

Eco-Labeling in the Globalised Economy*

During the last few decades, public concern for the environment has gained in importance to the degree that »environment« is a substantial marketing factor. Consumers are now asking themselves how they can contribute to the protection of the environment, and companies are responding by offering products that are »environmentally-friendly«. However, in recent years, consumers – primarily in industrialised countries – are being overwhelmed by the environmental claims of companies which seem to appear on almost every product on the market. As a result, consumer confidence in the truthfulness of environmental information provided by the companies continues to decline. As consumers feel incapable of judging the various claims of environmental benefit, they are calling for independent labelling schemes aimed at providing consumers with concise, reliable, and comparable information on the environmental aspects of products. As a result, national and international environmental labelling schemes were set up.

Environmental labelling appears to have two general goals:

- ▶ providing consumers with the information which they desire and thereby increasing market efficiency (information policy instrument),
- ▶ reducing the environmental impact of local economies (environmental policy instrument).

This article provides an overview of eco-labelling as an environmental policy instrument within the context of the global economy and offers several recommendations for improving the effectiveness of this instrument.

The policy instrument »Eco-Labeling«

Environmental Labelling and Eco-Labeling

The term »environmental labelling« is rather broad and imprecise, whereas the term »eco-labels« refers to a special group of environmental labels. A concise characterisation of eco-labelling is supplied by the Global Eco-labelling Network (GEN), a non-profit association of currently fourteen eco-labelling organisations from around the world (GEN 1999):

- ▶ Eco-labelling makes a positive statement that identifies products and services as less harmful to the environment than similar products or services used for a specific function.
- ▶ Eco-labelling is fundamentally different from the setting of minimum product standards or requirements. The key difference is that eco-labelling is intended to reward environmental leadership.
- ▶ Eco-labels are multi-issue environmental labels, that focus on different aspects of a product, unlike specific-issue environmental labels such as energy-efficient or eco-toxic. Eco-labelling is the attempt to present a »holistic judgement of a product's relative environmental qualities compared to other functionally and competitively equivalent products« (Salzman 1994: 42). Thus, eco-labels aim to address the entire life-cycle of a product, examining the environmental impacts of raw materials, production, distribution, use, and disposal.
- ▶ Eco-labels are voluntary, i.e. companies may decide whether or not to apply for a label. For this reason eco-labelling schemes have so far not been charged in the World Trade Organisation

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(WTO) and the General Agreement on Tariffs and Trade (GATT) framework (i.e. for not complying with the Technical Barriers to Trade Agreement). However, GATT disputes remain important for the future development of eco-labels, as eco-labels may affect trade significantly in future and address the important question of market access.

Some examples of eco-labelling schemes are the German »Blue Angel«, the Nordic »White Swan«, the U.S. »Green Seal« (private) or the Euroflower (the eco-label of the European Union). The bulk of eco-label schemes have been set-up in developed countries, however eco-label projects are now also being initiated in developing countries such as Zimbabwe, Korea, Hungary or Thailand.

The Eco-Labelling Process

The first step in designing an eco-label is selecting a product category; for example, washing machines, shoes or deodorant sprays.¹ This is done by a labelling board which responds to suggestions from industry, environmentalists, consumers, and other interested parties.

The second step is assessing the environmental impacts of products in this product category throughout their life-cycle. This is typically known as a life-cycle analysis (LCA). Life-cycle analysis examines the material and energy inputs that go into the manufacture and use of a product and the solid, liquid and gaseous wastes that are generated at each stage of the product's life (raw materials, production, distribution and packaging, use, and disposal).

The third stage is the most critical: setting the criteria and thresholds for the award of an eco-label. Here, the eco-labelling body must not only take into consideration what is technically feasible, but also often weigh various environmental impacts in different media (air, water, soil) against one another. Different eco-label programmes engage in the weighing process to different degrees: the German Blue Angel programme tends to set certain relatively straightforward »set« criteria that must be met, whereas the EU eco-label tries to determine the »environmentally friendliest« product within a given product cate-

gory by means of an indicative assessment matrix. Rather than comparing all environmental aspects of a product, eco-labelling bodies inevitably identify a few criteria as the best means of singling out the environmentally superior products.²

The final step is reviewing and refining the product category and criteria. Here, interested parties including industry and environmental and consumer groups are asked for their input, although they are often already included much earlier on in the process.

Once the product categories and their corresponding criteria are made public, it is up to companies to apply for an eco-label. Normally, the applicant must pay the testing and certification costs, which may include plant visits.³ In addition, successful applicants must pay a fee for the use of the eco-label, usually a certain percentage of annual product sales.

Furthermore, the more ambitious eco-labelling programmes review product criteria every three or so years, often tightening requirements in response to market developments. It is important to mention that, since such eco-labelling schemes try to single out the environmentally-best products, criteria are meant to be designed so that only 10–20 per cent of all products within a product category qualify for an eco-label. Criteria thus need to be reviewed regularly to ensure that an eco-label remains effective.

General Problems with Eco-Labelling

The basic idea of eco-labelling is straightforward: examine all environmental impacts of a product throughout its entire life-cycle, compare it with other functionally and competitively equivalent products, and award an eco-label to the greenest

1. This section is based on Warmer Bulletin 1995, Oldenburg 1994 and Lindfors 1994.

2. For example, the EU eco-label programme determined that the largest environmental impacts of washing machines occur during their use and thus set label criteria for water, energy and washing powder consumption during use.

3. These fees can vary widely: while only U.S.\$ 190 in Germany, the application fee in Norway in 1990 was U.S.\$ 1,641 (OECD 1991: 24).

10–20 per cent of the products. Translating this idea into practice, however, creates a host of problems.

Selecting a product category: How broad should a product category be? In principle, products eligible for a label should be »functionally and competitively equivalent« in the eyes of the consumer. However, limiting an eco-label to cars, for example, would exclude the far more environmentally-friendly alternative of a bicycle, possibly causing consumers to not consider bicycles as an alternative to cars. On the other hand, broadening the product category to include bicycles and failing to recognise that most consumers do not consider bicycles to be a viable alternative to cars could also result in an ineffective label.

