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## FOREST CERTIFICATION AND ENVIRONMENTAL LAW

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### INTRODUCTION

Forest certification was originally devised as an instrument to promote sound forest management practices in developing states. Because of the rapid disappearance of tropical forests, which are vital for protecting sinks for greenhouse gases and maintaining biodiversity, there was at one time a serious threat that major consumer groups would entirely refuse to buy wood products from tropical countries. However, this paternalistic and ultimately ineffective approach was soon abandoned in favor of a more subtle technique of achieving acceptable and appropriate management practices from enterprises who are engaged in the management of tropical forests. The Forest Stewardship Council (FSC), founded in 1993, has been crucial in trying to promote sustainable management of tropical forests. It has done this by combining the setting of substantive standards for sound forest management and supervision of adherence to these standards, on the one hand, with reliance on the market preferences of manufacturers, distributors, and consumers through the information and confidence provided by the award of an environmental label, on the other hand. The FSC program is international in character, although it allows for a relatively high degree of national variation. Since its inception, it has spread from tropical countries to countries in moderate or boreal climate zones, such as the United States, Canada, Scandinavia, and Germany. The forest area covered by the FSC certification program exceeds 22 million hectares, and in Germany more than 240,000 hectares are covered. Since 1998, the Pan-European Forest Certification (PEFC) program has emerged as a powerful competitor against the older FSC program. Although younger and limited in geographical scope to Europe, the PEFC program covers about 37 million hectares; the figure for Germany is 3,850 million hectares. Moreover, there are a number of national forest certification systems, such as the Sustainable Forest Initiative established by the American Forests and Paper Association and the Indonesian forest certification system.

There are distinct differences between the two major international forest certification programs as regards the standards applied for certification, the societal groups supporting the relevant program, the relationship to forest authorities, and the political, administrative, and legal background factors (Bass and Simula 1999; CEPI 2000; Hansen and Juslin 1999; Sprang 2001). This makes very difficult any abstract discussion of the role played by forest certification in the international community and in the political - administrative systems of participating countries as well as of its significance as a novel instrument of environmental

policy. However, it would be unilateral to focus on the FSC scheme, since this scheme, although certainly the vanguard of the forest certification movement and dominant in tropical countries, has not been able to gain much support in Europe in the confrontation with the PEFC program.

This paper analyzes forest certification from a state-oriented perspective, setting it in relation to environmental policy developed and implemented by the state. Although I do not ignore the existence of the phenomenon of self-regulation, especially at the international level, my major understanding is that, even if one admits shortcomings of the political system based on the state, it is the state (and the international community) that must retain a residual responsibility for the pursuit of the public interest with respect to self-regulation and, hence, also forest certification systems. With this understanding, the paper looks at the reasons for the emergence of forest certification systems; analyzes their function as an “instrument” of environmental policy and law, especially their relationship to other soft (or flexible) instruments; and evaluates them under the perspective of consumer information, ecological effectiveness, coherency, and legitimacy.

I have a long-standing interest in nonregulatory instruments of environmental policy, including self-regulation. Although I am not a specialist in forestry law, I was involved in research on forest utilization contracts in tropical countries in the 1980s, and, later on, as a member and then chairman of the German Council on Environmental Policy (Sachverständigenrat für Umweltfragen), I was involved in preparing a chapter of the council's last biannual report on German environmental policy, which deals with the ecological aspects of forestry policy in Germany. Forest certification is a phenomenon in which I can put these interests and experiences together to make a meaningful outsider contribution to a discussion that is largely led by specialists.

## **TRANSFORMATIONS OF NATIONAL STATEHOOD, THE INTERNATIONAL COMMUNITY, AND ENVIRONMENTAL POLICY AND ITS IMPLEMENTATION**

### **Transformations of National Statehood**

Conventional forestry policy and environmental policy with respect to forests are based on the classical paradigm of the hierarchical state. This is especially true of developed countries, although, because of large state holdings of forests and the recognized professionalism of personnel responsible for managing forests, there has been a relatively large measure of autonomy compared with other sectors of environmental law. In developing countries, the classical model is largely blurred by the weakness of the state. To date, the relations between the state and the civil society are no longer exclusively characterized by hierarchical control exercised by the state. By contrast, in many instances the model of hierarchy has been replaced by coordination between state and societal actors, which expands the role of civil society (for the notion of civil society, see Walzer 1995). Coordination takes place in a variety of forms. There are negotiation systems that comprise state and societal actors, and there is

an increasing degree of self-regulation either “in the shadow of” or even without state involvement. The increasing importance of new forms of coordination and private ordering reflects fundamental transformations in the relationship between state and society. On the one hand, in modern democracies the political system assumes to an ever-increasing extent new and more complex tasks. On the other hand, the ability of the state to steer societal processes in a centralized and hierarchical manner is decreasing because of the modern structural development of society with its pluralistic value system. The state is confronted with tasks that it cannot complete with traditional steering mechanisms. Negotiation systems between state and societal actors as well as independent self-regulation by society react to this phenomenon (Elliott 1999; Mayntz 1993; Scharpf 1993; Schuppert 1995).

