subsidy schemes that will conceivably be introduced to drive economies around the globe towards more climate friendly patterns of energy generation and consumption. “Non-actionable” subsidies are limited to 75 percent of pre-market research funding and 20 percent one-off payments to industry to adapt to more stringent environmental standards.

The transformation of domestic energy markets, will, if other subsidies are not removed to require many years of financial support measures for the widespread development of renewable energy installations and the marketing of electricity from renewable energy sources.
Energy taxes, which are often viewed as one of the most effective regulatory instruments available to reduce the fossil-fuel dependency of economic activities, constitute another example for the political difficulties created by the SCM’s inflexibility in the area of subsidies to climate friendly investments. If energy taxes are adopted unilaterally, export oriented industries may suffer severe competitive disadvantages in relation to industries in other countries with much lower energy prices. The political acceptance of energy taxes will therefore depend on tax exemptions for those parts of industry that are particularly vulnerable to international competition. The adjustment of higher domestic energy taxes in the form of border tax adjustments or other tax exemptions contingent upon export performance may, however, be subject to a challenge as “prohibited” subsidy under the SCM and runs the risk of other WTO Parties imposing countervailing duties.

We note that domestic Emissions Trading regimes, or more precisely, the allocation of greenhouse gas trading permits to certain sectors of industry or energy utilities (downstream model) would not qualify as a subsidy and thus not be challengeable under the SCM (see below for discussion).

To conclude, the SCM disciplines relating to the introduction of new subsidies for climate friendly investments are clearly deficient from a climate policy perspective. Against this background it is conceivable that Parties to the UNFCCC or the Kyoto Protocol negotiate common minimum standards on the permissibility of climate friendly subsidies. In the context of energy taxes and border tax adjustment, trade frictions may be reduced by establishing international minimum thresholds for energy taxation and developing methodologies for the calculation of energy costs incorporated into imported products from other countries with lower energy prices. It also seems possible to adopt a stand-still agreement between key Parties to the Kyoto Protocol/WTO promising not to challenge each others subsidies if these incite technical or economic developments supporting the aim of the UNFCCC – to prevent dangerous climate change.

2) WTO-Compatibility of Flexibility Mechanisms

Since the adoption of the Kyoto Protocol much academic research has been devoted to the design and functioning of the Protocols’ three flexibility mechanisms, namely the Clean Development Mechanism (Article 12 Kyoto Protocol) and Joint Implementation (Article 6) as project- and credit-based instruments and Emissions Trading (Article 17) as an allowance based mechanism. Some of this research has asked whether the operation of these mechanisms, in particular Emissions Trading, could conflict with international trade law.

As we have shown above, international trade law sets out disciplines on a wide range of economic activities such as trade in goods or services and, as a special category, financial services, intellectual property

38 Article 3.1 (a) and Annex I lit. c), f), g), h), i) SCM.
39 For a further discussion on this see Section III.
rights, government procurement and subsidies. Some of these disciplines will be relevant or might conflict with the implementation of the Kyoto Protocol’s flexibility mechanisms. For instance, to secure compliance with the Protocol, Parties might contemplate to exclude non-Parties from direct and indirect participation in the operations of the flexibility mechanisms because private entities from non-Parties might be under no domestic constraints to comply with international or national standards in this field.

\( a \) \textit{Emissions Trading}

The basic feature of Emissions Trading, as foreseen by the Kyoto Protocol, is an exchange of emission rights as assigned by the international environmental agreement between states. Through the Kyoto Protocol states are being allocated an emissions “budget” (so called “assigned amount”), parts of which they can sell and buy. Even though the Kyoto Protocol does not explicitly state this, participation of companies and other private entities is clearly desired. It is important to highlight that such private entities engaging in emissions trading are not bound by the Kyoto Protocol since public international law only binds states. Any transboundary exchange of emission permits between private entities therefore has to be mirrored by subtracting and adding an equivalent amount of assigned amount units (AAUs) in the national emissions registries of the Kyoto Parties in which the private entities engaged in the trading of emission permits are based.\textsuperscript{41} This need to parallel private emissions trading with a transfer of AAUs between national emission registries is not only indicated in the most recent negotiation texts\textsuperscript{42} but also a matter of necessity under international law.\textsuperscript{43} – From the perspective of international trade law it is thus useful to distinguish between states and private entities engaging in emissions trading.

(1) WTO-issues raised when states engage in emissions trading: The exchange of AAUs between Parties to the Kyoto Protocol does not create a legal conflict between the WTO as trading between states as such is principally not guided by WTO rules. The sovereign exchange of AAUs would not construct a market but rather represent a reallocation of the overall assigned amount as set out in Annex B of the Kyoto Protocol. However, if a State purchases emission permits of companies based in other countries on the free market, for example to prevent non-compliance at the end of the commitment period, this activity might in principle fall within the scope of the Agreement on Government Procurement. The AGP will only be applicable, though, if the marketing of emission permits could be defined as “services” in the sense of Article 1 AGP. To date purchases of emission permits are not included in the strict reciprocity lists in Annex 4 Appendix 1 to the AGP, which means that AGP-disciplines do not apply.

However, if the State’s decision to purchase emission permits involves using private financial services, the Understanding on Commitments on Financial Services obliges Parties to accord “financial service suppliers of any other Member established in its territory … most-favoured-nation treatment and na-
tional treatment as regards the purchase or acquisition of financial services by public entities of the Member in its territory.” As a precondition, the respective State must have made specific commitments to liberalise its financial service sectors, and these commitments must include services relating to emissions trading. This means that a State would not be able to exclude services from a non-Kyoto Party service provider – unless the exemptions of the GATS apply (see below).

(2) WTO-issues raised when private entities engage in emissions trading: The WTO-compatibility of emissions trading is more difficult when private entities get involved. From a legal perspective, two issues need to be distinguished: the initial allocation of emission permits to firms based in Annex B Kyoto Parties, and the trading of emission permits between private entities including the many services involved in operating the various national and the international emissions trading scheme.

Both the establishment and functioning of Emissions Trading schemes on the national or regional levels as well as the modes of trade between private entities under the domestic emissions trading schemes of different States would be subject to legal scrutiny under WTO law. Such domestic schemes are necessary to enable private entities to participate in the first place, since without a national framework there is no necessity and no incentive for industry and other sectors to trade or reduce emissions. An example of such a scheme is the recent draft EC Directive on Emissions Trading. Under this scheme, EC governments would allocate allowances to private entities (energy sector and other industry) and these entities would be obliged to only emit greenhouse gases to the extent they hold permits or to purchase additional permits from other entities. This is a so-called down-stream model and the further analysis focuses on this regulatory approach as opposed to an upstream model which would allocate permits at the point of extraction of a fuel or to suppliers of such fuels.

Obviously, the exclusion of private entities of non-Kyoto Parties and non-Annex B countries from buying or selling emission permits on the international market is not an area of likely legal challenge. Firms based in these countries will not be subject to emission reduction targets under the Protocol – at least during the first commitment period – and have thus no incentive to acquire permits.