Life-cycle assessment process and the determination of criteria: How does one compare water pollution and energy consumption, if one product's life-cycle results in more water pollution while the other product's life-cycle results in more energy consumption? Life-cycle analyses (LCAs) are especially controversial due to parties often using them to support their own ends, and there is no commonly-accepted methodology for carrying out LCAs (Dawkins 1995, Lindfors 1994). Moreover, LCAs depend on a wide range of assumptions about production and distribution systems (production location, rail or road, diesel or gasoline, city or country deliveries) and the forms and types of energy (i. e. hydroelectric or fossil fuels). The question of recycling adds an additional element of uncertainty. Materials such as steel and aluminium can technically be recycled an infinite number of times, but is this actually the case?

The constant tightening of eco-labelling standards: This ensures that only a small percentage of products can qualify for an eco-label. Although discrimination on the basis on environmental performance is intentional, dynamic eco-labelling may have the unintentional effect of excluding the majority of producers. Those whose products do not currently qualify for a label might decide that they have little chance of ever acquiring one and the eco-label would fail to induce significant market changes within a product category. On the other hand, if eco-labelling standards are too lax or stationary, they lose their incentive character. It appears that this problem of »dynamic exclusion« is tied to the attempt to identify the »greenest«

products. However, some labelling programmes such as Germany's Blue Angel simply set certain criteria which have to be met, avoiding the difficulties of raising standards.

Complexity and costs: Routine LCAs cost between \$10,000 and \$100,000 these days and involved LCAs can cost dramatically more. One European government LCA is said to have cost 1.5 million ECU! (Oldenburg 1994: 166). At a certain point, the question of proportionality arises: are the costs justified by the environmental benefits?

Problems of Labelling in a Global Context

Placing the instrument of eco-labelling in the context of a globalised economy brings up new or exacerbated problems.

Domestic Bias

National eco-labelling programs are strongly biased towards domestic industry standards, both intentionally and unintentionally. Although eco-labelling boards usually accept proposals for new product categories from any interested party, the majority of such proposals comes from domestic industry (UNCTAD 1994a: 12, OECD 1991: 45). The definition of product categories can not only have a critical impact on the success or failure of an eco-label, but also producers can manipulate this to their advantage. Producers have the possibility to exclude certain functionally equivalent products from the eco-label scheme or excluding their own functionally equivalent products from a label scheme in order to avoid the stigma of a lack of eco-label – e. g. labelling schemes only for tropical timber, but not for other types of timber.

Eco-labelling programmes can also function as a so-called technical barrier to trade due to the additional difficulties faced by foreign producers in submitting their products for approval. Oftentimes, since eco-labels try to identify those manufacturing processes with the least overall environmental impact, they prescribe a certain process or the use of certain chemicals which are commonplace or at least easier to implement in the eco-labelling country or countries (UNCTAD 1994a: 14). Furthermore, labelling standards sometimes ignore

environmentally-friendly alternatives available in developing countries such as natural dyes (Jha/Zarrilli 1994: 68).

Differing Regional Conditions

A fundamental problem faced by eco-labels in a global market is that different economic regions have different environmental priorities and problems. For example, the reduction of SO₂ emissions (that lead to acid rain) is an important concern for European countries and a European eco-label may require that manufacturing processes have especially low SO₂ emissions. However, SO₂ emissions may not be so much of a priority for Brazilian policy-makers, compared to material consumption. Criteria requiring Brazilian producers to reduce SO₂ emissions, but allowing a relatively high amount of raw material consumption would be inappropriate for the Brazilian context. In order for eco-labels to be effective in a global economy, eco-labelling criteria related to the various processing stages would have to take the regional variations in environmental priorities into consideration.

Increasing Economic Complexity

Global sourcing has dramatically increased in intensity in the last couple decades. Transnational firms acquire the raw materials and intermediate products from multiple sources, due to an increasing flexibility of global production structures. This corporate policy of global sourcing complicates life-cycle analyses and eco-labelling schemes considerably. Is it still practically or economically feasible to examine the environmental impact of so many partial processes? The task of examining the environmental impacts of a car's entire life-cycle – given present-day economic structures – is daunting.

Another related phenomenon is the decentralisation of many trans-national corporations, who no longer micro-manage or directly control every aspect of production, but rather delegate responsibility to subsidiaries by means of sub-contracting. This particular form of company structure is often

used by companies as an excuse for not being able to guarantee or control certain aspects of production. For example, while Adidas does not own or control any plants in Asia, it gives out contracts to several sub-contractors in Asia who also produce shoes for other shoe companies. These sub-contractors, known for their low wages and lower labour standards, have a poor international reputation. However, Adidas press speaker Peter Csanadi stressed that his company cannot be held responsible for the activities of its sub-contractors: »It is not our job to monitor human rights« (Williamson 1996: 7).

On the other hand, there are indications that when public pressure has been strong enough, manufacturers have been able to pressure suppliers into complying with certain regulations and providing relevant information (UNCTAD 1995: 16–18).

Effects on Developing Countries

Currently, eco-labels are a matter of great concern for the governments of the developing world, due to their location of origin (industrialised countries) and their potential discriminatory effects. This refers to three broad areas:

Eco-Labels as Trade Barriers: Developing Countries have raised the concern that eco-labels have a negative affect on their terms of trade. Eco-labels regularly take production standards into consideration (compare section on the WTO) that are difficult to meet in developing countries due to the lack of adequate technology. Eco-labelling therefore can be misused by developed countries to establish non-tariff trade barriers toward exports from developing countries.

Extra Costs of Certification: The costs of testing and verification for foreign producers can be significantly higher, especially if they entail plant visits. It was reported in a study carried out in India that for some firms the costs of testing for compliance with the Netherlands eco-label requirements for footwear could lead to a cost increase of up to 50 per cent (UNCTAD 1994a: 14). Furthermore, in certain countries and even in OECD countries, the technology required to carry out compliance tests may not be readily available. The extra costs of certification thus appear to result from two general problems: distance and lack of technologi-

cal capacity.