In many cases, these negotiation systems consist of policy networks. These networks contain a variety of actors who have an interest in the object of regulation. Networklike structures make it possible to use the problem-solving potential of all actors and to achieve common solutions of complex and long-term problems of society in the framework of relatively stable and institutionalized cooperation systems. These include the formulation and implementation of environmental policy. In spite of this, the state retains a privileged position; it represents or may represent the public interest and operates or may operate as a moderator. It can take recourse to imperative controls whenever the policy network produces clearly insufficient results. It can be a formal party to the negotiation system by participating in the bargaining process. Even if it abstains from doing so, it retains residual powers as described. Societal ordering occurs in processes that lack formalized requirements as to the legitimacy of the participating actors and do not automatically ensure fair access of all interested parties; normally, only those actors are admitted who share the values established by the system. Therefore, it is not evident that the solutions achieved by policy networks are always acceptable. If a fair representation of all relevant economic, ecological, and social actors is provided, one may expect that this will contribute to a satisfactory performance of the process. However, even in such a case, this is not necessarily true, because the compromises reached by the groups may be at odds with, for instance, the logic of a market system. In addition, given the undeniable fact that the rooting of many nongovernmental organizations (NGOs) in society is quite weak as compared with political parties, there are problems of representative capacity and accountability. The process is not controlled by the kind of checks and balances provided in state decision-making processes through periodic elections.

### **Transformation of the International Community**

The transformation of the relations between states and civil society is most conspicuous at the international level. Under traditional public international law, the states are the sole actors in the international arena. International civil society, in various international arenas, has emerged as a major actor, in part because of the limited problem-solving capacity of one-dimensional international negotiation and decision-making systems in which states operate as sole actors, but also because of the quantitative growth of the international community, global information techniques, the globalization of the economy, and the pressures and ever-

increasing globalization of problems to be addressed (Falk 1997; Falk and Strauss 2000; Teubner 1997). This phenomenon is most important with respect to the regulation of international commercial transactions in which the *lex mercatoria* and international arbitration have become dominant, but it also extends to other areas. NGOs do not just play an important role in international negotiations between states; rather, private ordering by civil society has become an important aspect of international regime building with respect to economic and social as well as environmental matters. It is safe to say that the role of the civil society is much stronger at the international than at the national level, probably because of the greater discrepancy between the problem-solving capacity of the old, state-based paradigm of international negotiation and decision making and the pressure of global problems. Even if one uses a broad definition of law, it is safe to say that not all “products” of the international civil society can be denoted as (societal) law, as the activities of the international civil society include participation in state-dominated negotiation systems.

## **Transformation of Environmental Policy and its Implementation**

### **Deficits of conventional instruments**

Since the Rio Declaration, the principle of sustainable development has become the dominant principle of international economic, social, and environmental policy, although, according to the Rio Declaration, it is up to the signatory states to develop their own concept of sustainability. It goes without saying that differences in factor endowment, degree of development, extent of consumption of natural resources, and ability to reduce this consumption lead states to emphasize quite different aspects of their sustainability policy. Whereas in developing countries the focus is clearly placed on development, industrialized countries tend to construct the principle of sustainability more in the direction of protecting the environment and natural resources.

What is interesting in the present context is that the ends-means rationality that underlies traditional environmental policy - be it based on the preventive or even on the precautionary principles - has lost its monopoly as an intellectual standard of policy making in the field of sustainability policy. Although the relevant international texts call for sustainability strategies that also embody quantitative targets, in view of the complexity and interrelationship of the environmental, social, and economic aspects of sustainability, it is often not possible to set concrete environmental or resource conservation targets. Widespread scientific uncertainty about the existence and extent of risk, the complexity of potential adverse impacts of relevant measures on industry and the labor market, the danger of shifting the problem from one environmental medium to another, the need to achieve structural change of the economy as well as change in the whole society's value system - all these factors render conventional ends - means rationality less useful; rather, they require proactive environmental policy. Such policy aims at an environmentally friendly societal structure but often must rely on merely guiding the general direction of intended change. Even when it is possible to set concrete sustainability targets, it is in most cases impossible or at least politically highly risky to rely solely on conventional instruments of environmental

policy to implement these targets. This, among other factors, explains the emergence of a new generation of instruments of environmental and natural resources conservation policy.

In implementing its objectives, environmental law in virtually all states, be they developed or developing, has primarily employed command-and-control regulation. It has covered the society with a dense network of laws, regulations, and administrative rules that prohibit certain activities, lay down requirements for other types of activities, make the exercise of such activities conditional on the fulfillment of certain prerequisites, and subject prohibited activities to criminal administrative sanctions. Increasing recourse to planning of environmental quality also amounts to the establishment of a public management system for natural resources that allots scarce land or absorption capacities to particular polluters. Of course, the degree to which these laws are effectively implemented and enforced varies from country to country. Economic instruments are considered by economists as an alternative to command-and-control regulation because they are more suited to the individual costs of pollution control prevention, can foster innovation, and may even be more effective. However, even economic instruments are based on the underlying logic of ends-means rationality. They can only react to pressures exerted by a particular environmental problem that is clearly defined, that is distinct from other problems, whose solution can be fairly well anticipated, and that does not present unpredictable side effects. The problem structure of many sustainability issues is not such that these requirements are met.

