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Karl Steininger\*

# International Trade Regulation and Sustainable Development: An Outlook

*Sustainable development at both the national and the global level is increasingly acknowledged to be dependent upon the international trade system. The WTO Agreements and the continuing discussion in the WTO Committee on Trade and Environment are therefore examined here in the light of principles put forward by the International Institute for Sustainable Development. The current shortcomings in the WTO are analysed and some possible cornerstones for future WTO development indicated.*

Even though the interlinkage between trade and sustainable development is obvious and important, it was acknowledged as such only at the beginning of the 1990s by the world community. Yet it is far from having been effectively addressed, as is indicated by the Uruguay Round Final Act, signed in April 1994. In the process of the Uruguay Round negotiations, in the autumn of 1991 the GATT Working Group on Environmental Measures and International Trade (EMIT) convened for the first time since its initiation in 1971. Together with the Uruguay Round Final Act, the Decision on Trade and Environment was signed in 1994, stating the work programme for a Committee on Trade and Environment (CTE). Acknowledging its importance, initially a Sub-Committee of the WTO Preparatory Committee was formed which held five meetings from May through November 1994, before the Agreement establishing the WTO went into force on January 1st, 1995, when the Committee on Trade and Environment was officially established. The CTE then convened for eight meetings up to April 1996 in preparation for the report to the first WTO Ministerial Conference in December 1996. This conference will review the mandate and tasks of the Committee for its future work. For the further future many expect the next round of trade negotiations to be a "green" one.<sup>1</sup>

In this paper we will first take a step back and consider general principles for the area of trade and sustainable development looking, in particular, at a set of principles which has been developed at the

International Institute for Sustainable Development, Canada. We will then use the perspective of these principles to evaluate the current trade framework and current trade and environment discussions to highlight (a) where the options for sustainable development already are as well as (b) where the most crucial deficiencies are to be addressed.

On the basis of the three key assumptions "need for poverty alleviation," "importance of environmental policies" and that "barriers to trade can create impediments to sustainable development," the International Institute for Sustainable Development (IISD) put forward the following principles to reconcile trade and sustainable development:<sup>2</sup>

- *Efficiency and Cost Internalization.* Efficient resource use is both at the heart of development efforts to combat poverty and reduces the drain on scarce natural resources. Efficient resource use requires that the prices paid accurately reflect full costs. To date, prices often are distorted, be it by unpaid environmental costs and/or trade barriers.
- *Equity.* While inequity and poverty contribute significantly to environmental degradation, particularly in developing countries, trade liberalization, with reduced tariff escalations and investment, is seen as a means of supplying additional resources to developing countries.

\* University of Graz, Austria. This is a revised version of a paper prepared for the EU Conference "European Agriculture at the Crossroads: Competition and Sustainability", at Rethymnon, May 9-12, 1996.

<sup>1</sup> See e.g. K. Raffer: The Impact of the Uruguay Round on Developing Countries, in: F. Breuss (ed.): The World Economy after the Uruguay Round, Service Fachverlag, Vienna 1995, pp. 169-192, here p. 190.

<sup>2</sup> International Institute for Sustainable Development: Principles for Trade and Sustainable Development, Winnipeg 1994.

□ *Environmental Integrity.* As many aspects of the environment have values which cannot be adequately captured by methods of cost internalization (e.g. due to irreversibilities) special conservation measures might be necessary in exception to normal trade rules. They should be enacted within the context of internationally agreed upon criteria.

□ *Subsidiarity.* Subsidiarity assigns priority to the lowest jurisdictional level of action consistent with effectiveness. It also requires an important element of international cooperation. Countries seeking higher environmental standards abroad have the responsibility to seek them multilaterally, which is matched by the obligation of other countries to cooperate in such efforts.

□ *International Cooperation.* The most desirable forms of international cooperation will avoid conflicts. Efforts might include technology sharing, capacity build-up, transfers of resources, debt relief, and an opening of protected markets. When international disputes arise, the procedures for handling them must be capable of addressing the interests of the environment, development and the economy together.

□ *Science and Precaution.* The basis for many necessary decisions can be provided by science. Certain problems, however, will have to be addressed in the face of uncertainty and scientific disagreement. When mistakes may have serious consequences, a precautionary and adaptive approach must be adopted.

□ *Openness.* Openness, i.e. timely, easy and full access to information for all those affected, and public participation in the decision-making process, is essential for the practical implementation of policies, but also to minimize the risk that trade policies be manipulated to favour inefficient producers. While structures for openness are increasingly evident at the national level, there has not been a comparable development for issues of an international nature.