However, private entities from these countries might want to get involved in all other areas of implementing the national and international emissions trading scheme. Since no emissions trading system has ever been tested under WTO law, the first difficulty lies in determining which part of WTO law would govern the trade with emission allowances. Some have for example argued that the plans to restrict trade by means of a quantitative cap on trading could infringe the GATT 1994 (since it would be a quantitative restriction on trade) and/or the General Agreement on Trade in Services (GATS) and in particular

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44 The Kyoto Protocol leaves the choice of national framework open to the Parties. Apart from domestic emissions trading schemes, tax regimes or even voluntary agreements could serve as an entry point to the international emissions trading system. However, most Annex B Parties seem to assume that domestic emissions trading schemes are a precondition for the functioning of emissions trading on the international level.

the GATS Agreement on Financial Services. Furthermore, the initial allocation of emissions allowances might come into conflict with the GATS or the SCM.

**GATT 1994:** It seems to be consensus amongst legal experts that emission permits can not be regarded as “goods” or “products” and thus will not be covered by the GATT 1994. Emission permits can rather be compared to currencies and other financial instruments which have never been regarded as covered by the GATT disciplines.

**GATS and GATS Agreement on Financial Services:** It is less clear, however, whether trade with emission permits would be covered by the GATS. The initial allocation of emission permits to legal entities is at best a government service and would thus be exempt from the GATS altogether.

Thus, only the trading of emission permits between private entities could be relevant to the GATS. The trading of emission permits might, in principle, be regarded as “service” in the sense of Article I GATS. In this case a quantitative restriction on emissions trading or other service activities related to emissions trading (e.g. brokers, etc.) might infringe the Agreement on Financial Services under GATS or the GATS itself. However, apart from quantitative restrictions, states have room to regulate the emerging emissions trading sector – for example to ensure quality and integrity of service providers – if the criteria used in the domestic regulatory frameworks are objective and do not discriminate between service providers based on nationality.

**Box 5: Relevant provisions of the General Agreement on Trade in Services**

<table>
<thead>
<tr>
<th>Article II – Most Favoured Nation Treatment</th>
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<tbody>
<tr>
<td><strong>Article II.1</strong> obliges Members to accord immediately and unconditionally to services and service suppliers of any other Members treatment no less favourable than that it accords to like services and service suppliers of any other country.</td>
</tr>
<tr>
<td><strong>Article II.2</strong> allows a Member to maintain a measure inconsistent with Article II.1 GATS if that measure is listed in an Annex on Article II Exemptions.</td>
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<table>
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<tr>
<th>Article VI – Domestic Regulation</th>
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<tr>
<td><strong>Article VI.1</strong> obliges Members to ensure that in services sectors where specific commitments are undertaken, each Member administers all measures of general application affecting trade in services in a reasonable, objective and impartial manner.</td>
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<tr>
<th>Article XIV – General Exceptions</th>
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<tr>
<td>Nothing in the GATS shall be construed to prevent Members to take measures which are <em>inter alia</em> necessary to protect human, animal or plant life or health, provided that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where like conditions prevail, or a disguised restriction on international trade.</td>
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<tr>
<th>Article XVI – Market Access</th>
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<tbody>
<tr>
<td>Article XVI GATS stipulates that each Member shall accord services and service suppliers of any other Member treatment no less favourable than that provided for under the terms, limitations and conditions agreed and specified in its Schedules of Specific Commitments.</td>
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<table>
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<tr>
<th>Article XX – Schedules of Specific Commitments</th>
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<tbody>
<tr>
<td>Article XX provides that specific liberalisation commitments which GATS Members undertakes in their services sectors will be listed in so called Schedules of Specific Commitments.</td>
</tr>
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</table>
Also, even if any activity would fall under GATS, any measure could be justified by Article XIV GATS. In our view, this provision would be interpreted by WTO Panels in line with Article XX GATT 1994 to encompass measures taken to protect the global commons, or, more specifically, to implement a global agreement for the protection of the global climate such as the Kyoto Protocol. This provision leaves room for States to differentiate between countries where “like conditions” do not prevail. A criterion for differentiation could be the participation in the Kyoto Protocol. Furthermore, Werksman has shown that, as long as a government would not prohibit trading as such but only place restrictions on the acceptance of emission permits in the framework of its national system, it would most probably comply with GATS-disciplines.\footnote{See Werksman in RECIEL, note 40 p. 6ff.} Should a State need to restrict sales of permits from its territory to ensure compliance at the end of a Kyoto commitment period, such a prohibition would apply to all service providers and thus not infringe the GATS or its Annexes. In any case, the Article XIV GATS exemption would apply.

Overall, it seems unlikely that discrimination regarding the trading of emission permits in international markets will occur. The likely actors are mostly global players and the connections between these entities would be difficult to disentangle. Moreover, it might be desirable for Kyoto Parties to involve entities from non-Kyoto Parties to increase the understanding and support for the Protocol in the respective country.

**SCM:** As we mentioned above, there is some speculation that the initial allocation of emission permits to private entities at the national level could be regarded as a specific subsidy in the sense of the SCM and thus be deemed “actionable” and possibly subject to countervailing measures of non-Kyoto Parties. It can be said with some confidence, though, that such speculations are unfounded. A close reading of the SCM’s provisions does not support such assessment: the allocation of emission permits can neither be regarded as a “financial contribution” nor as an “income or price support”. Furthermore, the allocation of emission permits to private entities does not confer a “benefit” in the sense of Art 1 SCM agreement, since in practice the allocation of emission permits to private entities will be accompanied by an obligation of these entities to only emit greenhouse gases to the extent permits have been distributed. Emissions Trading systems as envisaged by the EC scheme are cap-and-trade systems – not just trade systems. Thus, the allocation of emission permits corresponds to the obligation to reduce greenhouse gas emissions of a firm.

To conclude, WTO law does not seem to pose a threat to emission trading schemes.

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**b) The Project-Based Mechanisms (CDM, JI)**

While the exact design and structure of the CDM and JI will remain open until the Conference of the Parties to the UNFCCC has specified the details of the Kyoto Protocol, it is clear that the operation of both mechanisms will involve financial flows to Kyoto Parties that might not otherwise occur and will
also involve investment decisions regarding specific projects. Therefore, investment activities and services provided in the context of CDM and JI projects could come into conflict with international rules on trade and investment. Furthermore, Parties to the Kyoto Protocol might contemplate to sanction non-Kyoto Parties for their non-participation, by, for example, only allowing private entities from Kyoto Parties as “operational entities” under the CDM.

Discrimination relevant from the perspective of international rules on trade and investment could occur in the processing of CDM/JI projects themselves, in project-related services such as validation and verification, and in the subsequent trade of emission reduction units generated by those projects. As regards trading of emission reduction units generated by CDM/JI projects, the arguments made above for emissions trading are equally valid. For other aspects, further legal analysis is needed.

WTO law, and in particular the GATS and the Agreement on Trade Related Investment Measures (TRIMs) is only one body of law that could govern these activities, more pertinent are the many bilateral and international investment treaties.

GATS: As mentioned before, the GATS only sets out detailed standards for services listed in the agreement itself. However, the Most Favoured Nation clause in Article II GATS is applicable to all services unless the relevant sector is included in the Annex on Article II exemptions. The services needed for the development and implementation of CDM/JI projects, such as consultancy, environmental auditing, legal services and accountancy, are thus in principle covered by the general obligation to afford the same treatment to service providers from all WTO countries. This could prevent Kyoto Parties from excluding private entities non-Kyoto Parties from providing services related to the processing, verification and auditing of CDM/JI projects.