### **Self-regulation**

A response to existing or presumed deficits of both command-and-control regulation and economic instruments is self-regulation by industry and/or other parts of civil society (Golub 1998; Rehbinder 1996). Environmental self-regulation may occur in the shadow of possible administrative or economic regulation (i.e., under the threat of the state adopting such regulation), as a result of institutional or organizational arrangements set by the state, or in a pure form without any state intervention. It is only in the former two cases that one can speak of flexible or soft “instruments”, although the delimitation between state-initiated or state-moderated regulation and pure self-regulation is not easy to draw. Even regimes of pure self-regulation may get inspiration from state institutions with respect to the targets pursued and the relevant criteria for implementing them. Forest certification is an example of a type of self-regulation in which the role of the state is very small (Cashore 2000) and that, from the perspective of the regulating state, is not an instrument of state policy in the strict sense. Consensus, information, and organization are the characteristic elements of self-regulation. Although there is a certain degree of overlap, one can coordinate particular types of self-regulation according to their focus on these elements:

1. Consensus: environmental agreements (i.e., contracts, covenants, and informal agreements between government and industry at the national, regional, or local level), good neighbor agreements, normalization, voluntary codes of conduct, and local policy networks (e.g. local agenda 21 groups);

2. Information: emission release information, classification and labeling of dangerous substances, product safety data sheets, eco-balances/product life cycle analysis, and eco-labeling, including forest certification;
3. Organization: environmental officers and directors, environmental management systems such as eco-audits and ISO 14001, environmental protection concepts within the firm.

It should be noted that eco-audit bears a strong information element; however, environmental management systems can also be used as strictly internal “accounting” instruments of self-regulation. Moreover, where environmental management systems are not regulated but based on normalization (e.g. ISO 14001), a classification of the instrument into consensus and organization instruments is appropriate.

Apart from the preceding characteristic features that relate to the object of the relevant instruments, one can classify instruments of self-regulation according to the degree of state intervention or, conversely, self-responsibility with respect to the environmental policy targets to be pursued and/or the institutional framework. The intensity of self-regulation is the product of both features (see Figure 1).

## **ECO-LABELING IN GENERAL**

### **Definition**

Forest certification is a special form of eco-labeling. Therefore, it appears useful to discuss the conceptual problems raised by certification in the broader perspective of eco-labeling (see Basse and Gaines 2000, pp. 73-77; Driessen 1999; Eiderström 1998; Staffin 1996, pp. 205-230; United Nations Conference on Trade and Development 1994).

Informing consumers (used in the broadest sense, i.e., including manufacturers and processors that use a product as raw material or as an intermediary product) about the properties of a product has a long tradition as regards the quality (economic properties, e.g., suitability for a particular purpose or safety) of a product. Examples include quality labels such as the international wool label or the European safety label for electric appliances. In parallel, environmental labeling has the objective of providing environmental information to consumers about specific products.

Normally, one distinguishes between environmental labeling in the broad sense and eco-labeling. Environmental labeling covers a broad range of programs and systems for the supply of environmental information that extend beyond the environmental properties of a specific product. It includes product labeling for which the producer assumes the sole responsibility (e.g. individual marks that claim particular environmental properties, e.g., “recycled paper” or “organic”, for a particular product). Such self-assigned labels raise the question of how the accuracy and completeness of the information expressed in the label can be ensured. Normally, the law on unfair competition is the only means of control that states provide for this kind of labeling. Environmental labeling also includes warning labels, which are often mandatory. Finally, one could include in the broader term corporate image

labels - that is, labels about the environmental performance of a firm that do not bear a direct relationship to a specific product, such as information in the form of a logo or about participation of a firm or a site in an environmental management program such as the European eco-audit scheme or ISO 14001.

Eco-labeling in the narrow sense comprises condensed or aggregated environmental information about a product in the form of a label whose accuracy and completeness is ensured by an independent evaluator. The task of the evaluator is to review information about the product and decide whether it qualifies for the label. Product-related information and independent evaluation (i.e. certification) are the decisive elements of eco-labeling. Independence from producers is considered necessary to ensure the elaboration of neutral criteria and their application to the individual product. The responsible body has three major tasks; namely, to define the eligible product category; develop the relevant environmental issues (i.e. criteria) regarding the use (i.e. quality) and production of the product, including the environmental performance thresholds that must be met by the products qualifying for the label; and, finally, to ensure that a specific product meets these requirements.

### **Award Bodies**

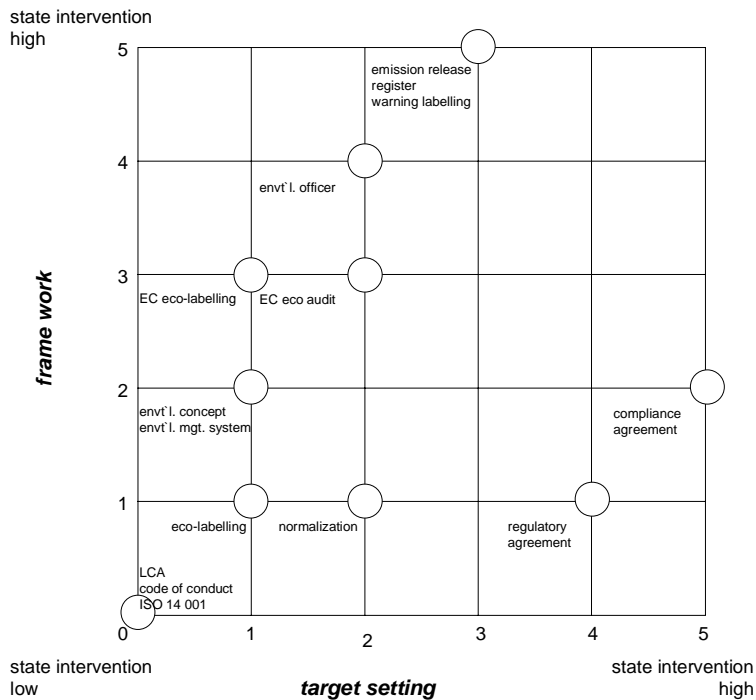
Eco-labels can be awarded by a state agency, a private body in which representatives of the government participate, or a purely private body. In Europe, there are examples of all three types of decision making (Neveling 2000, pp. 84-93, 229-236). For example, the European Community (EC) eco-label "European Flower" is awarded by member state agencies on the basis of criteria that are set by the Commission in a complex procedure that allows for a broad degree of participation by member states and interested parties (Regulation 1980/2000). By contrast, national eco-labels such as the German "Blue Angel" or the Scandinavian "Blue Swan" are awarded by pluralistic nongovernmental bodies on the basis of criteria developed by these bodies; however, they include direct representation of relevant government agencies (up to de facto veto power), which is designed to ensure compatibility with governmental environmental policy. Moreover, the labels get a certain degree of official recognition from the governments. One can say that these systems are built on private - public partnerships. Organic farming labels are awarded by various private bodies; they are based on minimum requirements set by an EC regulation but are further developed (normally, stiffened) by the relevant bodies managing the program. Likewise, the logo for environmental management under the EC eco-audit scheme is granted by a private verifier who must base his or her decision on criteria set forth in the EC eco-audit regulation (No. 1836/93, as amended by Regulation 761/2001 and implementing national legislation). Environmental management certification under the ISO 14001 scheme operates in a purely private fashion.