### Efficiency and Cost Internalization

To gain efficiency with respect to the elimination of trade barriers is the focus of the GATT/WTO. Discussions within the Uruguay Round succeeded in a further limitation to trade barriers by (a) the widening of the multilateral trading system: inclusion of services, common regulation of international property, and the general binding nature of special agreements for all WTO-signatories (such as, being most relevant

to our concern, the Agreement on Technical Barriers to Trade (TBT)), and (b) the deepening of the multilateral trading system encompassing the reduction of custom tariffs, changing the tariff structure, increased tariff bindings, and the (partial) success in re-integration of agriculture and in new regulation of trade in textiles.<sup>3</sup>

Efforts to gain efficiency with respect to the use of environmental resources seek to overcome externalities of different geographic scope and accordingly need to be addressed at different jurisdictional levels. Depending on the issue, the task is the responsibility of local agencies, national governments and multilateral or global environmental cooperation of governments (multilateral environmental agreements). The task is not one of the duties of the WTO bodies. However, the framing of cost internalization at each jurisdictional level often raises concerns on either reduced competitiveness or increased trade impediments. The international trade framework needs to accommodate and not hinder development of effective long-term welfare-oriented environmental policy. As the conclusions on how the WTO can accomplish this objective differ according to the geographic scope of the environmental problem, the issue of the WTO accommodating environmental regulation shall be covered below under the heading "subsidiarity".

### Equity

Beyond intergenerational distribution, the equity aspect equally concerns intragenerational issues within and between countries. While international trade has impacts on all of these distributional issues, its most evident and probably strongest effect is on the last one, inter-country equity, which we shall focus on. Links of inter-country transfer between industrialized and developing countries exist in the trade of goods and services, the transfer of technology, investment, and financial support. While financial support is in general declining, the focus remains primarily on market access, but also on investment and technology transfer. Within the recent trade and environment discussion it is often suggested that a shift be made from the "sticks" of import restrictions via product standards or border adjustment measures to the "carrots" of increased technology transfer to developing countries as a means of reducing conflict. In that respect,

<sup>3</sup> For an overview, see R. Senti: Major Topics of the Uruguay Round, in: F. Breuss (ed.), op. cit., pp. 3-20.

technology transfer is covered by the Trade and Environment Committee and its predecessor EMIT.

Of quantitatively much larger importance, however, is market access. Here, the WTO still has quite a way to go. When our concern is with developing and, particularly, least developed countries, we ought to look at two recent agreements that concern the main export categories of these countries, the Agreement on Agriculture and the new Textile Agreement. Senti evaluated the current situation in the following way: "The numerous exception clauses in the Agricultural Agreement together with the obvious effort of the individual WTO countries to maintain the protectionist situation of agriculture will put a big questionmark over the re-integration of trade in agriculture for some time to come" and "The objective of the new Textile Agreement is primarily the abolition of the import quotas. The Agreement reached again contains the possibility of numerous safeguard clauses in the event of market disturbances so that no wide reaching changes are to be reckoned with here."<sup>4</sup>

For many production sectors, measures that restrict market access simultaneously are likely to have negative environmental implications in developing countries. Accordingly, within the Trade and Environment Committee, many delegations put forward that:<sup>5</sup>

"... measures such as tariff escalation, non-tariff barriers and trade-distorting production and export subsidies could have adverse effects on the environment and on sustainable development, particularly in developing countries, by holding back income growth, impeding exports of labour-intensive (potentially more environmentally friendly) goods, and obliging producers to resort to alternative, more environmentally damaging activities, notably intensifying output of natural resource-based products to raise export earnings."

Considering tariff escalation for example, although improvements had been achieved in the Uruguay Round negotiations, the subject remains a serious barrier to market access in a number of key sectors, such as forestry, mining, fisheries and agriculture. This makes developing countries' efforts to diversify exports more difficult, which is regrettable from both a trade and an environmental perspective.

On the other hand, it is crucial to recognize that trade liberalization will benefit the state of the environment only if the necessary environmental policy is in place or is introduced in a parallel and complementary development. Otherwise trade works

to magnify the impacts of environmental policy failings.<sup>6</sup>

A major focus in market access discussion within the CTE is the agricultural sector. It has been maintained that agricultural subsidies (a) use resources that could be used in support of sustainable development and (b) depress international commodity prices, which induces over-exploitation of natural resources, particularly in developing countries which are faced with the need to generate wealth from exports. As it is generally felt that "the multilateral trading system could make a significant contribution to the promotion of more sustainable agricultural production,"<sup>7</sup> it is likely that the environment/sustainability issue will constitute a separate and strong force for the further development of the Agreement on Agriculture both at the Ministerial Meeting in 1996 and within the Agriculture Agreement reform process from 1999 onwards.