Extra Costs of Compliance: The costs of compliance with process standards or material requirements are likely to be much higher for producers in developing countries, especially relative to their general operating costs. Furthermore, the compliance measures prescribed by eco-labels may not even be environmentally appropriate in those countries. Here, the extra costs of compliance appear to be caused by domestic and regional bias (see above).

Approaches to Solve the Problems

Ways of achieving the objectives of eco-labelling (reducing local and global environmental impacts) in a globalised economy while avoiding discriminatory effects are topics of intense and interesting debate. The following points outline and discuss various approaches available in the literature for resolving the tensions between eco-labelling programmes, differing local conditions, and international trade⁴:

Transparency and consultation: The first important step towards eliminating domestic bias is to increase transparency as much as possible during the eco-labelling process. Transparency contributes to the national and international credibility and acceptance of eco-labelling programmes. Moreover, a process of consultation could address problems of unintentional bias by bringing local conditions in other parts of the world into consideration, guaranteeing the true effectiveness of the eco-label as well.

Standards on standard setting: If certain procedures of transparency and consultation are followed, the resulting substance of the eco-labelling programme is likely to be non-discriminatory. Thus, rather than set up an international eco-labelling scheme, these guidelines are to ensure that the national and regional schemes – possibly having very different criteria – remain non-discriminatory. As discussed below, the ISO is in the process of developing a series of standards on environmental labels and eco-labelling schemes.

International co-operation: An international centre for eco-labelling could facilitate the exchange of information between national eco-labelling programmes and producers in the global

market, reducing information costs for companies in developing countries. Possible benefits of co-ordination among the different eco-labelling schemes would be the avoidance of multiple LCAs for the same product, the exchange of experiences, and the possibility of mutual recognition of awarded eco-labels.

The Global Eco-labelling Network (GEN), for example, was created in order to facilitate the exchange of information among its members, to provide information to the public, and to work towards a long-term harmonisation of eco-labelling programs. The International Trade Centre (ITC) has also initiated a programme on eco-labelling intended to assist developing countries in benefiting from eco-labelling programmes (UNCTAD 1995: 26).

Equivalence: One often-discussed approach to the problem of certifying foreign processes while avoiding discrimination is recognising efforts or achievements by foreign producers as equivalent to the fulfilment of an eco-label's production criteria. Canada's eco-label, the Environmental Choice Program, has adopted this principle by requiring that foreign producers comply with local environmental standards and accepting a written statement from the company chief executive officer that all relevant environmental standards have been met (UNCTAD 1994a: 11). The advantages of such an approach would be that it does not require the development of location-specific criteria or the inclusion of foreign conditions in the development of eco-labelling programmes.

Mutual recognition: A medium-term goal for eco-labelling is mutual recognition between two (or more) eco-labelling programmes. This means that if a product receives an eco-label from one programme, it would automatically be eligible for an eco-label from the other programme if the product category exists in both programmes. However, this approach does not necessarily solve the problem of differing regional conditions. Since eco-labelling programmes have been up until very recently located solely in industrialised countries, other countries will require support in setting up

4. Based on discussions in Caldwell 1998, Dawkins 1995, Jha/Zarrillia 1994, Neitzel 1998, Salzman 1994, Scholz 1994, Stevens 1994, UNCTAD 1994a, UNCTAD 1995, Ward 1997.

their own eco-labelling schemes.

International labels: It has been suggested that international labels be developed with internationally harmonised criteria (Jha/Zarrilli 1994: 71). This would make most sense for primary products such as agricultural products, timber, and fish. Commodity-specific labels would most likely be based on sustainability criteria, rather than on comparisons with similar products. Thus, the labels could conceivably (and ideally) have a market share of up to 100 per cent. On the other hand, since the production of these commodities currently require the use of machines and fuel, a comparison of environmental impacts could also be conceivable.

Technical and financial assistance: Technical assistance and capacity-building in the developing countries are obvious ways of overcoming several of the problems identified above.

Labelling in the Real World

The Blue Angel

The Blue Angel Label in Germany was created in 1978 in order to strengthen environmental policy, to provide reliable information to consumers, to create positive incentives for manufacturers to produce environmentally less harmful products, and to spur innovation towards such products (Rubik 1995: 24). The programme was the first and only of its kind for ten years until Canada introduced its Environmental Choice Program in 1988 (UNCTAD 1994a: 7). As a result, the Blue Angel has served as a model for all subsequent eco-labelling programmes.

Since its creation the Blue Angel has been increasingly accepted by producers and consumers. Whereas hardly any product was certified in the first several years after the introduction of the Blue Angel (1979: 48 products), the use of the Blue Angel increased exponentially in the following years (1984: 486 products, 1989: 3,250 products; OECD 1997a: 56). Today, the Blue Angel is awarded to 4,239 products in approximately 81 categories (UBA 1999). Examples of product categories for which criteria have been developed include: returnable bottles, low pollutant coatings, zinc-air-batteries, reusable ribbon cassettes as well as

refillable toner cartridges.

Administration of the Blue Angel

The Blue Angel is administered by three bodies: the Federal Environmental Agency (UBA, Umweltbundesamt), the German Institute for Quality Assurance and Labelling (RAL, Deutsches Institut für Gütesicherung und Kennzeichnung) and the Eco-label Jury (Jury Umweltzeichen). The creation and award of a Blue Angel eco-label consists of four stages.⁵ In the first stage, the UBA reviews proposals for new product categories (approximately 200 each year) and passes on those proposals (around 5–15 each year) considered worthy of further elaboration to the Eco-Label Jury (ECJ). During stage two, the UBA prepares draft technical papers detailing product category scope, draft criteria, and the tests required for fulfilling these criteria. The ELJ reviews the draft of basic criteria and the minutes of the expert hearing. The fourth and final stage is the awarding of the label to specific products. Since the label is voluntary, producers must decide whether or not to apply for a label.