### **System Borders**

Another important distinction concerns the delimitation of the system borders; that is, the definition of the environmental issues to be covered by eco-labeling (Basse and Gaines 2000, p. 75; Staffin 1996, pp. 219-230). Basically, three different kinds of eco-labels can be

distinguished: labeling as to the environmental quality (properties) of a product, the production methods used in the manufacture, or the comprehensive environmental friendliness of a product. This last label includes a wide range of factors that reflect the full environmental impact of the product throughout its life cycle, from raw material through final use and disposal (this is known as life cycle analysis).

**Figure 1: Classification of instruments of self-regulation**



Purely quality-related eco-labels nowadays are rare, although one can sustain that in the German “Blue Angel” award scheme, environmental product properties still play a larger role than do criteria based on the environmental friendliness of the production process. Labels concerning environmentally friendly production methods may make claims to superior quality of the product, such as with organic farming. However, in most cases, such association between product properties and production methods cannot be made, and the information provided just takes account of a broader set of assumed preferences of consumers who value the product in part on the basis of the environmental impact presented by the production process. Life cycle analysis is an extension of this approach, covering a wider range of factors that are representative of the full environmental impact of the product. An example is the EC eco-label awards scheme. This scheme is based on a

comprehensive life cycle analysis of all environmental impacts associated with a product from cradle to grave; these impacts are used to define environmental criteria for the award of the label (although the recent amendment of the relevant regulation has attenuated the life cycle analysis element).

The criteria used for awarding eco-labels are mostly substantive in character. However, as regards production methods, procedural criteria may also be applied. This is particularly true of labels for sound environmental management, which claim to measure the environmental performance of a firm or a site operated by the firm but often focus or even limit themselves to the review of the environmental organization and management of the firm or site.

### **Subjectivity of Decision Making**

It goes without saying that all award schemes imply a number of subjective choices about the relevant criteria and performance thresholds by which compliance with the criteria can be determined. Independently of the organization of the award process, the definition of environmental criteria, determination of thresholds, and decision on the award of the label to a specific product heavily rely on experts. However, these decisions cannot be taken on a strictly objective (scientific or technical) basis. The more complex the award scheme is designed to be, the more subjective elements are bound to enter into the process. In particular, any eco-labeling scheme implies a valuation of environmental impacts presented by a product, a production process, or the full life cycle, according to their weight in relation to other impacts associated with the product, production process, or life cycle of the product, not to speak of the determination of the stringency of award criteria and trade offs with economic quality requirements (suitability and safety). Moreover, the definition of the system borders cannot be based on purely scientific or technical judgment, although conventions concluded by experts may alleviate the subjective choices. Even in case of life cycle analysis, the borders of the system must be determined in order to avoid an infinite regression. In this sense, the claim associated with eco-labeling that the label provides consumer information must be made relative. Rather, the label conveys ascribed valuations to the addressees of the message.

## **FOREST CERTIFICATION AS AN INSTRUMENT OF ENVIRONMENTAL POLICY**

### **Generalities**

Forest certification is a Janus-headed instrument of environmental policy that unites organization and information (or self-regulation and reliance on the market). Depending on one's preferences, an analysis of forest certification may emphasize either the former or the latter side of the coin. However, it does not seem an entirely false impression that the preoccupation of many authors with the more interesting aspect of self-regulation by civil society has led to a certain neglect of the market features of forest certification - to the point

that forest certification is described as a self-sustainable system for the functioning and survival of which the market no longer plays any role.

Forest certification is a process through which an independent organization assesses whether wood products use timber from forests that are managed in a sustainable way; this assessment is to reflect criteria and thresholds set forth by essentially nongovernmental bodies. Forest certification is therefore the basis of the awarding of a label to be used in dealing with consumers of wood products. Forest certification is a soft or flexible instrument of environmental policy, in that it uses consumer preferences and is enabled by environmental information to exert an influence on forest owners to employ sound management methods with regard to their forests. However, certification systems cannot do without a relatively high degree of formalization and control. The decision on the award is an administrative one. Moreover, certification systems devise and apply their own organizational monitoring and auditing schemes; they may even institutionalize complaint procedures and thereby come close to a system of adjudication. However, the award procedure as such is closer to administrative decision making than to adjudication (cf. Meidinger 2001, p. 10164). In a way, certification systems establish a second bureaucracy in addition to or more often in lieu of the existing administrative bureaucracy.