Within the CTE it has been evaluated by some countries (e.g. New Zealand) that the Uruguay Round negotiations had achieved modest reductions in export subsidies, but that minimal reductions in internal support and border protection have been reconstituted into high tariff equivalents with, in some cases, only a limited impact on actual protection levels. Substantial reductions are considered by a number of countries to be a priority from a trade and environmental policy perspective. In a March 1996 CTE delegation paper, Argentina proposed that "... the CTE has to be mandated to develop a work programme on the identification of ways ... to reduce/eliminate the environmental damage due to trade restrictions ... in the agricultural sector, as a contribution to future negotiations agreed upon by the WTO Agreement on Agriculture."<sup>8</sup>

As a major group of industrialized countries the

<sup>4</sup> Ibid., pp.16-18; cited from the more dense draft version presented at the November 1994 conference, Vienna.

<sup>5</sup> See World Trade Organization: WTO Trade and Environment Bulletin No.5, October 10, 1995, Geneva, referring to the meeting of the CTE September 12, 1995, p. 3. More generally, trade liberalization had been a key theme at UNCED, with Agenda 21 calling for an expansion of market access in favour of developing countries.

<sup>6</sup> See M. Munasinghe and W. Cruz: Economywide Policies and the Environment. Lessons from Experience, World Bank Environment Paper 10, World Bank, Washington D.C. 1995, for the structure of this link, an empirical approach and case studies; and K. Anderson: The Standard Welfare Economics of Policies Affecting Trade and the Environment, in: K. Anderson and R. Blackhurst (eds.): The Greening of World Trade Issues, Harvester Wheatsheaf, New York 1992 for the determination of the net welfare impact.

<sup>7</sup> World Trade Organization, op.cit., p. 4.

<sup>8</sup> WT/CTE/W/24: Communication from Argentina on item 6 of the Committee's Work Programme, p. 9.

European Union had earlier already started its move to supply a solution in this area with its 1992 agricultural reform to decouple farming income and production levels. The EU enhances the state of the environment by compensating income losses due to output reduction under certain conditions.<sup>9</sup> Within the EU the issue for this regulation is one of cohesion ("rich" countries spend more on environmental subsidies, enlarged by EU financing) and of competition. The regulation is trade exempted;<sup>10</sup> a better evaluation scheme of its environmental impacts is currently being sought.<sup>11</sup> Such an evaluation is not only of internal EU relevance. It has also been noted in the CTE that, until further trade barrier reduction can be negotiated, there "... is a need to monitor the effects on the environment and trade of replacement policies such as subsidies to encourage certain environmentally friendly farming practices, especially the extent to which these were decoupled from production."<sup>12</sup>

On the other hand, a radical decoupling might, contrary to the general belief in the agri-environmental benefits of trade liberalization, worsen the environmental case. Potter<sup>13</sup> points out that the net withdrawal of funds (as direct payments are justified largely in transitional terms) together with the change in agricultural production structure puts the joint product of agriculture at stake: maintenance of habitats and countryside. For the tightening of the WTO "green box measure" criteria, which is expected to be essential for the next WTO round, the Swiss effort to increase the share of ecologically oriented payments while loosening the definition of ecological farming ("integrated farming" which allows the application of fertilizer and chemical inputs within certain limits) is named as an example for the EU (and others) to follow.<sup>14</sup> Parallel to the increase in market access an evolution in environment-directed policy is thus essential.

<sup>9</sup> Council Regulation 2078/92.

<sup>10</sup> See GATT: Uruguay Round Final Act, Agreement on Agriculture, Annex 2, item 12, Marrakesh, April 15, 1994, p. 62.

<sup>11</sup> For an evaluation based on first experience, see F. Brouwer and S. Berkum: CAP and Environment in the European Union, Paper presented to: European Agriculture at the Crossroads: Competition and Sustainability, University of Crete, Rethymnon, May 1996.

<sup>12</sup> See World Trade Organization, *op. cit.*, p. 4.

<sup>13</sup> See C. Potter: Agricultural Liberalisation in Europe: Environmental Loss or Gain?, Paper presented to: European Agriculture at the Crossroads: Competition and Sustainability, University of Crete, Rethymnon, May 1996.

<sup>14</sup> See G. Weinschenck: Changing Environment and Food Security, Paper presented to: European Agriculture at the Crossroads: Competition and Sustainability, University of Crete, Rethymnon, May 1996.

### Environmental Integrity

The issue of environmental integrity concerns environmental problems that cannot be adequately resolved by cost internalization, but only by special conservation measures, that might represent an exemption to normal trade rules, enacted within the context of internationally agreed upon criteria.

One issue that is among those with the longest GATT history in the context of trade and environment is that of exports of domestically prohibited goods (DPGs). The focus is on the treatment of products the sale and use of which are restricted in the domestic market on the grounds that they present a danger to human, animal or plant life or health or the environment, but which nevertheless may be exported to other countries. Concerns in this area were raised in GATT as early as 1982 with the support of a number of developing countries, and they were addressed systematically by a GATT Working Group which in 1991 produced a Draft Decision on Trade in Banned or Severely Restricted Products and Other Hazardous Substances. While no consensus support could be reached at that time, work on this issue was repeatedly done within EMIT and CTE, where most recently the African Group submitted a proposal in the December 1995 meeting towards a possible decision at the Singapore Ministerial Meeting.