Experience with the Blue Angel Eco-Label

The effectiveness of an environmental label ultimately depends on the extent to which consumers perceive, recognise and act on the information it conveys. A recent OECD study evaluated the actual effect of the Blue Angel scheme along three dimensions: market impacts, trade effects and environmental effectiveness (OECD 1997a: 52–60):

With respect to the actual market share of products awarded with the Blue Angel, little information is available. The exponential rise of the total number of eco-labelled products however indicates that the share of eco-labelled products rose as well. Studies undertaken in 1990 and 1991 showed that the Blue Angel is more important for professional purchasers than private consumers and one reason for this may be public procurement guidelines (OECD 1997a: 52; Neitzel 1995: 3). However, it should be pointed out that market penetration statistics are not intrinsically indicative

5. This section is based on discussion in OECD 1991: 46 and Rubik 1995: 25–27.

of the success of eco-labelling programmes if label criteria are regularly tightened.

The Blue Angel has had only a very limited effect on trade. According to the UBA, one third of products which have obtained the Blue Angel are foreign products. However, none of the product categories covered by the Blue Angel is of particular export interests to developing countries. In co-operation with developing countries, the eco-label jury is currently reviewing plans to certify products made of rattan and jute.

Environmental awareness has clearly increased in Germany in the last two decades. However, this awareness has not necessarily translated into a corresponding consumption pattern. The environmental effectiveness of the Blue Angel is difficult to assess and differs among the product categories. Surveys indicate that 51 percent of consumers in the West and 30 percent of consumers in the East paid attention to the label (Brockmann/Hemmelskamp 1995).

A recent study commissioned by the UBA evaluated the success of the eco-label (Häßler et al. 1998). For the study, a wide range of interviews and surveys were conducted among companies and selected experts. Overall, companies using the eco-label seem to be satisfied with the scheme and hardly any fundamental critique was expressed.

The European Union's Euro-Flower

Due to the size and importance of the European market, the EU Euro-Flower has potentially large implications for consumer and producer behaviour. However, the poor performance of the scheme up until now as well as competition between the Euro-Flower and the national labelling schemes have contributed to making this scheme highly controversial.⁶

Purpose and Procedure

The European scheme has an intentionally decentralised structure in which national »competent bodies« in the Member States accept proposals for product categories from interested parties, draft labelling criteria, and consult with national interest groups before submitting a draft proposal for consideration by the Commission at the European

level. The aspect of the European scheme most relevant for our considerations is the manner in which the specific ecological criteria are established for each product group: a combined load-point and hurdle system. First, a life-cycle analysis is carried out according to an Indicative Assessment Matrix. The areas of greatest environmental impact are then selected. For each parameter, environmental impacts are measured and accorded load points. In order for a product to receive a label, it may not exceed an overall load-point limit (load-point system) and may not exceed any one of the absolute limits set for each of the parameters (hurdle system). Thus, the Euro-Flower combines elements of comparison between the various environmental impacts with elements of standards for each significant environmental impact. It is the load-point system which is particularly controversial, since it compares inherently different environmental impacts. However, it comes closer than the hurdle system to identifying those products with the least environmental impact.

Experience with the European Flower

The European eco-labelling problem has been plagued by internal problems and heavy pressure from foreign industry and governments, and as a result faced considerable difficulties from the start. In its six years of existence, the scheme has only managed to approve of criteria for 12 product categories and award labels to some 160 products. One major factor in the scheme's slow progress has been the fact that criteria agreed upon by the Regulatory Committee still require the approval of all twenty European Commissioners. Companies or Member States unhappy with the committee's decisions have been able to block finalisation of criteria for months by persuading individual Commissioners to withhold consent (EWWE, 17 May 1996).

Industry has initially responded slowly to the EU eco-label, often choosing national eco-labels such as the Blue Angel and the Nordic White Swan over the fledgling Euro-Flower. This is

6. See Kraemer 1995 for a discussion of the European Union's use of eco-labelling and other indirect instruments, as well as implications for world trade.

reflected and exacerbated by the label's poor visibility: although almost all (93%) consumers interviewed in a UK National Consumers Council survey wanted action to ensure the truthfulness of environmental claims, only 9% were aware of the EC eco-label (ENDS, September 1996b). The European pulp and paper industry has been particularly vehement in its opposition and withdrew from the development of eco-labelling criteria for paper products in 1995. In 1998, no single German company had yet applied for the Euro-flower according to the RAL. Taking into consideration that German companies participated actively in the creation of the scheme this is a quite surprising result. Reasons for this might be the difficult administrative procedures and the high costs of awarding a label (at present, there is a 0.15% royalty fee for the use of the label, depending on the volume of sales).

Pressure has come from abroad as well – especially from the U.S., Canada and Brazil. These countries argue that the EU scheme is not transparent enough and only takes into account environmental priorities and conditions in Europe, resulting in discrimination against foreign producers. The U.S. and Brazil have been particularly upset over the EU's criteria for products such as toilet paper and kitchen rolls, approved in 1994. Brazilian exporters have claimed that the criteria favouring the use of recycled pulp discriminated against Brazilian manufacturers which use virgin wood from »sustainably managed« forest plantations. Moreover, the criteria do not take into account the fact that Brazilian producers largely use hydroelectricity and that the criteria concerning SO₂ emissions are of less relevance in Brazil, where acid rain is not a problem (UNCTAD 1995: 17). The first two points are an example of domestic bias, whereas the third point touches on the question of differing environmental conditions. Even if acid rain were a problem in Brazil, would an eco-label penalising SO₂ emissions infringe upon the right of Brazilians to determine their own environmental priorities?

Plans to Revise the EU Eco-Label

The difficulties encountered by the implementation of the EU eco-label regulation have led to plans to revise the label. However the Commission's proposal in 1996 to revise the scheme found

little favour with national eco-labelling authorities or the European Parliament. Proposals that proved to be unacceptable include the creation of an independent European Eco-labelling Organisation (EEO), the introduction of a graded label, and the immediate abolition of national eco-label schemes (Labels 1999).