Although there are quite a number of national forest certification systems, the reality of forest certification is characterized by the dualism - coexistence and competition - of two major international forest certification systems, the systems operated internationally by the FSC and the PEFC, the latter of which is limited to Europe but has, since its establishment in 1998, surpassed the FSC system in terms of the forest area covered. There are differences between the two systems relating to the object of certification, the representation of groups of civil society in the bodies that run the system, and the degree of internationality (Bass and Simula 1999; Rametsteiner et al. 1998; Sprang 2001).

One essential difference between the two systems is in the kind of certification. Whereas in the FSC system, in principle every single forest enterprise is assessed, the PEFC awards eco-labels for whole regions, and the assessment is limited to taking samples. The criteria applied by the FSC are more complex in that they are not limited to the environment but cover the whole complex of sustainability, including social and economic aspects of forest management. The FSC is an NGO in which environmental, social, and economic interests from the north (developed countries) and the south (developing countries) are represented. Representatives of economic interests include not only forest owners but also representatives from wood processing and trade. The decision-making power of the organization is divided into three chambers - economy, environment, and social affairs, with northern and southern subchambers - which affords NGOs a high degree of influence. By contrast, the PEFC system is dominated by forest owners and the paper industry; forest owners have a clear majority in the national decision-making bodies. In addition to their minority position, the participation of noneconomic interests is provided at a relatively late stage of the process. There is also indirect governmental participation, because, in many European countries, the state and the municipalities are major forest owners. Finally, the FSC is an international body that has its own control facilities. However, in spite of the claims of true internationality reflected by the organizational structure as well as the basic

criteria, specification of these criteria is entrusted to the national subgroups of the Council. At least to a certain extent, this takes account of national particularities that may amount to an attenuation of the stringency of environmental requirements. The PEFC system is based on sustainability criteria developed by the Pan European conferences on forests, especially those held in Helsinki and Lisbon in 1997 and 1998, but it is essentially a collection of national systems with national control procedures. The “renationalization” of the process may reflect the - essentially correct - assumption that there is no simple, generally recognized (or even possible) definition of sustainability, and, hence, national preferences should be given some weight. It could also be explained by the desire to be able to take account of different factual circumstances, such as forest type, structure of forest holdings, forest work practices, and the like (Meidinger 2003).

## THE INFORMATION FUNCTION OF FOREST CERTIFICATION

### The problem of synthetic information

Forest certification labels do not contain any information about the environmental properties of wood products. Rather, they assume that the consumers’ valuation of the product also depends on information about the quality of the production methods. However, it is evident that these labels fall short of a comprehensive life cycle analysis, because the relevant criteria are limited to sustainability of forest management, excluding environmental impacts associated with inputs into forest management practices as well as wood processing. Thereby, they avoid valuation and weighing problems inherent in life cycle analysis. The advantage of delimiting the borders of the system in this way is that the instrument is bound to have a more direct influence on sustainability of forest management.

However, apart from the remaining subjectivity of valuations, the real problem is the filtering effect of the label itself. Because of lack of transparency, the label does not afford the consumer true information about various aspects of the sustainability of forest management practices related to a specific wood product. Rather, it contains synthetic (filtered) information that amounts more to a building up of confidence in the environmental friendliness of the product or other aspects of its sustainability than to a provision of information about the product (see generally Basse and Gaines 2000, p. 81). In particular, the consumer does not get information about which factors were evaluated under the labeling system or about to what extent the product complies with relevant criteria. Hence, the consumer cannot make his or her own choice according to his or her own valuation system but rather must rely on the summary assessment by the certification body.

In Germany, advertising the results of product tests has always been allowed as long as the tests have been carried out in a neutral, objective, and nondiscriminatory manner. By contrast, advertising eco-labels has been considered by the courts with much more reservation; normally, the court requires that the producer, apart from displaying the eco-label, also should name the grounds on which the label was awarded (BGHZ 105, 277). Both the EC and the German rules on eco-labels now expressly provide that the label can only be used to advertise products if the reasons for awarding the label are indicated. This is due to

the higher complexity of environmental friendliness as a product requirement as compared with simple suitability, although there is no denying that economic product certification requires a certain degree of subjective value judgment and trade off as well. In a society that emphasizes consumer sovereignty, the substitution of confidence labels for real information might indeed appear problematic. This is especially true of the criteria applied by the FSC, which, in keeping with the three-dimensional concept of sustainability, also include social and economic aspects such as tenure and customary use rights, fair returns, adequate benefits, the working environment, the impact on local and indigenous communities, and economic viability. Although some may see in this complex set of criteria an advantage and a true reflection of the three-dimensional concept of sustainability, from the point of view of consumer sovereignty, this mix seems to be particularly objectionable. The reduction of multiple factors into synthetic values according to which the label is awarded obscures differences in consumers' preferences for these factors. A product may be better in certain respects and worse in others. If the specific state of affairs is not communicated, the consumer cannot assess the product under selected criteria (Basse and Gaines 2000, p. 81). In particular, it must be noted that there is no objective value for trade offs, be they within the sphere of the environmental pillar of sustainability or within the economic and social pillars. There is no reason to assume that a consumer who has a major interest in environmental sustainability of tropical forests should also be interested in local working conditions or the viability of local and indigenous communities (unless, of course, this is a prerequisite for maintaining environmental sustainability). Of course, one can argue that because the certification process involves an independent review and affords the consumer an assurance that the product qualifies as sustainable under the defined criteria, the certification body acts as a virtual agent for the consumer.