Against this background it has to be noted that for the effective functioning and environmental integrity of the Kyoto Protocol, it is likely that the regulations for both JI and the CDM will only recognise emission reduction units as valid if they have been generated by and with the aid of private entities that are accredited as CDM/JI service providers either internationally or by national agencies of Kyoto Parties. The criteria applied for accreditation will seek to secure compliance with agreed performance standards, the aims and integrity of the project based mechanisms and the Kyoto Protocol itself. In practice, Kyoto States and the international bodies overseeing JI/CDM-operations will have discretion to effectively exclude certain private entities from conducting CDM and JI business.

It is difficult to envisage why Kyoto Parties should seek to exclude service providers from non-Kyoto Parties from participating in the project based mechanisms. However, if they deem such exclusion essential to ensure the environmental integrity of the mechanisms, this might violate the Most Favoured Nations obligation of the GATS. In this case, a WTO dispute settlement panel would be faced with a direct conflict between a mechanism designed by a multilateral environmental agreement and WTO law. This special situation could be taken into account either in the application and interpretation of the provisions of the GATS or by refusing to adjudicate in general since the rules and procedures for the CDM and JI have been designed and are under the supervision of the climate regime.
TRIMs: The TRIMS agreement is not likely to be applicable at all since any disputes with regards to CDM or JI projects would concern services (i.e. GATS) rather than “investment measures related to trade in goods” (Article 1 TRIMS).

Bilateral and international investment treaties: It is beyond the scope of this paper to highlight the potential conflicts that could arise from CDM and JI projects and bilateral or international investment treaties\(^\text{47}\), but it is worth to highlight that the more detailed rules are agreed on how to implement the JI and the CDM and on the applicable law in case of a dispute, the lower will be the potential for conflict between rules governing CDM/JI-operations and rules enshrined in bilateral and international investment treaties. As we show in the ensuing section, both the application and interpretation of international trade law as well as of bilateral and international rules on investment will be influenced by decisions and practices in the framework of the UNFCCC/Kyoto Protocol.

III. International Co-operation and the WTO-Compatibility of Climate Change Policies

The previous section has shown that while most climate change policy measures should raise no concerns under the WTO Agreements, some uncertainties and incompatibilities exist. In this section we argue that efforts of states to co-operate on climate protection, whether successful or failed, will influence the application and interpretation of international trade law and narrow down these uncertainties and incompatibilities for the benefit of climate change policy measures of all kinds. In the course of our argument we also suggest some concrete steps and international fora available for co-operation initiatives. Some of these ideas will relate back to the points already made in Section I.

1) Co-operation in the Area of Climate Change Policies and International Trade

Co-operation between States is at the very core of international law, which rests to a large degree on the consensus principle. Agreements and rules flowing from such co-operation are crucial in determining the compatibility of any climate policy measure with international trade law. As the Appellate Body of the WTO and the Review Panel have expressed in the Shrimp-Turtle case, trade restrictive environmental measures – including PPM-based measures – can be justified under the provisions of the GATT if such measures have been agreed and negotiated on a multilateral basis and are therefore not an expression of unilateralism. Furthermore, unilateral measures might be acceptable if they are adopted after serious and substantial efforts to reach an international agreement with states whose rights under the WTO will be affected by an environmental policy measure and if further co-operative efforts are pur-

\(^{47}\) For a comprehensive analysis of interactions between the CDM and investment rules see Werksman, Baumert, and Dubash, Will international investment rules obstruct climate protection policies? WRI Climate Notes, April 2001.
sued to reach agreement.\textsuperscript{48} In short: the reality of international co-operation as enshrined in the many international environmental agreements outside of the WTO can serve as justification for environmental measures affecting international trade.

On the other side of the coin, international law defines positive co-operation duties, which specify the minimum standard of co-operation that has to be fulfilled before trade restrictive effects of environmental policy measures will be justified. Some of these co-operation duties have the status of customary international law. They were originally derived from the necessary co-operation between multiple users of shared or common resources such as the waters of international rivers. In a way, the atmosphere can be called a common resource as well. These duties are mostly procedural in nature and include warning, information and consultation elements. But there is also an emerging rule of international law which obliges States to co-operate positively to tackle problems for which unilateral and uncoordinated approaches would not prove successful, as is the case for the protection of the global climate. So while States remain free in principle to participate in international treaties (principle of sovereignty), there is a certain duty to find common solutions for common problems (the minimum co-operation threshold).\textsuperscript{49}

Box 6 provides an overview of selected co-operation duties that apply to the nexus between international trade law and climate change policy measures.

\textbf{Box 6: Co-operation duties between international trade and climate change (selection)}

\textbf{Article 1 UN Charter} defines as one major aim of the UN

“to achieve international co-operation in solving international problems (…)”

\textbf{Principle 7 Rio Declaration} (further developing the preamble of the 1972 Stockholm Declaration)

“States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. (…)”

\textbf{Art. 3 UNFCCC} (Principles) stipulates that

“1. … Parties should protect the climate system in accordance … in accordance with their common but differentiated responsibilities and respective capabilities.”

“3. … Efforts to address climate change may be carried out cooperatively by interested Parties.”

“5. The Parties should cooperate to promote a supportive and open international economic system…. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.”

\textbf{Art. 4.1 UNFCCC} on commitments obliges all Parties to

“(c) Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases … in all relevant sectors…”

\textbf{Art. 4.2 UNFCCC} on specific commitments requires

“(e) all Parties to “(i) Coordinate as appropriate with other such Parties, relevant economic and administrative instruments developed to achieve the objective of the Convention…”;”

\textsuperscript{48} See Appellate Body Report Shrimp Turtle, note 23.

\textsuperscript{49} See Review Panel Shrimp Turtle, note 23.
Article 7.2 UNFCCC attributes to the Conference of the Parties to
(c) Facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change ...

“The Berlin Mandate”50 (approved by all Parties to the UNFCCC) serving as the basis for the negotiation of the Kyoto Protocol stipulates that process shall be guided by:

“[1] (e) The fact that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions;
[1] (g) The need for all Parties to cooperate in good faith and to participate in this process.”

Art. 2 para. 1 (b) Kyoto Protocol stipulates that Parties shall

“1. (b) cooperate with other such Parties to enhance the individual and combined effectiveness of their policies and measures adopted’’. To this end, they “shall take steps to share their experience and exchange information on such policies and measures, including developing ways of improving their comparability, transparency and effectiveness.”

“3 strive to implement policies and measures under this Article in such a way as to minimize adverse effects, including … effects on international trade, and social, environmental and economic impact on other Parties.”

“4. The Conference of the Parties serving as the meeting of the Parties to this Protocol, if it decides that it would be beneficial to coordinate any of the policies and measures in paragraph 1 (a) above, taking into account different national circumstances and potential effects, shall consider ways and means to elaborate the coordination of such policies and measures.”