The objective with exports of DPGs is to assist importers, especially in developing countries, to make informed decisions about whether to import particular products. Ensuring full transparency of trade in DPGs is seen as an area where the WTO could still make a contribution. This particularly concerns regulations of prior informed consent (PIC). While procedural guidelines and some substances are already covered by other multilateral agreements or fora, like the Basel Convention's ban of exports of hazardous wastes from OECD to non-OECD countries (for final disposal immediately and for recycling and recovery as of January 1998), and negotiations under the London Guidelines on Banned or Severely Restricted Chemicals to make the Prior Informed Consent (PIC) procedures legally-binding, complementary action in the WTO is seen to be relevant as a safety net if reinforcement of rules in other fora was felt to be necessary. For example, if a WTO Member did not participate in a future international PIC convention, goods covered by the PIC procedures and produced in its territory might usefully be covered by the WTO. With respect to other substances, hazardous, toxic, recyclable and disposable wastes, these are being

dealt with in other fora, but further product categories have yet to be satisfactorily treated, including some consumer goods and pharmaceutical products for human and animal use. The current examination within the CTE concerns the question of where responsibility for taking a decision to restrict trade in DPGs should lie – with the exporting country, the importing country, or jointly. The issue also touches technology transfer, as measures may imply technical assistance to help developing countries effectively monitor trade in DPGs.

More generally, exceptions to the general trade rules are covered for goods in GATT Article XX and for services in GATS Article XVI. Whether these exceptions effectively apply to environmental measures is the subject of a longer discussion within GATT, and, actually, the discussion triggered on this issue by the EFTA countries in May 1991 was the reason for finally convening the GATT Working Group on Environmental Measures and International Trade (EMIT), which had already been created in the context of the Stockholm Conference on the Human Environment in 1971.<sup>15</sup> A clarification of this issue is still being sought within the successor CTE, mainly to accommodate – by a collective interpretation of Article XX – trade measures taken pursuant to

multilateral environmental agreements (MEAs). In the October 1995 meeting, for example, the EC previewed a proposal with three options to solve the issue:<sup>16</sup> (a) an additional sub-paragraph in article XX which would explicitly mention MEAs and thus the restrictions of Article XX would apply to those measures, (b) develop an understanding of the same content, but without necessitating ratification, or (c) to amend Article XX(b) so as to cover measures necessary to protect the environment and measures taken pursuant to MEAs. Each of these options strikes a different balance between demand on ratification and degree of explicit mentioning. Following one of them constitutes a necessary change to integrate environmental exceptions into trade rules.

### Subsidiarity

Economic theory implies that any environmental problem needs to be addressed at the jurisdictional level which is most effective. Local and national problems are thus to be addressed by local or national agencies, transboundary problems by multilateral or global effort. The trade issue involved in the former case is one of competitiveness and market access, in the latter one of potential conflict between (trade) measures in MEAs and the international trade framework.

Turning to the compatibility of MEAs and the WTO first, we can point out that only a small number of MEAs include trade provisions to date and none has ever been subject to a challenge under GATT. However, this "... cannot be considered a *de facto* recognition of the WTO compatibility of measures ...,"<sup>17</sup> and the issue represents a main working area

<sup>15</sup> See M. Reiterer: GATT/WTO: Internationaler Handel und Umwelt, in: *Aussenwirtschaft*, No. 49, 1994, pp. 477-494, for the history of and further issues within EMIT.

<sup>16</sup> See World Trade Organization: WTO Trade and Environment Bulletin No. 6, December 8, 1995, Geneva, referring to the CTE meeting of October 26-27, 1995, p. 3.

<sup>17</sup> *Ibid.*, p. 1.

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within the CTE. One possible option would be the ex ante approach to accommodating in the WTO MEA-trade measures by an amendment or new interpretation of Article XX, as stated above. This would avoid any legal hierarchy between MEAs and the WTO, and would acknowledge that the WTO is not an environmental organization. On the other hand, in the definition of the criteria of "necessity", the balance will be difficult to strike between too lax and unduly restricting future environmental agreements. These criteria could concern the geographic scope of an MEA, scientific evidence of the environmental problem, clarification of the environmental objective of the MEA, criteria related to openness and universality of participation in the MEA, whether the MEA represents a genuine international consensus, whether countries at different stages of economic development are parties to it and consideration of dispute settlement.