The latest proposal from the Commission calls for the eco-label scheme to be expanded to the services sector and non-EU interest groups to play a greater role in the decision-making process. The new proposal calls for technical and political committees to be organised by the Commission with Member State and stakeholder participation. The Commission will also likely drop its previous demand that national and regional eco-label schemes be discontinued. Other potential changes include reducing the fees companies have to pay to get the label.

Eco-Labelling and the World Trade Organisation

Strong controversy surrounds the question whether eco-labelling schemes differentiate between products on grounds that are accepted by the World Trade Organisation (WTO). Therefore, eco-labelling already has been discussed extensively in the WTO, especially by its Committee for Trade and Environment (CTE) and the Committee on Technical Barriers to Trade (CTBT). Two main provisions of the GATT legal framework are generally discussed with view to eco-labelling: Article XX of GATT 1994 and Annex III of the WTO Agreement on Technical Barriers to Trade (TBT).

The crux of the tension between the current form of the GATT and eco-labelling was put succinctly by Jan Adams (1994: 171): whereas »the GATT is based squarely on the principle of national sovereignty [...] Life-cycle management attempts to follow a product and its components through whatever spatial environment is affected by the product's production, use and disposal, irrespective of political boundaries«. As a result, the theoretically »legitimate« jurisdictions of nations – that is, the right to have a say in those matters which affect oneself – are expanding beyond national territories and increasingly overlapping one another.

The TBT Agreement is intended to prevent

technical requirements set by member countries from forming *de facto* barriers to trade. The TBT Agreement differentiates between mandatory requirements (»technical regulations«) and voluntary requirements (»standards«). As eco-labelling schemes are voluntary, discussions have focused on the provisions of the TBT Agreement in relation to standards. Standards are addressed by a Code of Good Practice that is annexed to the TBT Agreement (Annex III). The application of the Code of Good Practices is basically voluntary but Member States are requested under Article 4.1 of the TBT Agreement to ensure that local and non-governmental standardising bodies comply with the code. However, the important questions, whether eco-labelling schemes are covered by the TBT Agreement and if yes, how the use in eco-labelling programmes of criteria based on non product-related processes and production methods should be treated under the rules of the Agreement remain up to now unsolved (WTO 1999).

The following sections summarise the discussion on the coverage of the TBT Agreement and discuss relevant decisions of the WTO dispute settlement in relation to eco-labelling. These decisions are important as GATT members can take other signing parties before the WTO dispute settlement body if they feel that GATT rules have been violated. As a result, if eco-labelling programmes (and many other national measures) are to be successfully defended in front of the WTO dispute bodies, they must be consistent with GATT rules. If not, the WTO could ultimately serve as the biggest hurdle for effective eco-labelling programmes in the international marketplace.

The TBT Agreement and Eco-Labelling

Strong controversy surrounds the question of whether or not eco-labelling schemes are covered by the TBT Agreement and as a result subject to its mandates. The definition of a standard as being voluntary would appear to support the coverage of eco-labelling schemes. On the other hand, many countries are troubled by the fact that, while this definition mentions only product-related process and production methods (PPMs), eco-labelling schemes and their life-cycle analyses explicitly include non product-related PPMs.

Numerous standpoints have been taken in the

CTE on the extent to which eco-labels are covered by WTO rules. Based on summary records of the CTE meetings in the period of 1995 to 1996, Doaa Abdel Motaal has summarised this discussion (Motaal 1998: 5). Four opinions are distinguished:

- ▶ Eco-labels are both covered by and are consistent with the TBT-Agreement.
- ▶ Eco-labels are not covered by the TBT Agreement, but scope needs to be created for them.
- ▶ Eco-labels are not covered by the TBT Agreement, and creating scope for them could endanger the trading system. Tremendous care should be exercised in how this issue is addressed in future. A combination of increased transparency, equivalence and mutual recognition could help alleviate their effects on trade.
- ▶ Eco-labels are inconsistent with the TBT Agreement, and should not find any accommodation within the WTO system.

Besides the discussion on coverage, a comparably controversial discussion about consistency of eco-labelling exists. The main concern in this discussion relates to the questions surrounding non product-related process and production methods (PPMs). The methods employed during the production stage of goods are an integral part of a product's life-cycle and thus a vital consideration for eco-labelling criteria. PPMs which do not affect the functional characteristics of the final product are known as non product-related PPMs (or unincorporated PPMs). These PPMs include use of dolphin-safe nets in the fishing of tuna or the use of turtle-excluding devices (TEDs) in the fishing of shrimp. PPMs which have an impact on the final product are known as product-related PPMs (or incorporated PPMs). While WTO rules allow countries to impose restrictions and regulations based on »product characteristics and their related processes and production methods« – provided of course that the principles of non-discrimination are not violated – »multilateral trade rules and disciplines make no provision for, and have been interpreted not to allow for, import restrictions based on characteristics which are not physically embodied in the imported products« (UNCTAD 1994b: 16; 1995 Joint Expert Group Report to Ministers, in: WTO CTE 1995). Thus, WTO members agree that product-related PPMs are covered by the TBT Agreement but there is disagreement on non product-related PPMs. Those who have argued that

the TBT Agreement does not cover non product-related PPMs argue that eco-labels are neither consistent nor inconsistent with the Agreement, they simply fall outside its scope.

Other parties have raised the concern that non-product related PPMs are not consistent with the important concept of »like products«. »Like product« is a key-concept of WTO's non-discrimination principle. The concept of »like products« addresses the difficult question which products are regarded as comparable and therefore have to be granted similar treatment. It remains an open question whether products may be differentiated based on production criteria that do not affect their functional characteristics. WTO members who have argued that it does not allow for such a distinction between products, have stated that eco-labels based on LCA are inconsistent with the TBT Agreement (Motaal 1998: 3).