The Agreement Establishing the World Trade Organization (Preamble) recognises that intergovernmental relations should be “conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world’s resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.” (emphasis added)

2.6 Agreement on Technical Barriers to Trade (TBT) provides:

“With a view to harmonising technical regulation on as wide a basis as possible, Members shall play full part (…) in the preparation by appropriate international standardising bodies of international standards for products for which they either have adopted, or expect to adopt, technical regulation.”51

From these material law provisions and principles flows the conclusion that the international community has agreed on international co-operation as the necessary basis for tackling global climate change. Moreover, in our view, taken together these obligations establish a legal duty on Parties to the UNFCCC to enhance co-operation in order to achieve the goals of the Convention, which is to prevent dangerous climate change. The provisions of the UNFCCC, the Berlin Mandate and Geneva Ministerial Declaration (the latter two being strong indications regarding opinio juris of Parties52) show that all Parties to the UNFCCC acknowledge that the regulatory force of the Convention alone will not be sufficient to achieve its aims. This acknowledgement was the basis for further negotiations. By adopting and ratifying the Kyoto Protocol, Parties could thus satisfy their minimum duty to co-operate, while this is naturally not only possibility for Parties to the UNFCCC to fulfil their legal duty.

It must further be noted that international law and the UNFCCC (Article 3.1) in particular recognise the fact that countries have differentiated duties and responsibilities according to their economic capabilities

50 Decision 1/CP.1, contained in FCCC/CP/1995/7/Add. 1.
51 See also the Decision on proposed understanding on WTO-ISO Standards Information System (Part of the Uruguay Round Agreements), and the subsequent co-operation work between WTO and ISO.
52 Opinio juris is the conviction that a certain behaviour (here the co-operation effort leading to the Kyoto Protocol) is the correct behaviour also in legal terms. This conviction plus the corresponding state practice is, according to the traditional view of public international law, needed to form customary international law.
and historical responsibility for the climate change problem. This means that developing countries are generally called upon to co-operate with the rest of the international community in combating climate change but that their efforts are closely connected to transfers of technology and finances by the industrialised countries (Article 4.7 UNFCCC). The minimum co-operation threshold has thus a different character depending on the category of country involved.

A violation of established co-operation duties could infer international law responses by injured Parties under the law of state responsibility. Thus, states could try to enforce such duties by, for example, taking counter measures outside the WTO regime under general international law. However, in the case of protecting the global commons it is highly questionable whether and in what way retaliation would actually enhance the prospects for an effective response to global problems such as human induced climate change. In our view, such violation will rather provide an additional argument for the justification of a trade restrictive but effective climate change policy measures inside the WTO-regime.

Against this general background the following sections will show how international co-operation efforts between countries are legally relevant in shaping the compatibility of climate change policy measures with international trade law. In Section 1 we have already indicated that there are two ways in which co-operation makes a difference and can help clarify the legal position of countries when developing and implementing climate change policies that might also restrict or distort international trade:

1. **International co-operation can influence the applicability of international trade law**: Co-operation between States can make specific provisions of the WTO-regime or even whole agreements under the WTO non-applicable altogether. That is to say agreements adopted outside the WTO could override the WTO Agreements.

2. **International co-operation can influence the interpretation of international trade law**: International co-operation efforts on climate change policies may not formally override WTO-law but still ensure that environmental considerations established outside of the WTO will be taken into account in the interpretation of WTO-rules. This way, international co-operation may effectively shield climate change policy measures from an invalidation through international trade law.

### 2) Co-operation to Influence the Applicability of International Trade Law

In instances where international trade rules clearly render illegal certain measures to implement climate protection policies, the only way forward is to ensure that the relevant rules of international trade law do not apply to the climate protection measure in question.

This can be achieved in two ways. First, Parties to the WTO could agree on changing or amending some of the provisions of the WTO Agreements following the relevant procedures laid down in the WTO

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53 Counter measures are a kind of “self-help” and are usually unlawful measures which are rendered lawful because they are conducted in response to an unlawful act of another State (“reprisal”). Counter measures may also include measures that are lawful *per se* but “unfriendly” towards the State that has violated international law. In international law this latter type of measures is called “retorsion” (e.g.: restricting access to harbours, suspending loans etc.).
Charter and second, states could co-operate outside of the WTO to establish international rules of law that would prevail over provisions of the WTO Agreements.

**a) Initiatives inside the WTO**

Inside the WTO Regime, different initiatives are conceivable, with different chances of success and different implications for the WTO-compatibility of climate change policies, namely: interpretations, waivers, amendments. Box 7 sums up the conditions and requirements for these initiatives.

**Box 7: Initiatives inside the WTO**

*Interpretations by the Parties:* Article IX.2 of the WTO Agreement provides: “The Ministerial Conference and the General Council shall have the exclusive authority to adopt interpretations of this Agreement and of the Multilateral Trade Agreements by three-fourth majority of its members.”

*Amendments:* Article X of the WTO Agreements requires a special procedure and special voting rules for amendments. The general rule is consensus, and if consensus cannot be reached, a two/thirds majority of the members in the Ministerial Conference plus acceptance by two thirds of the Members is required, unless specific circumstances apply. Amendments only enter into force for Members that accept them. Interpretations must not be used as “hidden” amendments to the WTO Agreements.

*Waivers:* Measures that trade restricting and would otherwise violate WTO law can obtain an official exemption from the application these rules of law (Article IX.3 and IX.4 of the WTO Agreement). In “exceptional circumstances” the Ministerial Conference may decide to waive an obligation imposed on a Member by the WTO Agreements. As the “authoritative interpretations” such a decision must be taken by a three/fourths majority of the Members. This means that 105 WTO Parties have to approve it.

In the case of an authoritative *interpretation* WTO Parties could agree that certain measures implementing climate change agreements or simply pursuing climate change objectives are consistent with the law of the WTO Agreements on trade in goods, services, and the special agreements, such as the TBT Agreement on technical barriers to trade. An example would be for the Parties to agree that a (technical) regulations based on a product’s production process does not violate the principles of Article III GATT (which provides that products have to be treated “no less favourable” than other “like products”). This would solve, with respect to this particular measure, the dispute about whether or not such “PPM”s are allowed under WTO law. It would also provide some fertile ground for collective learning about the practical implications of using PPM-based environmental measures. However, for other relevant agreements such as the plurilateral Agreement on Government Procurement, which is only applicable between certain industrialised country Parties to the WTO, this procedure does not apply.\(^{54}\)

*Waivers* have been granted numerous times in the history of the GATT/WTO, most of them to developing countries. The ones granted to industrialised countries were politically motivated, i.e. the waiver for France and the EU for preferential treatment to Morocco and the waiver to the EC which was meant to enable preferential treatment to countries in the Balkans affected by the Balkan wars. While this shows that “exceptional circumstances” have been mainly political or associated with special development

\(^{54}\) The special arrangements for these agreements is also emphasized in Art. X. 10 WTO Agreement which says that the general amendment rules do not apply to these Agreements either.
needs of Parties, there is no presumption that more broadly based policies could not fit under this term. Thus, if the majority of WTO countries agreed to waive certain obligations this might prove a tractable way to ameliorate some of the conflicts that might arise between international trade law and climate change measures.

*Amendments* require acceptance by Parties and will only take effect for those that accept them. For this reason amendments to the WTO Agreements seem an unlikely option for the purposes of supporting climate change policy measures.