The alternative approach is no additional interpretation of Article XX as there is the possibility of ex post resort to WTO waiver provisions on a case-by-case basis. From the trade perspective this ensures that in no case would a measure which was not based on broad international consensus escape WTO scrutiny. However, this approach is questioned by e.g. the EC as it "... would set the WTO in a position of judgement on environmental matters."<sup>18</sup>

With respect to multilateral environmental agreements, some general criteria, like the international consensus on the measures, seem to be broadly accepted, and have already been implemented in a range of MEAs that contain trade measures when trade is at the root of the environmental problem (e.g. the Basel Convention).

Where environmental policy at the local or national level is concerned, the picture is more diverse. A longer history of implementation exists. Thus a series of empirical studies have been undertaken on data up to the late 80's to determine the trade impacts of environmental regulation. The broad overall finding of all these studies can be summarized by stating that the effects of environmental regulation on trade patterns have been rather small, if present at all.<sup>19</sup> Where impacts were present, they concerned specific sectoral effects. However, these studies are limited with respect to the determination of environmental

control costs and the time period and disregard benefits.<sup>20</sup> Thus it is obvious that this issue was and is the subject of repeated discussion within the CTE.

The environmental policy options at the local and national level consist of economic instruments (charges, permit systems or subsidies), direct regulation (standards) and consumer-oriented (voluntary) eco-labelling schemes. The first class of instruments is connected to the fear of *domestic* loss of competitiveness, while the remaining two are connected to *foreign* concerns on reduced market access for goods imported.

The potential loss of competitiveness raises the question of adjustment at the border to level the playing field again. Here, GATT rules only discipline the way in which governments may levy internal taxes and charges inasmuch as those measures are applied to traded goods directly. Border tax adjustment is eligible for taxes levied directly on products, such that they can be imposed on imports or rebated on exports. The purpose of the tax (whether environmental or not) does not affect its treatment under GATT rules. However, any taxes that were not levied directly on products are not eligible for border tax adjustment. This is of concern when a country seeks to increase taxes on environmentally sensitive production inputs, such as energy and transportation.

Which environmental policy instrument can be used most effectively by a government is dependent on a range of conditions, including the pre-existing legal framework, political feasibility, monitoring and sanctioning options. In many cases, input taxes may turn out to be superior, and these are then characterized by differential treatment in the event a country wants to use at-the-border adjustment.

For subsidies granted for environmental purposes, in general the same context applies. However, the Uruguay Round Final Act in its Agreement on Subsidies and Countervailing Measures explicitly states that some *input* taxes, particularly energy taxes, can be adjusted at the border.<sup>21</sup> While this option raises the environmental effectiveness, it does reduce a potential disadvantage for exporters of

<sup>18</sup> Ibid., p. 3.

<sup>19</sup> For an overview, see K. Steininger: Trade and Environment. The Regulatory Controversy and a Theoretical and Empirical Assessment of Unilateral Environmental Action, Physica, Heidelberg 1995, pp. 82-85.

<sup>20</sup> For a detailed critique on the first issue, see: J. Tobey: The Impact of Domestic Environmental Policies on International Trade, presented at the Egon Sohmen Conference on: Economic Evolution and Environmental Concerns, Linz 1991; and US Congress: Trade and Environment; Conflicts and Opportunities, OTA-BP-ITE-94, U.S. Government Printing Office, Washington DC 1992; for the second see A. Tadini: Trade and Environment: The Issue of Process and Production Methods, Fondazione ENI Enrico Mattei, Nota di Lavoro 7.93, Milan 1993; and for a summary see K. Steininger, *ibid.*, pp. 85-89.

goods incorporating energy, and thus may ease the introduction of an energy tax. It does apply to exports only; a taxation of imported goods on the basis of their energy content at the border is not covered. Sorsa points out that "... while this eliminates some of the uncertainty related to energy taxes under the old GATT, it may complicate the environment-trade debate in the area of taxation in the future."<sup>22</sup> Within the CTE, discussion has started on a potential elimination or modification of this regulation based on environmental grounds by raising the question "... whether the current trade rules encouraged subsidization of environmentally-harmful products with respect to energy use,"<sup>23</sup> with reference to the objectives of the Framework Convention on Climate Change.

Direct product regulation is covered by the Agreement on Technical Barriers to Trade, which explicitly referred to "environmental measures" earlier than any other sub-agreement within the GATT framework, and before the term "environment" was first mentioned in a GATT-agreement binding for all members in the Uruguay Round Final Act. Conflicts with respect to environmental standards arise on the issue of proportionality between trade restriction and the environmental objective. Within the Sanitary and Phytosanitary Agreement, the reference level of proportionality has ultimately been lowered from "least trade restrictive" to "ensuring that measures are applied only to the extent necessary for the environment".<sup>24</sup> This already points out the area in which Esty<sup>25</sup> concludes international trade and environment regulation can learn from NAFTA experience - in addition to the procedural example of negotiations. NAFTA Article 104 limits the obligation for a country to search for less trade-intrusive environmental policies to those alternatives that are *equally effective* and *reasonably available*.