GATT Article XX however does provide for exceptions to the general GATT rules, including provisions for environmental issues: Article XX(b) allows measures »necessary to protect human, animal or plant life or health«, and Article XX(g) allow measures »relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption«. Historically, these exceptions have been narrowly interpreted and a measure has been considered »necessary« only if no »less GATT-inconsistent« policy is available to achieve a stated environmental objective (see discussion in Ward 1997, Esty 1994, Michaelowa 1996, and Reiterer 1994). In the following section we will summarise the most important decisions on these exceptions in relation to eco-labelling, and non-product related PPMs in particular.

Decisions of the WTO Dispute Settlement Bodies

In examining previous encounters between GATT/WTO principles and non product-related PPMs with relevance for eco-labelling, the following experiences stand out: the two Tuna-Dolphin decisions by GATT dispute panels (1991, 1994), the Venezuela–U.S. Refineries dispute before the WTO (1996) and the Appellate Bodies Report on the U.S. import prohibition of certain shrimp products (1998).

The Tuna-Dolphin dispute revolved around a U.S. ban on imports of Mexican tuna. The 1972 U.S. Marine Mammal Protection Act called on the federal government to take measures to curtail the incidental killing of marine mammals by commercial fishers, both domestic and foreign. Thus, in 1988 the U.S. federal government banned imports of Mexican tuna on the grounds that Mexican fishers did not use dolphin-safe fishing nets. Mexico brought the case before a GATT dispute panel which found in September 1991 that the U.S. had violated its GATT obligations. Of specific importance to the issue of PPMs, the panel decided that the exceptions contained in Articles XX(b) and XX(g) could not be applied unilaterally or extra-jurisdictionally. However, the panel approved of the U.S. voluntary labelling programme for »dolphin-safe tuna« – which drastically reduced market demand for Mexican tuna – as being consistent with GATT rules (Esty 1994: 268; Ward 1997: 142). In a second Tuna-Dolphin decision in 1994, a different GATT dispute panel decided not to challenge the extra-jurisdictionally nature of the U.S. law, but rather to condemn its unilateral nature (Esty 1994: 269). Since neither of the Tuna-Dolphin decisions were ever formally adopted by the GATT Council, they did not legally bind the parties involved. However, they have given some guidance in how to interpret Article XX (b) and (g).

The Venezuela–U.S. Refineries dispute was the first dispute to reach the stage of a complete panel report under the new WTO dispute settlement procedure. Venezuela argued that a U.S. regulation based on the Clean Air Act Amendments of 1990 which required foreign refineries exporting to the U.S. to meet certain baseline standards, while allowing U.S. refineries to establish individual baseline standards, discriminated against imports. However, referring to the exceptions provided in Article XX (g) (see above), the United States argued that imported gasoline and the gasoline of »similarly situated« parties were treated equally by its regulation. In the WTO panel report submitted in January 1996, the panel agreed with Venezuela and rejected the U.S. argument, stating that the U.S. interpretation of Article XX (g) would »mean that the treatment of imported and domestic goods concerned could no longer be assured on the objective basis of their likeness as products« (IISD 1996: 42). Furthermore, the panel stated that alter-

native policies were available to the U.S. and that the regulation was therefore not »necessary«. In 1996, the Appellate Body confirmed the conclusions of the panel, however challenged its arguments on like products.

In 1998, the WTO Appellate Body rendered a much-awaited ruling in the U.S. Shrimp Turtle dispute (12 October 1998). The United States had banned imports of shrimp and shrimp products that were caught by commercial shrimp trawlers operating in sea turtle habitat without using turtle-excluding devices (TEDs). The TEDs are supposed to allow turtles to escape from the trawling nets. In this ruling the Appellate Body came to the conclusion that the U.S. legislation is not in compliance with WTO rule. The ruling was criticised by many environmental groups and was taken as an additional prove of the WTO's unwillingness to take environmental considerations into account. However, a closer look at the ruling reveals that the Appellate Body has carefully crafted a positive way to resolve trade-environment disputes. It has set clear guidelines as to how the United States might comply with GATT rules and still implement legislation designed to protect endangered species. From an environmental viewpoint, the interpretation of the GATT rules given by the Appellate Body are remarkable in two respects:

- ▶ The Appellate Body accepted non-governmental organizations' (NGO) briefs for consideration. These brief statements were attached to the U.S. submission to the WTO dispute settlement panel. In earlier cases, NGO opinions have been regarded as »non-requested information« and therefore were neglected. The decision improves the chances for NGOs that in future settlement procedures their concerns will officially be taken into consideration.
- ▶ The Appellate Body focused less on the context of the overall WTO Agreement than on the contemporary context. It thereby affirmed that the term »exhaustible resources« is not static in its content or reference but is rather by definition evolutionary. This means that the meaning of the GATT text may change over time. A legal provision that expresses environmental concerns should be interpreted in the light of present environmental concerns rather than reflecting out-dated environmental concerns.

These three encounters demonstrate that

GATT/WTO still faces difficulties to accept non product-related PPMs as a basis for distinguishing between »like« products, and that GATT requirements provide a significant hurdle for environmental policies with intentional or unintentional trade effects. However, the Appellate Bodies decision in the U.S. Shrimp Turtles dispute made a considerable contribution to the trade and environment debate by outlining ways how unilateral environmental measures can be brought into compliance with GATT/WTO rules.

The International Organisation for Standardisation (ISO)

The ISO is a world-wide association of some 100 national standards bodies, established in 1947 to promote the development of standardisation and related activities in the world. Historically, the ISO has developed technical and quality standards with companies being the main clients.

WTO members argued that the TBT Agreement should cover certain standards based on non product-related PPMs in voluntary eco-labelling programmes, provided that these programmes were developed according to ISO guidelines. However, in reaction to this proposal, concerns were expressed, in particular by developing countries about the use of ISO guides on the grounds that not all WTO members participate in ISO, and that its decision making process is not consensus-based (Motaal 1998: 6).