#### **Competition between certification systems and information function**

Distortions of information may also ensue from the competition between the two systems and their national differentiation. The FSC claims that its program has ecological superiority because of its enterprise-based controls and its higher degree of international comparability. The FSC accused the PEFC of granting blanket certificates to a whole region and permitting nonindigenous species of trees. The PEFC, in defense of its system, refers to large areas of monocultures and the admission of large-scale clear-cutting in Northern Europe even if the forest is FSC certified (Weber 2001). Although from a legal-theory point of view this competition may be conceived as the strife for the "right" societal law, one cannot but suspect that, ultimately, both certification systems may suffer in their credibility and acceptance by the ultimate consumer. Independent research carried out in Germany suggests that, as regards environmental sustainability, the two systems are not far apart and that there are many commonalities (Thoro 2000, pp. 21-36). There seem to be more marked differences regarding the criteria of sustainable forest management from country to country within the two respective certification systems. In Germany, there are even forests that have been certified under both systems. However, this assessment is disputed (FERN 2001).

As can be seen by recent developments with respect to eco-labeling for organic farming in Germany, where there had been relatively strong competition between several

labels that made different claims of environmental friendliness of the farming practices under their control, it might be useful to develop an umbrella label under which a certain differentiation of systems can survive in order to ensure greater acceptance by the ultimate consumer. In view of the fact that, in contrast to the PEFC system, FSC certification rests on the three-dimensional concept of sustainability, this would only be feasible if the FSC introduced at least two separate labels - one for ecological and the other for social and economic sustainability. Apart from overcoming fruitless competition, the advantage of such a step is that it would improve the information function of the label. The alternative to such a strategy of uniting forces might be that, at the end, there is no single credible forest label.

### **Information and acceptance by consumers**

The success of certification systems ultimately depends on the preferences of and acceptance by consumers. It is true that the present discussion of forest certification sometimes conveys the impression that forest certification can be established and maintained as a self-sufficient system without consumers; then the label would simply function as a purely corporate image label. In support of such a position, one could point to the success of environmental management systems such as ISO 14001. However, environmental management systems largely rest on their perceived ability to unveil the hidden cost-saving potential of participating firms with respect to energy and resources consumption, the control of pollution, and the development of clean products. A comparable cost-saving potential arguably does not exist in sustainable forestry, at least not in all forest types (cf. Brockmann et al. 1996). If one assumes that forest certification entails extra costs, the concept of a self-sufficient forest certification system without consumers is not very realistic. Rather, wood processors and retailers who count among the most fervent supporters of forest certification, as well as forest owners and concessionaires, must earn the extra costs of certification on the market. If product differentiation through use of the label at an extra price is not accepted by a sufficient number of consumers, the market agents might abandon the label.

Therefore, economic theories about costs and benefits of ecological behavior, on the one hand, and theories about social-psychological interdependencies and the psychology of consumer behavior, on the other hand, must be included in any analysis of forest certification. Effective corrections of consumer behavior seem to depend on the convictions of the individual consumer about the effects of his or her actions, the expectations of other consumers, and the barriers for change that have to be overcome individually. Empirical results of consumer research suggest that environmental information must be oriented toward the needs of consumers, must contain a sufficient degree of detail in answering questions that many confront the consumer in using a product, and must emphasize environmental improvements and renounce general moralizing (Gottschalk 2001, pp. 209-281). To a certain extent, the more modest PEFC label corresponds more to these requirements than does the more ambitious FSC label, although both systems suffer from a lack of detailed information. One may argue that, in contrast to ecological product quality in the strict sense, the consumer is less interested in detailed information about production methods when these methods do not have a direct impact on product quality. Nevertheless,

given the concern of some or even many consumers about adverse impacts on global climate of deforestation in tropical countries, it seems that there is an interest in more detailed information, even with respect to timber production methods. Renouncing such information by concentrating on mere confidence labels may impair acceptance of the relevant wood products by environmentally conscious consumers, so that the market potential is not fully used.

## **ECOLOGICAL EFFECTIVENESS**

The certification criteria claim to ensure sustainable management by certified forest owners, concessionaires, and their managers. Although this claim is made relative by difficulties in defining and determining sustainability of forest management, in particular in tropical forests, one may assume that participation in a forest certification scheme at least leads to an improvement of forest management (Meidinger 1999, pp. 192-203). Seen from the perspective of the market for wood products, forest certification indirectly (i.e., via the demand chain, ranging from consumers, through trade, to various wood processing enterprises) reaches forest owners, concessionaires, and managers and influences their behavior. Therefore, as already stated, acceptance by a sufficient number of consumers is of primary importance. The extent to which one can expect such acceptance is controversial because, on the one hand, there are divergent estimates about the cost implications of sustainable forestry and, on the other hand, one has only vague ideas about the percentage of consumers who are interested in sustainable wood products (see Kühn 1999; Rametsteiner et al. 1998; Thiele 1999). Conservative estimates indicate that only 10-15% of the consumers may have this kind of sustainability-oriented preference. This assumption appears realistic because, although health-related food quality undoubtedly is closer to the heart of the consumer than is sustainable forestry, the market for organic food products in most developed countries has remained a niche market. Lack of consumer acceptance of forest certification is a strong limiting factor to its ecological effectiveness. However, because competition in a given market is shaped not only by the demand side but, to a certain extent, by offerers as well, acceptance by forest owners and concessionaires is also a crucial factor for the success of a forest certification system. Because of the lower cost of certification and a higher influence of forest owners on the operation of the system, the PEFC program has definite advantages in terms of acceptance by forest owners and concessionaires. This is evidenced by the figures relating to coverage by this system. Moreover, the extent to which sustainability of forest management is increased depends on the geographical scope of certification, the vulnerability of forests, and previous forest management practices.