The problems faced by foreign producers are those of higher costs of participation, inadequate access to

information, inability to participate in product and criteria selection, and lack of transparency. As this particularly has an adverse impact on developing countries' exports, special and differential treatment of developing countries and technical assistance have been suggested, e.g. by Switzerland at the CTE meeting in October 1995. The related issue which has recently been growing in importance is that of eco-labelling, either binding or mostly voluntary, but generally with some level of government involvement. In particular, the effect and compatibility of environmental product requirements are discussed which incorporate life-cycle analysis based on evaluations of unincorporated process and production methods. The concern is repeatedly taken up within the CTE, but more in-depth work is carried out within the International Organization for Standardization (ISO), a federation of national standards bodies from some 100 countries, where Technical Committee 207 on Environment Management covers both eco-labelling and life-cycle analysis.

The ultimate base of conflict is the same for both areas where the WTO does not accommodate border adjustment, input taxes and eco-labelling based on production and process methods including standards relating to life-cycle analysis. The international trade framework only rules on measures applied to goods directly. A reference to either inputs at earlier stages of production, or methods of production, both open a door of great ambiguity of (a) attributing costs to specific products when a firm produces many different kinds of products and of (b) control and the environmental effectiveness of production and process methods.

I have argued earlier,<sup>26</sup> that measures based on physical inventory systems, such as a product life cycle information system, involve high administrative requirements and difficulty in international comparison of physical assimilative capacities, which is why this option seems to be most advisable only for basic production sectors. In light of the slow progress the CTE is making on both issues, a progress that mainly consists of a listing of the problems and in

<sup>21</sup> See GATT: Uruguay Round Final Act: Agreement on Subsidies and Countervailing Measures, Annex II, Footnote 61, Marrakesh April 1994, p. 264: "Inputs consumed in the production process are inputs physically incorporated, energy, fuels and oil used in the production process and catalysts which are consumed in the course of their use to obtain exported products." Thus it was clarified that energy can be considered as physically incorporated in the good, allowing for a tax adjustment at the border.

<sup>22</sup> See P. Sorsa: The New Environmental Protectionism North-South Trade and the Uruguay Round, in: F. Breuss, op. cit., pp. 193-218, here p. 212.

<sup>23</sup> World Trade Organization: WTO Trade and Environment Bulletin No.4, August 14, 1995, p. 5, referring to the CTE meeting of June 1995.

<sup>24</sup> See GATT: Uruguay Round Final Act, Agreement on the Application of Sanitary and Phytosanitary Measures, Article 2.2, Marrakesh, April 1994, p. 70.

<sup>25</sup> See D. Esty: Making Trade and Environment Policies Work Together: Lessons from NAFTA, in: Aussenwirtschaft, No. 49, 1994, pp. 59-80.

<sup>26</sup> K. Steininger: Reconciling Trade and Environment: Towards a Comparative Advantage for Long-term Policy Goals, in: Ecological Economics, No. 9, 1994, pp. 23-42.



contradicting proposals to date, the international community might have to start to look for a completely different venue to approach the objective of trade-consistent measures ensuring environmental improvement.

Let us look at those experiences in environmental policies based on economic incentives that have been most successful in the national context. A major group of them is characterized by basically not only regulating the environmental characteristics of the product itself, but also by supplying an incentive for an improvement in the process and/or capital stock needed for production. The Swedish nitrogen oxides charge, for example, that went into effect in 1992 would have meant difficult and costly monitoring. The solution was to apply the charge only to medium and large-sized combustion plants, but in order to avoid putting smaller plants at an advantage, the revenues were redistributed to the former two classes of firms, obviously not on the basis of emissions but on the basis of energy produced. Companies that had above-average investment in emission reduction even gained from the policy.<sup>27</sup> The successful US lead banking programme<sup>28</sup> involved a time-limitation on permit validity, requiring firms that wanted to benefit from their sale to invest in emission reduction measures within a reasonable time.

One path to investigate would be the application of this experience to the international trade and environment discussion. If monitoring and regulation of product characteristics themselves mean overwhelming administrative demand and costs, why not focus on the improvement of the production facilities and methods instead? For the example of energy, all fossil energy imports to a country could be charged at the border and in exchange a share in an "international environmental investment agency" could be handed out with a nominal value equivalent to the "charge". The individual country could install the same system within its own borders or use the shares differently. Whoever owned the share could either use it to pay for investment in non-fossil-fuel energy generating equipment, the classes of which would be specified by the environmental investment agency, or cash it in at a discount at the environmental investment agency. At the national level the government might allow the use of such shares by firms to pay for social security debt to some degree, and use the revenues thus

collected in the form of shares in turn for public investment in alternative energy sources. Thus the initiative would lie with the individual to search for investments in energy supply other than fossil; only when used for this purpose would the share (and charge) be fully refunded, otherwise at a discount. The system involves an economic incentive for a particular class of expenditures ensuring the enlargement of a country's environmentally sound production facilities. While energy is a clear example of such a system, it may be applicable to other sectors as well, which would, however, need further investigation.