**b) Initiatives outside the WTO**

In international as well as in national law, a certain real life situation might qualify differently under different legal rules. In the case of climate change policy measures, the legality of a measure would have to be evaluated under national, and all applicable international law. The UNFCCC and Kyoto Protocol could (implicitly or explicitly) call for certain measures to be taken by States while such measures might be considered illegal under WTO law. In cases in which different legal rules come to different conclusions about the legality or illegality of a climate policy measures, it is necessary to decide which body of law or which specific provision of an international agreement shall prevail.

The WTO “Dispute Settlement Understanding” (Article 3.2) provides that WTO dispute settlement panels are to apply and interpret existing provisions of international trade law according to the customary rules of interpretation of public international law. This means that WTO panels and the Appellate Body also have to apply most of the rules laid down in the 1969 Vienna Convention on the Law of the Treaties. However, in the case of two conflicting bodies of international law (here the WTO regime and the Climate regime) which are constantly modified or further expanded, the general rules that govern the question of which body of law or which legal provision prevails in a specific case often fail to provide an answer.

This is true in particular for the “*lex posterior*” rule (i.e. the later treaty prevails). The GATT of 1947, for example, was incorporated and slightly modified by the WTO Agreement and the GATT 1994, while the UNFCCC was adopted in 1992, and will be supplemented by the Kyoto Protocol and possibly other legal instruments in the coming years. Under these circumstances the *lex posterior* rule fails to provide a clear answer as it can be argued that any subsequent agreement modifying or amending a

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55 See for example the indicative list of climate change policies and measures provided in Article 2.1 (a) Kyoto Protocol.

56 The Vienna Convention on the Law of the Treaties, 8 ILM 679 (1969), entered into force in 1980 and has 74 Contracting Parties – all of which are major signatories to the Kyoto Protocol and Parties to the UNFCCC. Article 30 Vienna Convention contains the “*lex posterior*” and the “*lex specialis*” rules: In case of collision of provisions of two treaties, the “*lex posterior*” rule gives precedence to the treaty that was adopted at a later stage in time. The “*lex specialis*” rule provides that a treaty specifying principles contained in another more general treaty will prevail over the more general one. The lex specialis rule is applicable in particular for treaties overriding customary international law. It is important to stress that most of the rules explicated in the Vienna Convention are regarded as part of customary international law, i.e. they will apply also in cases in which parties to a conflict arising between international trade and climate change policies have not ratified the Vienna Convention. It is against this background that the ICJ saw “no need to dwell upon the applicability … of the Vienna Convention of 1969...” in its Gabcikovo-Nagymaros judgement of 25 September 1997, [1997] ICJ Rep. 3, para. 46.
complex international legal regime implies that the *lex posterior* rule has to be applied to the legal regime as a whole. Furthermore, as shown in Section II of this paper, in most instances, there will not be a heads-on collision between norms of the international regime on climate change and international trade law, but legal complications will arise from the specific design and practical application of domestic climate policy measures. In such cases conflicts that exist will have to be resolved by interpretation (see below).

However, given the almost universal participation of states in the international regime on climate change (see Box 8) it is also conceivable that specific agreements and protocols to the UNFCCC or the Kyoto Protocol (even if only of regional application) would form *lex specialis* rules to some WTO Agreements. In this context it is important to highlight that the *lex specialis* rule not only applies to the relationship between two international agreements as a whole but also to the potential application of specific provisions of international trade law vis-à-vis other more specific provisions in the growing body of international law on climate change. In fact, this latter application of the *lex specialis* rule would seem more appropriate given the fact that the UNFCCC- as well as the WTO-regime explicitly claim that there should be a mutually supportive relationship between both bodies of international law.

**Box 8: Some Facts on Relevant Status of Membership and Ratification**

- 36 of 39 Kyoto Annex B countries are WTO-members, apart from Monaco, Russian Federation, Ukraine.
- 186 countries have ratified the UNFCCC (as of 7 September 2000). The Convention thus has almost universal membership. WTO-membership, in contrast, stands at 141 (as of 3 June 2001);
- Only 5 countries/regions that are WTO Parties have not ratified the UNFCCC, i.e. Brunei Darussalam, Democratic Republic of Congo, Gabon, Hongkong/China, Macau/China, and Turkey.

An application of the *lex specialis* rule in this latter sense could, for example, occur if the Parties to the UNFCCC or to the Kyoto Protocol would agree on a “Protocol on Investments in Climate Friendly Technologies and Renewable Energies” which would significantly deviate from specific rules embodied in the WTO Subsidies Agreement (SCM), the WTO Agreement on Trade Related Investment Measures (TRIMs), or the Agreement on Government Procurement (AGP). Such protocol could render mandatory the phase-out of specific subsidies particularly harmful to the global climate give explicit (if maybe restricted) recognition to “green” subsidies supporting, for example the construction of renewable energy installations or of new public transport infrastructure. It could explicitly allow for climate friendly public purchasing practices that include PPM-based considerations. And – to gain support from developing countries – it should include strong language on mandatory transfers of technology and know how for climate change-related investments of industrialised country firms in developing countries.

It is also conceivable that Parties to the Kyoto Protocol (once it has entered into force) will go ahead and aim to negotiate an international agreement on binding targets and minimum standards for improvements in energy efficiency of their national economies with the specific intent of complementing or possibly overriding relevant provisions of the GATT 1994 and the TBT Agreement. In this context, Kyoto
Parties should explore under what conditions international energy efficiency standards flowing from co-operation amongst Kyoto Parties would qualify as “international standard” under the TBT Agreement. As we said above, the TBT Agreement does not define what constitutes a “recognised body” entitled to set TBT standards. To us it does not seem far-fetched to assume that Kyoto Parties acting in concert could establish TBT-standards pertaining to energy efficiency standards. Such standards would – via relevant provisions of the TBT Agreement – be of immediate legal significance even to non-Kyoto Parties. Box 9 lists some of the potential initiatives within the climate regime.

**Box 9: Options for co-operation within the climate regime**

The UNFCCC provides Parties with a rich framework to extend their co-operation. However, Parties have not been able to agree on Rules of Procedure so far, and in consequence decisions can only be taken by consensus. Under the Kyoto Protocol Parties can, within their own framework of voting rules (possibly including majority votes), initiate further co-operation. These include:

- A multilateral process according to Art. 2.4 Kyoto Protocol: This would in principle, allow the CoP/MoP to establish a multilateral process to “consider ways and means to elaborate the coordination of … policies and measures.”
- An “ad hoc process” for individual initiatives carried forward by groups of “like-minded” countries: The CoP/MoP has the task to “facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects.” This provision in Article 13.4(d) Kyoto Protocol may be read to constitute the nucleus of a procedural mechanism for resolving competitiveness conflicts between groups of countries that arise from their domestic policies and measures.