One of ISO's Technical Committees (TC 207 on Environmental Management) is developing the ISO 14000 series of standards. This series was developed to address various environmental issues like environmental auditing, environmental labelling or life-cycle assessment. The Organisation has already adopted the ISO Standard 14020 on General Principles for All Environmental Labels and Declarations. Especially contentious have been the principles 7 and 9; the former prohibits environmental labels which create »unnecessary« obstacles to trade and a note accompanying the principle explains that the guideline will be subject to all WTO rules, including its dispute procedures; the latter requires that the labelling process be open to all interested parties and that »reasonable efforts« be made in order to achieve a consensus, which in this context means an absence of serious

and sustained opposition. The »reasonable« wording was a compromise between two camps: a pro-business camp led by the U.S. and Canada, supported by developing countries and interested in ensuring that eco-labelling programmes remain subordinate to trade imperatives; and a pro-labelling camp led by the Europeans, who are worried that such requirements could severely handicap the development of eco-labelling programmes (EWWE, 5 April 1996).⁷ Another key question regarding the ISO 14020 is its status: EU countries led by the UK, Germany and France tried in November 1995 to downgrade the draft principles from an international standard to a guideline for other standards, which would theoretically have prevented its use as a basis for challenging eco-labelling schemes under WTO rules. However, this was hindered by the U.S.-led faction, which managed to postpone the decision until the next meeting, where developing countries (joining the working group for the first time) supported the U.S. in maintaining the standard status (EWWE, 19 July 1996). The ISO 14020 became a published international standard in 1998.

It is also important to mention that the ISO is considered to be dominated by large business companies from the industrialised countries (ENDS, September 1996a). Although ISO rules and procedures are not inherently exclusive and state that the standardisation processes »shall be accessible to materially and directly interested persons and organisations«, the principal barrier to participation is cost. The World Wide Fund for Nature (WWF), one of the wealthiest non-governmental environment groups, can only afford to attend three of the sixteen ISO groups working on environmental standards. Similar problems are faced by businesses from developing countries and smaller businesses. Moreover, since the ISO has traditionally relied on the good will and co-operation of interested parties, it lacks adequate mechanisms to monitor and enforce compliance with its guidelines and standards.

Four Suggestions

Eco-labelling aims at increasing consumer information and sensibility, while providing producers and retailers with incentives to provide more envi-

ronmentally responsible products. Important to keep in mind is the global context, with regions differing in economic, social and environmental conditions and priorities. A main challenge for labelling schemes is to adequately take these regional differences into consideration. In light of the above discussion, four suggestions can be made for the future direction of labelling efforts:

Prioritising the product categories: Criticism has been levelled at the EU eco-labelling programme for spending much time and effort on products with marginal environmental impacts. Highest priority should be given to those issues of irreversible environmental damage. With regards to such issues, labels might serve as the forerunner for international regulation and prohibition of activities which result in irreversible environmental damage (tropical forest destruction, depletion of natural resources, desertification).

Avoiding certain product categories in the short term: It has been suggested that eco-labelling schemes avoid product categories which have most of their environmental impact during the production phase (Neitzel 1998). This is certainly a sensible approach for the immediate future, since eco-labelling schemes can hardly take into account the conditions of production in all countries worldwide.

Integration of environmental concerns in the GATT/WTO: The WTO will remain to be a trade-biased organisation in the long term and will only accept environmental measures that are not suspected to be hidden trade barriers. Therefore, clear guidelines have to be set up how environmental issues (like non product-related PPMS) can be accepted as a basis for discrimination between products within the GATT/WTO framework. Such guidelines will help to distinguish between measures taken to safeguard the environment and those which serve as a hidden trade barrier. The recent decision of the Appellate Body on the Shrimp/Turtle case gave some guidance in this respect by listing the deficiencies of the U.S. policy that prevented the body to approve this unilateral

7. Experience with the EU eco-label would generally support the concern that foreign (and domestic) industry is often more interested in undermining a label than in guaranteeing its neutrality. Thus, a clause requiring the »consensus« of all interested parties could effectively paralyse eco-labelling programmes.

environmental measure. At the same time, clear guidelines will help to increase the transparency of the eco-labelling process and will increase the likelihood that different eco-label schemes will mutually recognise each other.

Working with developing countries: In order to be able to fairly label products of developing countries, the eco-label programmes in the industrialised countries must work together with producers and administrators in developing countries. The medium-term objective of such co-operation would be the development of eco-labelling authorities in all countries which would be able to address the circumstances in their own country. This would help to advance towards mutual recognition. Efforts should be made to enable developing countries to fully participate in international standardisation procedures. This will help to avoid negative trade effects for these countries. ◀

References

Adams, Jan (1994): »Life-Cycle Management and Trade Rules«. In: OECD, *Life-Cycle Management and Trade*, 170–185.

Brockmann, Karl Ludwig/Hemmelskamp, Jens (1995): *Umweltzeichen und Verbraucherverhalten – Wie »grün« ist der Blaue Engel?.* Mannheim: Zentrum für Europäische Wirtschaftsforschung.

Caldwell, D. J. (1998): »Eco-labeling and the Regulatory Framework – A Survey of Domestic and International Fora«. Prepared for the Consumers' Choice Council, Washington, D.C. World Wildlife Fund. <http://www.consumerscouncil.org/ccc/policy/ecolab1.htm>.

Dawkins, Kristin (1995): *Eco-labelling: Consumers' Right-to-Know or Restrictive Business Practice?* (Executive Summary). Minneapolis, MN: Institute for Agriculture and Trade Policy.

ENDS, Environmental Data Services (September 1996a): »ISO under fire over environmental standards«. Report 260, 3–4.

ENDS, Environmental Data Services (September 1996b): »Eco-label will help own brands, claims UK Eco-labelling Board«. Report 260, 27.

Esty, Daniel (1994): *Greening the GATT: Trade, Environment, and the Future*. Washington, DC: Institute for International Economics.

EWWE, European Watch: Western Europe (17 May 1996): »Commission Outlines Plans to Overhaul EU Eco-label«. Vol. 5, No. 10, 1–2.