In spite of the FSC certification system's focus on tropical forests, its influence on overall sustainability of the utilization of tropical forests is bound to be small (Staffin 1996, pp. 272-273; Thiele 1999). This is due to the fact that certification is presently limited for the most part to timber destined for exportation. Only about 30% of tropical timber is bound for export; moreover, at present, demand from East Asian countries such as Japan, South Korea, and China is not included in the system, although the major exporting countries in

this area, namely, Indonesia and Malaysia, participate in the FSC system. In African countries as well as Brazil, forest certification is more relevant because these countries mainly export to Europe and the United States. However, Brazil's share of timber exports in the whole of timber production is relatively small. One can estimate that only 10% of tropical timber can be covered by certification. As long as local timber markets are not developed and certification systems are not also applied to local timber consumption for any purpose, the impact of forest certification on sustainability will remain very small, even though one may expect certain learning effects of successful sustainable forest management for forest owners who do not adhere to a certification system. In addition, clear cutting for agricultural purposes is the major source of deforestation; it is not covered by any certification scheme. Therefore, more thought must be given to the problem that NGOs' concentration on forest certification may amount to a waste of human and institutional energy; it might be better to redirect forces to an improvement of regulation and implementation on the whole forested areas of a given country. The extent to which such a reorientation is a realistic alternative depends on various factors, especially on psychological factors, the problem of "sunk investment" and, last but not least, assumptions about the learning process that forest certification sets in motion for the whole forestry system.

The second factor influencing ecological effectiveness is the vulnerability of existing forests and the distance of present forest practices from sustainability. It is evident that, in both respects, there are fundamental differences between tropical and boreal forests and between management and use of tropical forests and forests in European countries. It is therefore not amazing that, according to empirical research, forest certification in Europe would not result in a substantial modification of forest management (Thoroe 2000, p. 22; cf. FERN 2001, pp. 18-21). However, it seems to be at least likely that, if nations comply with the FSC or PEFC guidelines, the development toward sustainable forest management will be reinforced. This is worthwhile, although one may wonder whether it justifies the costs incurred in establishing and operating forest certification systems.

### **Flexibility**

In assessing the potential ecological effects of forest certification, one must always take into account that a number of factors that shape the behavior of forest owners and managers are of a long-term nature and cannot be quickly adjusted. Therefore, in contrast to the eco-audit scheme that is primarily applied to industry, forest certification systems do not require a continuous improvement of environmental performance. It goes without saying that an ecological modification of the structure of forests that brings forests closer to a natural state requires a long-term approach. Forest certification could, at best, confirm that a particular forest owner is making reasonable further progress toward achieving this aim. Annual reviews of forest management practices, as provided in the new EC eco-audit regulation, may make sense with respect to cutting and other forest work practices. However, in view of heavy capital investment for machinery, quick adjustment to certification requirements may even pose problems with respect to cutting and other forest work practices. In any case, because the long-term nature of forest management is the decisive element of the

sustainability of forestry, the potential for building flexibility into a forest certification system is limited.

## **COHERENCY**

### **Generalities**

Forest certification systems should also be evaluated under the perspective of coherency (Meidinger 2001b, pp. 43 - 48). This has various implications. One can ask the question of whether forest certification systems are inherently coherent; that is, whether they achieve a satisfactory integration of environmental, social, and economic concerns and adequately fulfill their information function by creating transparent forest management practices with respect to different factual configurations, such as different countries and different forest types. Moreover, the problem of coherency relates to the compatibility with other eco-labeling systems. Furthermore, there is the issue of whether forest certification systems adequately take account of the mandates of a market economy. Finally, a positive assessment of forest certification systems also rests on the relationship between certification and regulation of forestry by the state. The question is whether forest certification, with its fairly independent target setting and associated monitoring and auditing mechanisms, has the potential to improve regulation of forestry or whether it has a potential to only duplicate or even impair it.

### **Internal coherency**

In contrast to the PEFC, the FSC certification system tries to integrate environmental, social, and economic aspects of sustainable management of forests. This corresponds to the Rio Declaration's three-dimensional definition of sustainability. However, the Rio Declaration empowers the signatory states to develop their own concept of sustainability. In industrialized countries with a functioning market economy and an adequate system of social security, it is problematic to pursue economic and social goals in a piecemeal fashion, product line by product line. Even against a background of relatively high unemployment, it does not really make sense to try and optimize employment in the forestry industry. This explains why the PEFC system renounces the inclusion of economic and social objectives. This is not an inferior type of forest certification but one that corresponds to the needs and possibilities in Europe. Even with respect to developing countries, one may doubt whether the integration paradigm prescribed by the FSC system has been and can at all be a full success. As regards the development of sustainability policy by state organs, it is undisputed that this is a largely open, incremental, and iterative policy process whose output cannot be determined in advance. Therefore, the question is why forest certification should fare better. Integration of environmental, social, and economic goals requires balancing all concerns against one another; it is difficult if not impossible to provide globally applicable criteria for making the necessary trade offs, not to speak of the necessity of taking account of the local situation. Award decisions reflect a socioculturally based understanding of sustainability, including the trade offs by the relevant national certification bodies and accredited experts. It

is entirely open whether this understanding and its application on the ground is “correct”; in any case, the central criteria do not ensure consistency of decisions.