For the context of this analysis it needs to be kept in mind, however, that – apart from the special case of the TBT Agreement – any new international agreement, which allows the use of trade distorting or trade restrictive climate change measures, will only create binding obligations between states ratifying this agreement. In consequence, should a legal conflict between such agreement and provisions of the WTO-regime arise, the *lex specialis* rule would only apply between states that are parties to this agreement and at the same time Parties to the WTO. Moreover, to safeguard the trade law integrity of climate change standards coming out of co-operation processes under the Kyoto Protocol there is a need to couple such intra-Kyoto co-operation with extensive consultation with and proposals to co-operate with non-Kyoto Parties to draw them into the regime, by offering, for instance, mutual recognition of standards. Furthermore, such processes in the Kyoto Protocol would gain much credibility if they were coupled with a range of positive measures to facilitate the transfer of new knowledge and technology to developing countries.

At the same time it is important to stress, though, that if such international agreement is in place and serious and substantial efforts are made during its negotiation and implementation to reach out to and co-operate with governments of “climate change laggards”, it would have an influence on the interpretation of international trade law vis à vis trade restrictive climate change policy measures taken by more progressive governments. It is to this latter aspect of interactions between international trade law and climate change policies we turn to now.
3) Co-operation to Influence the Interpretation of International Trade Law

In cases where international trade law does not prohibit a certain climate change measure per se, the compatibility of such measures with trade rules turns on the interpretation of applicable trade law provisions. While governments in their development and implementation of climate change policies have to respect the general framework of rules and procedures set out in international trade law, international trade law just as international law in general leaves extensive room for interpretation when applying certain provisions. In practice, this means that legal terms such as “like products”, “necessary”, “arbitrary or unjustifiable discrimination”, “least trade restrictive”, “international standard” and other legal expressions must be applied to a specific policy measure and a specific legal and political context.

Since the “Shrimp-Turtle” case it is clear that any “serious and substantial efforts” – whether successful or failed – to achieve international co-operation with states potentially affected by negative trade impacts of climate policy measures will be taken into account and weigh heavily when interpreting WTO law. In the “Shrimp-Turtle” case, the WTO Appellate Body ruled that trade related environmental measures to protect sea turtles in the process of shrimp-fishing (here an import ban on shrimp not harvested in a turtle-friendly manner) could, in principle, be justified under the rules of the GATT. But that prior to enacting such unilateral measures there was a duty to engage in “serious, across-the-board negotiations with the objective of concluding bilateral or multilateral agreements for the protection and conservation of sea turtles”.\(^{57}\) In coming to this conclusion the WTO Appellate Body referred to a range of multilateral environmental agreements that express a strong preference for international co-operation to protect the global commons and emphasised the importance of such agreements for the interpretation of international trade law in general. This line of reasoning developed by the Appellate Body in the “Shrimp Turtle” case is not only relevant to the interpretation of the general exemptions clause in Article XX GATT 1994, but also applies to the interpretation of any other WTO-provision that leaves some discretion to states to enact environmental measures that might be trade restrictive.

Although the judges the Appellate Body in the Shrimp Turtle case did not clarify the specific extent to which the US would have needed to show co-operative engagement, the reasoning is clear in that there exists a minimum threshold for co-operation efforts\(^{58}\) of governments before they may resort to unilateral environmental measures for the protection of the global commons that may have a negative impact on international trade. Since the Appellate Body Report in the Shrimp Turtle case the US have made serious and ongoing efforts of the US to negotiate a binding international agreement on the protection of sea-turtles with South-East Asian states. Against this background the – not yet adopted – Review Panel Shrimp Turtle has held that the US’s unilateral import restriction on shrimps from these countries cur-

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57 See Appellate Body Shrimp-Turtle, note 13, para. 166–169. The USA had negotiated an agreement with Caribbean nations providing for effective protection of sea turtles, but not with south-east Asian nations that wanted to export shrimp and shrimp products to the US market.

58 The Appellate Body did not, however, demand that these efforts have to result in an agreement, rather it explicitly criticised the different efforts to reach an agreement when comparing the Caribbean nations and the Asian Nations that brought the case before the WTO Dispute Settlement system.
rently compatible with their obligations under the GATT 1994.\footnote{See footnote 23.} This is to say, in the view of the Re-
view Panel Shrimp Turtle the US is currently satisfying its minimum duties to solve the underlying environ-
mental problem in a co-operative manner.

For the context of measures to address global climate change this minimum threshold for international co-operation efforts is specified by the co-operation duties discussed above. It flows from these duties that countries implementing climate change policies which create distortions to international trade can be justified under international trade law if there exists a multilateral environmental agreement legitimising such actions or if they can demonstrate that previous to the adoption of their climate change policy measures they have tried to comply with their co-operation duties flowing from, for instance, Article 3.3, 3.5 UNFCCC and Article 2.3 Kyoto Protocol, by making serious and substantial effort to achieve international co-operation with less progressive governments about potential ways to minimise the negative trade effects of their climate policies.

Developing this argument further, it is important to stress that the legally required minimum co-operation effort at the trade and climate change-interface not only imposes obligations on more progressive governments but will also serve to judge the behaviour of industrialised countries which seek to avoid any meaningful steps to address the climate change challenge. Viewed from this angle, one would have to ask whether WTO Parties that resist or even obstruct international co-operation on climate change, and thus violate their international obligations to co-operate in this field, lose some of their legitimacy to challenge climate change policy measures adopted by more constructive and progressive governments as WTO-incompatible.\footnote{The legal relevance of this argument was implicitly underlying some considerations in the Report of the Appellate Body in the Shrimp-Turtle case, note 13 (see para. 171 and footnote 174) and has now been made explicit in the Review Panel Shrimp Turtle. With a view to the failure of the US and South East Asian states to successfully conclude a binding regional agreement on the protection of sea turtles, the Panel first observes that “the United States, even though it is a demandeur in this field, may not be held exclusively responsible for the absence of agreement, e.g. by blocking the negotiations, it may also share the responsibility or bear no responsibility at all” (para. 5.78). In turning to the specific negotiation process the Panel then concludes that “The United States cannot be held liable for the fact that a number of other parties in the Kuantan meeting were not in favour of a binding text” (para. 5.83).}

In sum, if progressive governments meet the “minimum co-operation efforts”-threshold, this will shift the line of equilibrium between their WTO obligations and their other obligations resulting from interna-
tional law on climate change in favour of the WTO-compatibility of a climate change policy measure. Governments which violate their international co-operation obligations in the area of climate change may not be able to exercise rights conferred to them under the WTO-regime to an extent which will undermine the effectiveness of climate change policies adopted by more progressive governments to the benefit of the global climate and of humankind as a whole.

Clearly, countries such as the USA will argue that they have already fulfilled their international co-operation duties on climate change by adopting and implementing the UNFCCC. This argument is, however, legally incorrect. The UNFCCC itself sets a standard for further co-operation efforts to achieve its objective. Furthermore, decisions taken within the framework of the UNFCCC, like the Berlin Mandate,
prove that the UNFCCC-Parties themselves are convinced that their co-operation duties are not exhausted by implementing the UNFCCC alone. Therefore, in our view, the position put forward by the US government in its recently published “Climate Change Review – Initial Report”\textsuperscript{61} with regard to international co-operation on climate change falls far short of complying with its minimum co-operation duties under international law since the co-operation envisaged in this report is mainly restricted to research and monitoring activities. This kind of co-operation will not ensure that emissions of greenhouse gases decrease, and that every country carries respective of its capabilities to taking action on climate protection, which is the precondition to achieve the objectives of the UNFCCC.