At least for some product or input categories, such a system could help to overcome the dead-lock in the discussion on avoiding trade-impacts due to environmental regulation by shifting the emphasis from goods characteristics to the more easily monitored area of investment into environmentally sound production methods.

#### International Cooperation, Science and Precaution

The fact that environmental issues are discussed in the well-established trade bodies represents the fact of cooperation in itself. Most fruitfully, conflicts could be avoided by sufficient cooperation and information. Otherwise, effective dispute settlement has to apply. As the objectives *sustainable development* and *to protect the environment* are mentioned in the preamble of the WTO agreement, WTO dispute settlement bodies may call upon environmental expertise and consider the environmental perspective. This is only a weak environmental provision, especially when considering that panel findings under the WTO now automatically are adopted unless members by consensus decide otherwise. Current discussion also focuses on how dispute settlements of MEAs and WTO dispute settlement relate to each other. Most MEAs contain provisions for dispute settlement and usually place a special emphasis on avoiding disputes by increasing transparency through provisions which include the collection and exchange of information, coordination of technical and scientific research and general monitoring of measures taken to implement them.

Three cases of potential conflict can occur: a dispute (a) between two MEA parties, (b) between an MEA party and a non-MEA party which is a WTO

<sup>27</sup> See K. Lövgren: Economic Instruments for Air Pollution Control in Sweden, in: G. Klaassen and F. Forsund: Economic Instruments for Air Pollution Control, Kluwer, Dordrecht 1994, pp. 107-121.

<sup>28</sup> See N. Kete: Air Pollution in the United States: A Mixed Portfolio Approach, in: G. Klaassen and F. Forsund, *ibid.*, pp. 122-144.

member, and (c) between two WTO members where no MEA exists for the environmental problem in discussion or where neither is a party to it. For the first case, primarily the need to strengthen dispute settlement mechanisms within MEAs is emphasized. But for case (b) the WTO is seen as a competent forum which highlights the need for environmental expertise in WTO dispute settlement bodies. Norway recently suggested an automatic system to involve environmental experts and MEA bodies, while the US delegation more generally noted that "... the WTO dispute settlement process would benefit if panels, where appropriate sought expert advice on environmental, scientific and technical matters in disputes involving environmental issues and it was essential that the dispute settlement procedures established for that purpose operated effectively."<sup>29</sup> In the same venue the third situation (c) primarily concerns environmental expertise in the dispute settlement body.

### Openness

Transparency is generally acknowledged as a crucial input for the smooth functioning of both trade and environmental agreements. For the trade framework, the EMIT Group already had listed (and the CTE reproduced this list of) 15 areas where there are gaps in existing transparency provisions, including environmental packaging and eco-labelling, waste handling requirements, deposit-refund systems, measures taken pursuant to MEAs and GATT Article XX measures.<sup>30</sup> A group of countries, including Norway and developing countries, foster the establishment of "environmental inquiry points" to supplement current WTO notification measures.<sup>31</sup> In this process it is pointed out that transparency provisions for environmental measures should not be made more onerous than for other measures, and it is cautioned against creating a transparency mechanism based on a measure's policy purpose rather than its functional form. The cost of transparency is acknowledged, especially in the light of the already 200 different WTO notification formats. Nevertheless, an increase in notification requirements for at least some points is likely to represent the cheapest regulation in

its contribution to reduce conflict potential and increase cooperation. Again, transparency to be *ex ante* as a rule receives particular attention.<sup>32</sup>

### Incentive to Refrain

The concern of the environmental perspective with respect to the international trade framework is mainly its potential to impede national environmental regulation. This focus shall therefore be highlighted separately here.

Fear of trade impacts is only one impediment, however. When analyzing why national environmental regulation is implemented slowly and by and large less restrictively than broad scientific consensus would imply, one may classify the reasons into those of

- special interest groups lobbying against the regulation,
- the value system of the public not accommodating stricter public action,
- non-acceptance of the precautionary principle and
- loss of international competitiveness.

Whether the last category is the most important one remains to be analyzed by political scientists. This is very unlikely, however, when compared to the impact of special interest groups for example, who indeed might use the competitiveness reasoning as the "official" argument.

At the macroeconomic level, counterbalancing effects of increased competitiveness in clean industries arise. Theoretical results based on industrial organization's innovation theory are supported by the empirical evidence that measuring the revealed comparative advantage in environmental goods and services industries indeed points out a comparative advantage for countries with stricter environmental regulation.<sup>33</sup> In terms of environmental effectiveness, while a small country's unilateral action is considered to contribute little directly to global environmental improvement, it is simultaneously shown that a small country (and groups thereof) in particular can level the path to broader international action by acting as a first mover in a repeated game of negotiations, by gaining experience with new environmental policy instruments and by acting as an example in the field of

<sup>29</sup> See World Trade Organization, WTO Trade and Environment Bulletin No.3, May 22, 1995, p. 5, referring to the CTE meeting of April 6, 1995.