EWWE, European Watch: Western Europe (19 July 1996): »ISO Eco-labeling Principles on Track to Become Global Standard«. Vol. 5, No. 14, 9–10.

EWWE, European Watch: Western Europe (22 January 1999): »Germany to Lead Move to Revise EU Eco-labelling Scheme«.

EWWE, European Watch: Western Europe (5 April 1996): »EU Members Unhappy at Draft ISO Eco-label Standard«. Vol. 5, No. 7, 1–3.

GEN, Global Eco-Labelling Network (1999): <http://www.interchg.ubc.ca/ecolabel/gen.html>; 10. January 1999.

Häßler, Rolf-D./Mahlmann, Imke/Schoenheit, Ingo (1998): »Erfolgskontrolle Umweltzeichen/Assessing the Success of the German Eco-Label«. UBA-Texte 61/98. Berlin: UBA.

IISD, International Institute for Sustainable Development (1996): *The World Trade Organisation and Sustainable Development: An Independent Assessment*. Winnipeg, Canada: IISD.

Jha, Veena/Zarrilli, Simonetta (1994): »Eco-labelling Initiatives as Potential Barriers to Trade«. In: OECD, *Life-Cycle Management and Trade*, 64–76.

Kraemer, R. Andreas (1995): »World Trade and Indirect Instruments in European Environmental Policy«. In: Carius, Alexander/Höttler, Lutz/Mercker, Hinrich (eds.): *Environmental Management in Kenya, Tanzania, Uganda and Zimbabwe*. Berlin: Deutsche Stiftung für internationale Entwicklung.

Labels, Linking Consumers and Producers (1999): »Revisions planned for EU-Eco-label Programme«. Vol. 3, Number 1.

Lindfors, Lars-Gunnar (1994): »Life-Cycle Assessment and trans-boundary trade«. In: Bengtsson, AnnaMaria et al., *The Environment and Free Trade*. Uppsala, Sweden: EPOS, Research Programme on Environmental Policy and Society, Uppsala University, 61–66.

Michaelowa, Axel (1996): »Trade and labelling of timber and timber products«. HWWA-Diskussionspapier Nr. 38, August 1996.

Motaal, Doaa Abdel (1998): *Eco-Labelling and the World Trade Organization*. Manuscript.

Neitzel, Harald (1995): *The Development of the Blue Angel Scheme in Germany*. Berlin: Umweltbundesamt.

Neitzel, Harald (1998): »Applying non product-related criteria in eco-labelling – Some controversies and experiences«. *Gate 2/98*, 14–20.

OECD (1991): *Environmental Labelling in OECD Countries*. Paris: OECD.

OECD (1997): *Eco-Labelling: Actual Effects of Selected Programmes*. OCDE/GD(97)105. Paris: OECD.

Oldenburg, Kirsten (1994): »Life-Cycle Assessment: The State of the Art«. In: OECD, *Life-Cycle Management and Trade*, 165–169.

Reiterer, Michael (1994): »The International Legal Aspects of Process and Production Methods«. In: *World Competition*, Vol. 17, No. 4, June 1994, 111–128.

Rubik (1995): *Product Policy and the Environment: The Example of Eco-labels*. Berlin: Institut für ökologische Wirtschaftsforschung. Schriftenreihe des IÖW 88/95.

- Salzman, Jim (1994): »The Trade Implications of Trends in Eco-labelling«. In: OECD, *Life-Cycle Management and Trade*, 41–47.
- Scholz, Imme (1994): »Pro and Contra von Umweltzeichen (Ökolabelling)«. In: Chahoud, Tatjana/Massarrat, Mohssen/Mayer, Jörg (Ed.): *Internationaler Handel im Zeichen nachhaltiger Entwicklung*. Rehrburg-Loccum: Evangelische Akademie Loccum, 255–265.
- Stevens, Candice (1994): »Synthesis Report: Life-Cycle Management and Trade«. In: OECD, *Life-Cycle Management and Trade*, 7–22.
- UBA, Umweltbundesamt 1998: *20 Jahre «Blauer Engel» – Das deutsche Umweltzeichen*. Berlin: UBA.
- UBA, Umweltbundesamt 1999: »Infoblatt zum Umweltzeichen. Aktuelle Fakten und Daten«. Berlin: UBA.
- UNCTAD, United Nations Conference on Trade and Development (1994a): »Eco-labelling and market opportunities for environmentally friendly products«. Report by the UNCTAD Secretariat, TD/B/WG.6/2, 6 October 1994.
- UNCTAD, United Nations Conference on Trade and Development (1994b): »Trade and Environment Related Activities of UNCTAD«. Note prepared for the EU-EFTA Seminar »Trade and Environment – PPMS«, Vienna, 2–4 February 1994.
- UNCTAD, United Nations Conference on Trade and Development (1995): »Trade, Environment and Development Aspects of Establishing and Operating Eco-Labeling Programmes«. Report by the UNCTAD Secretariat, TD/B/WG.6/5, 28 March 1995.
- Ward, Halina (1997): »Trade and Environment Issues in Voluntary Eco-labelling and Life Cycle Analysis«. In: *Eco-labelling and Life Cycle Analysis*, Volume 6, Issue 2, 139–147.
- Warmer Bulletin (1995): »Life cycle analysis & assessment«. In: *Journal of the World Resources Foundation*, August 95, Nr. 46, pull-out information sheet.
- Williamson, Hugh (1996): »Shopper gegen Kinderarbeit«. In: *die tageszeitung*, 7/8 December 1996, 7.
- WTO CTE, Committee on Trade and Environment (1995): *Trade and Environment News Bulletin No. 6*, 8 December 1995.
- WTO, World Trade Organisation (1998): *Trading into the Future: WTO – The World Trade Organisation*. 2nd edition. Geneva, Switzerland: WTO.
- WTO, World Trade Organisation (1999): *Trade and Environment in the WTO*, <http://www.wto.org/wto/environ/1.htm>, 11 April 1999.