To sum up the argument: As it is clear that the USA and maybe others will refrain from ratifying the Kyoto Protocol in the short (and maybe medium and long) term, it is crucial to know for participating Parties that their co-operation effort will substantially reduce existing conflicts and uncertainties about potential incompatibilities of their climate change policies vis à vis the body of international trade law. Parties to the UNFCCC which go ahead and bring the Kyoto Protocol into force as planned by the EU and others will comply with their co-operation duties flowing from the UNFCCC, the Berlin Mandate and the Geneva Declaration. If this progressive group of governments – while developing and implementing national climate change programmes – constantly seeks to reach out to more reluctant governments of industrialised countries and to the governments in the developing world, prospects are good that trade distorting or trade restrictive effects of specific measures undertaken to implement their international obligations to reduce greenhouse gas emissions will not be regarded as incompatible with their obligations under the WTO.\textsuperscript{62}

**IV. Main Findings and Conclusions**

The main findings of this paper may be summarised as follows:

1) **Domestic Policies and Measures:**

a) **Energy efficiency standards:** If at all, *energy efficiency standards relating to products* might come into conflict with the “necessary”-clause in Article 2.2 TBT Agreement. However, if energy efficiency standards are prepared and adopted in a transparent process, which includes an evaluation of alternatives and clearly sets out the motivation for the adoption of a particular standard, and further, if a standard is applied in a non-discriminatory way to imported and domestic products, prospects are good that energy efficiency standards relating to products will not be regarded as incompatible with requirements under the TBT Agreement. WTO Members can further reduce remaining uncertainties by establishing a multilateral co-operative process for the elaboration of energy efficiency standards for products and


\textsuperscript{62} Naturally, this reasoning also applies to the developing country parties that have provided a good example and have already ratified the Protocol and the ones that will follow. Any WTO Party that co-operates on climate change in this manner would be able to use this as a strong argument in a pertinent dispute.
equipment of all kinds in the context of, for instance, the UNFCCC or the Kyoto Protocol. The WTO- compatibility of *energy efficiency standards relating to processes and production methods not related to product characteristics* is much more contingent upon the specific case. A standard under this rubric would have to serve climate protection in that it reduces greenhouse gas emissions through the more efficient use of energy based on fossil fuels, be applied to domestic and foreign products universally and be based on a co-operative effort that enables countries to comply with the measure (for example by defining and/or agreeing best available technologies for certain production processes). But generally it seems fairly safe to conclude that PPM-based energy efficiency measures that serve to implement emission reduction obligations resulting from a multilateral environmental agreement with almost universal membership stand a good chance of being regarded as in accordance with the “chapeau”-requirements of Article XX GATT 1994. As regards the compatibility of PPM-based energy efficiency standards with the TBT Agreement, the legal interpretation remains inconclusive.

b) Eco-labelling schemes: Eco-labelling schemes which are *based on the energy performance of products themselves* could come in conflict with the “like products”-clause in Article III.4 GATT, but would most likely qualify as an exception under Article XX GATT. Considering that eco-labels in general are of a less trade-restrictive character than mandatory energy efficiency standards, they are more likely to be regarded as GATT-compatible than the latter. Such schemes will also be compatible with the TBT Agreement under the condition that such schemes operate in a non-discriminatory way and that the processes to apply for and receive a label are accessible and transparent. Eco-labelling schemes *which take into consideration the non-product related environmental impacts of products* would most likely be regarded as violating Article III GATT 1994. Recent case-law suggests that this type of eco-labelling schemes might qualify as an exception under Article XX GATT 1994 if governments can clearly establish that they serve to implement their international emission reduction commitments under the UNFCCC and the – not yet in force – Kyoto Protocol. Such schemes might, however, be *per se* prohibited under the TBT Agreement, although the legal analysis remains inconclusive. To conclude, while product-related energy labelling schemes can be designed and applied in conformity with GATT 1994 and the TBT Agreement, eco-labelling schemes based on the non-product related environmental impact of products will likely be challenged as violating obligations of WTO Members under the TBT Agreement.

c) Climate change procurement programmes: Climate change procurement programmes which are developed and implemented in the context of a multilateral environmental agreement requiring the reduction of greenhouse gas emissions will not violate the AGP even if they include PPM-based technical specifications of products and services to be procured. This implies, for instance, that – even in the absence of any changes to the TBT Agreement – governments are presently allowed to preferably procure goods and services which carry non-governmental voluntary energy labels based on the non-product related climate change impacts of these products and services. Climate change procurement programmes may thus become a powerful tool to strengthen the role of non-governmental voluntary energy labels in the market-place.
d) **Subsidies**: Some of the subsidies to the fossil fuel based energy sector which exist today, may be challenged as “actionable” subsidies under the SCM. In such cases, WTO-disciplines on subsidies would in effect support the effective implementation of climate change policies. However, the SCM does not support the reduction of subsidies which have negative implications for the global climate but no effects on international trade patterns. A reduction of these subsidies would be facilitated by negotiating a protocol on energy subsidies under the climate change regime itself. The regulatory approach of the WTO Agreement on Agriculture might serve as an example for this type of initiative.

SCM disciplines relating to the introduction of new subsidies for climate friendly investments are clearly deficient from a climate policy perspective. Against this background it is conceivable that Parties to the UNFCCC or the Kyoto Protocol negotiate common minimum standards on the permissibility of climate friendly subsidies. In the context of energy taxes and border tax adjustment, trade frictions may be reduced by establishing international minimum thresholds for energy taxation and developing methodologies for the calculation of energy costs incorporated into imported products from other countries with lower energy prices. Alternatively, key Parties to the Kyoto Protocol/WTO could adopt a stand-still agreement, promising not to challenge each others subsidies if these incite technical or economic developments supporting the aim of the UNFCCC.

2) **Flexibility Mechanisms**:

a) **Emissions Trading**: WTO law does not seem to pose a threat to international or domestic emission trading schemes.

b) **Project-based mechanisms (CDM, JI)**: Under the GATS Kyoto Parties are obliged not to discriminate between services providers from different countries and it is difficult to envisage why Kyoto Parties should seek to exclude service providers of non-Kyoto Parties from participating in the project based mechanisms. However, if they deem such exclusion essential to ensure the environmental integrity of the mechanisms, it would violate the GATS' Most Favoured Nations obligation. In this case, a WTO dispute settlement panel would be faced with a direct conflict between a mechanism designed by a multilateral environmental agreement and WTO law. This special situation could be taken into account either in the application and interpretation of the provisions of the GATS or by refusing to adjudicate in general since the rules and procedures for the CDM and JI have been designed and are under the supervision of the climate regime.