<sup>30</sup> *Ibid.*, Annex.

<sup>31</sup> See World Trade Organization, WTO Trade and Environment Bulletin No. 7, January 22, 1996, p. 1, referring to the CTE meeting of December 14, 1995.

<sup>32</sup> See World Trade Organization, Committee on Trade and Environment, Report of the meeting held on 25 and 26 March 1996, Geneva, 11 April 1996, p. 2.

<sup>33</sup> See K. Steininger: Trade and Environment. The Regulatory Controversy..., *op. cit.*, pp. 97-104.

international diplomacy.<sup>34</sup> As is stated in these studies, however, this does not change the fact that certain sectors may be hit severely by unilateral environmental action.

A qualitative approach shall be used to illustrate the degree to which countries are restricted from mitigating the loss of competitiveness effect due to WTO membership. It is different for each of the environmental policy instruments: environmental tax on final goods, energy tax, other input tax, subsidy, eco-labelling and MEA trade measures. Figure 1 depicts such an evaluation, full columns referring to current WTO regulation and striped columns referring to likely future development in view of the discussions in the WTO Committee on Trade and Environment

For environmental taxes levied on final goods, border tax adjustment is eligible, for energy taxes only a subsidization of exports is eligible and for other input taxes no at-the-border adjustment is eligible. Accordingly, for subsidies, whether or not they are eligible for counterbalancing at the border depends on for which of the three areas of regulation mentioned above they are granted. In Figure 1 only an average value is depicted. National independence in the introduction of eco-labelling schemes and MEA trade measures is likely to be restricted in future WTO negotiations, but on the same grounds the general option is very likely to prevail.

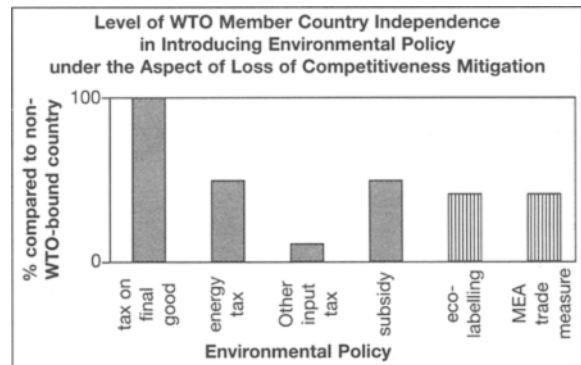
Figure 1 only covers environmental policy aspects. It thus disregards all trade benefits connected to WTO membership, which it would be necessary to consider in a full national cost-benefit analysis.

### Conclusion

We have analyzed the current international trade framework of the WTO and the continuing discussion in the WTO Committee on Trade and Environment (CTE) under the perspective of the IISD Principles on Trade and Sustainable Development, which points out the need for an improvement of the current trade framework. In most cases the deficiencies are under discussion in the WTO CTE already and this might lead to a consensus in the near or more distant future. These points of discussion supply some cornerstones towards which the further development of the trade framework will be directed:

<sup>34</sup> M. Jochimsen and G. Kirchgässner: Schweizerische Umweltpolitik im internationalen Kontext, in: Außenwirtschaft, No. 50, 1995, pp. 603-634, report the results of the coordinated project "Internationaler Kontext der schweizerischen Umweltpolitik".

**Figure 1**  
**Qualitative Assessment of Environmental Policy**  
**Loss of Competitiveness Argument**



- Inter-country equity implies a full integration of agriculture into the WTO, with environmental concerns creating additional momentum.
- An amendment or new interpretation of GATT Article XX will be sought in connection with resolving potential conflicts between multilateral environmental agreements and the WTO.
- For national environmental regulation further offset-policies will be particularly difficult to develop for input charges and PPM-related measures as they imply high ambiguity and monitoring demand. In this paper an alternative approach is suggested with the focus on incentives for environmentally sound investment rather than direct control of goods. This approach could be used to overcome current negotiation difficulties for some categories of environmental policies.
- The environmental expertise in GATT dispute settlement bodies will be strengthened for cases involving at least one non-MEA party, and MEA dispute settlement mechanisms are encouraged to be strengthened in order to avoid an appeal under GATT for cases involving only MEA parties.
- Increase in (*ex ante*) notification requirements with respect to environmental measures will contribute to limiting the number of dispute cases.

At the national level the potential non-mitigable loss of competitiveness differs with respect to the environmental policy instrument chosen, but is unlikely to represent the most important stumbling block in the introduction of a national environmental policy in most instances.