3) **International Co-operation and the WTO-compatibility of Climate Change Policies**

Co-operation between States is at the very core of international law, which rests to a large degree on the consensus principle. Agreements and rules flowing from such co-operation are crucial in determining the compatibility of any climate policy measure with international trade law. As the Appellate Body of the WTO and the Review Panel have expressed in the *Shrimp-Turtle* case, trade restrictive environmental measures – including PPM-based measures – can be justified under the provisions of the GATT if such measures have been agreed and negotiated on a multilateral basis and are therefore not an expression of
unilateralism. Furthermore, unilateral measures might be acceptable if they are adopted after serious and substantial efforts to reach an international agreement with states whose rights under the WTO will be affected by an environmental policy measure and if further co-operative efforts are pursued to reach agreement. In short: the reality of international co-operation as enshrined in the many international environmental agreements outside of the WTO can serve as justification for environmental measures affecting international trade. If these general principles are applied to the climate change context the following observation can be made:

a) Beyond the UNFCCC itself Parties have a positive duty to co-operate on the climate change issue. International law in this field effectively establishes a minimum threshold of co-operation efforts governments have to undertake. If progressive governments meet this “minimum co-operation efforts”-threshold, it will shift the line of equilibrium between their WTO obligations and their other obligations resulting from international law on climate change in favour of the WTO-compatibility of a climate change policy measure. Governments which violate their international co-operation obligations in the area of climate change may not be able to exercise rights conferred to them under the WTO-regime to an extent which will undermine the effectiveness of climate change policies adopted by more progressive governments to the benefit of the global climate and of humankind as a whole.

b) International agreements on specific climate change measures flowing from international co-operation between states (whether of a multilateral or regional character) have to be regarded as lex specialis to WTO law and will between Parties to such agreement prevail vis a vis relevant provisions of international trade law. Such agreements will also influence the interpretation of WTO-law vis a vis other countries that abstain from its adoption.

c) In the interpretation of relevant provisions of international trade law, the demonstration of meeting this minimum threshold of co-operation efforts will shift the balance towards the WTO-compatibility of a climate policy measure.

d) Governments which violate their international co-operation obligations in the area of climate change may not be able to exercise rights conferred to them under the WTO-regime to an extent which will undermine the effectiveness of climate change policies adopted by more progressive governments to the benefit of the global climate and of humankind as a whole.

4) Non Party Sanctions

We stated in Section I that climate change policies with potential trade implications could broadly be grouped into three categories, two of which we have assessed in Section II. What remains are trade-sanctions against non-Parties to the Kyoto Protocol. There have been suggestions that joint measures by Parties are necessary to push States that pull out of the international co-operation effort into participating (i.e. into ratification of the Kyoto Protocol) or to force them to comply with the content of the agreement despite not being a Party. This argument is based on provisions in multilateral environmental agreements such as the Montreal Protocol that explicitly allow for such measures. In our view, such
measures, not targeted at achieving the aims of the UNFCCC but simply discriminating against goods or services from non-Kyoto Parties, are very likely not to be compatible with WTO law. Furthermore, in the context of international climate change policies it seems to us that direct trade sanction against non-Parties will not be effective tools to either reduce greenhouse gas emissions or to offset potential competitive disadvantages suffered by participating countries. Rather, the economic effects of measures taken by States willing to act on climate change and that are allowed under WTO law will exert pressure on climate change laggards.

To conclude, the main result of our analysis is that Parties to the UNFCCC should seek to implement their positive duty to co-operate on the climate change issue – by ratifying the Kyoto Protocol and by entering into further co-operative agreements. Doing so will positively influence the application and the interpretation of international trade law and thereby substantially reduce the potential for political and legal conflicts between these two important bodies of international law.

We want to stress that our analysis in no way pre-empts WTO Parties from taking climate change measures without waiting for an international consensus. All we have shown is that co-operative behaviour will close some of the uncertainty gaps in the relationship between climate change measures and international trade law as they exist at present. States that want to protect the global climate by using policy measures that might have some trade restrictive effects are justified under international trade law if previously they have made a serious and substantial effort to reach international agreement on this issue. If such efforts fail, after ten years of international negotiations, it seems to us that a core group of more progressive industrialised countries could legitimately take the lead and start to implement effective domestic climate change programmes that will be hard to challenge under the WTO. Even less so, if this group of countries manages to bring the Kyoto Protocol into force.

At last, international co-operation on climate change policies will best be achieved in an international climate of trust. Improved policy integration across different governmental departments on the climate change issue is a pre-condition for this and will lay the ground for developing further international co-operative agreements on the co-ordination of climate policy measures or on the mutual recognition of, for instance, energy efficiency standards developed in other countries. Presently though, trade and economic ministries of industrialised countries are busy questioning the WTO-compatibility of other countries’ climate change programmes long before details about specific measures have come to the fore. The obstructive effect of such influences on domestic legislative processes is well documented by a range of case studies on environment and international competitiveness. Recent examples under this rubric include: energy efficiency standards proposed in Japan; attacked by European Commission; Eco-tax proposals, containing some element of BTA developed in the US (challenged by the European Commission) and developed by the EC and its Member States (challenged by the US and Japan).
**Matthias Buck** was trained as a professional lawyer and political scientist in Germany, Spain, the US, and UK. He is currently Research Fellow at the Research Unit Environmental Law, Hamburg University (FORUM), Associated Research Fellow with Ecologic, Institute for International and European Environmental Policy in Berlin, and a PhD-Candidate in International Relations, London School of Economics and Political Science. He works on legal and political aspects of international and European environmental policy with a focus on the nexus between trade, investment, and environment.

(contact: m-buck@jura.uni-hamburg.de; tel: +49 40 42838 5652).

**Roda Verheyen** obtained her law degrees in Germany, Norway and the UK, and also conducted economic studies. She has worked with the Wuppertal Institute for Climate, Environment and Energy, Institute for Ecology and Politics (Hamburg) and collaborates with her former employer, the Research Unit Environmental Law, Hamburg University (FORUM). She acts as legal and policy consultant for environmental groups such as Friends of the Earth Europe and Germanwatch e.V. Her PhD (University of Hamburg) focuses on climate change damages and international law.

(contact: r-verheyen@jura.uni-hamburg.de; tel: +49 40 42838 5453)

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# List of Abbreviations

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<th>Abbreviation</th>
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<tr>
<td>AoA</td>
<td>WTO Agreement on Agriculture</td>
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<td>AGP</td>
<td>WTO Agreement on Government Procurement</td>
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<td>CDM</td>
<td>Clean Development Mechanism</td>
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<tr>
<td>CITES</td>
<td>Convention on International Trade in Endangered Species</td>
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<td>CoP</td>
<td>Conference of the Parties</td>
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<tr>
<td>CoP/MoP</td>
<td>Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol</td>
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<td>DSU</td>
<td>WTO Dispute Settlement Understanding</td>
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<td>EC</td>
<td>European Communities</td>
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<td>GATS</td>
<td>General Agreement on Trade in Services</td>
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<td>GATT 1994</td>
<td>General Agreement on Tariffs and Trade 1994</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>JI</td>
<td>Joint Implementation</td>
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<tr>
<td>Kyoto Protocol</td>
<td>Kyoto Protocol to the UNFCCC</td>
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<td>PPMs</td>
<td>Processes and Production Methods</td>
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<td>SCM Agreement</td>
<td>WTO Agreement on Subsidies and Countervailing Measures</td>
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<td>TBT-Agreement</td>
<td>WTO Agreement on Technical Barriers to Trade</td>
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<td>TRIMs-Agreement</td>
<td>WTO Agreement on Trade Related Aspects of Investment Measures</td>
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<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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<td>WTO Agreement</td>
<td>Agreement Establishing the World Trade Organization</td>
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