From a trade perspective, the increasing globalization of trade in wood products makes an international harmonization of eco-labels in this field desirable in order to ensure equal access to the markets. The FSC certification system, through its international design, seems to highly correspond to this postulate. In this system, it is the task of independent accredited experts to make the assessment of different situations (e.g. different forest types) in different countries fairly comparable. However, because of the impossibility of generating clear-cut generic criteria that apply to living resources, the enormous differences between forest types, economic and social conditions, consumer preferences, and the residual human factor, the harmonizing effect of forest certification, even under the ambitious FSC system, is bound to be limited. National specification of criteria results in a certain renationalization of the certification process. Even in Europe, with its by and large comparable environmental, social, and economic conditions, a true harmonization of forest certification has not occurred. It is characteristic that, as already stated, some commentators assert that the true differences in forest certification do not lie at the level of the two competing systems, namely the FSC and the PEFC programs, but rather at the level of states, with their different forest types, different forest management practices, and different interests of forest owners. One may also doubt whether full harmonization is desirable from an environmental point of view, as consumer preferences are varied from one country to another (Basse and Gaines 2000, p. 27). If, for the sake of international harmonization, certain innovative solutions, such as ecological modification of forests or natural rejuvenation, are discarded when the award criteria are set forth, this may weaken the acceptance of the label in the relevant country. The concept of eco-labeling rests on the premise that the label, in order to influence the behavior of the producers, should reflect the environmental and other concerns on the relevant market. To this extent, some national differentiation appears appropriate.

#### **Relationship to other environmental certification schemes**

Another issue of coherency is the relationship of forest certification systems to other certification schemes, such as the EC eco-audit or the environmental management system under ISO 14001. Both certification schemes are general in character, so the forestry industry could participate in the scheme. As a matter of fact, there are isolated cases in which a firm has been certified both under a forest certification program and under ISO 14001. A fundamental difference between forest certification and eco-auditing is that the latter is not related to a particular product and the relevant production methods but rather is designed to comprehensively review the environmental performance of a firm or a site. This dissociation from a particular product explains why the EC eco-audit regulation prohibits the direct use of the eco-audit logo in marketing or advertising particular products; under national competition law, the same is true of ISO 14001. However, these differences between the two certification concepts are blurred when the producer essentially uses only one raw material and the same manufacturing process for all products, as is the case with wood processing. Furthermore, the eco-audit schemes are more demanding in that they require a continuous improvement of environmental performance, but, as has been argued, because of the long-

term nature of forest management, this requirement would be only of limited relevance in the field of forestry. Finally, both the EC eco-audit regulation and ISO 14001 emphasize the organizational aspect of environmental performance and contain few substantive criteria, apart from the basic requirement of continuous improvement of environmental performance and of compliance with applicable environmental law, or at least the ability of the organization to comply. In the ultimate result, there are overlaps but no true conflicts between forest certification and eco-audit schemes. However, one might consider inserting some of the organizational elements of the eco-audit into the forest certification programs.

#### **Potential conflicts with the logic of a market economy**

Forest certification reflects an intent to enlarge the spectrum of consumer preferences for wood products that can be expressed on the market. Although the inherent properties of wood products can be assessed more or less easily by the consumer, at least if the consumer is aided by conventional testing organizations, the lack of knowledge about sustainability of production methods keeps the consumer from expressing his or her values concerning these methods in his or her willingness to pay a higher price for wood products that come from sustainable forest management. Although, as already stated, according to conservative estimates only 10-15% of the consumers may have this kind of sustainability-oriented preference, it is entirely legitimate to open the marketplace to the expression of such preferences. Nevertheless, there is a certain inconsistency between private ordering expressed by forest certification schemes and market functions. This has to do with an aspect of forest certification that has already been discussed; namely, the substitution of confidence labeling for true consumer information. Only true consumer information enables the consumer to fully express his or her preferences in buying decisions on the market. In view of the distance between the largely scientific concept of sustainability and the ability of consumers to develop "proper" preferences, confidence labels may be acceptable when they are a synthesis of complex information relating to a clearly defined issue. This requirement is, in any case, not fulfilled with regard to the FSC program, with its integration of environmental, social, and economic aspects of sustainability. The labeling system assumes the existence of a multi-issue-oriented consumer, which arguably is at odds with the reality of consumer preferences and thereby impairs the expression of consumer preferences on the market.

#### **Forest certification and administrative regulation**

The final question in this context is that of possible conflicts with administrative regulation of forestry. It seems that general statements are not possible. Using a summary criterion of classification, one may distinguish between nonregulation (including regulation whose implementation and enforcement comes close to nonregulation), weak regulation, and strong regulation. True conflicts can only arise when a particular state pursues a determined policy of short-term conversion of its forest resources into revenue. In this case, sustainable management of forests by owners who follow the guidelines established by the certification scheme could frustrate national policy. If regulation is weak, without a clear policy in favor of speedy revenue generation, forest certification leads to an improvement of forest

management, either directly, with respect to forests covered by certification, or indirectly, by initiating a system-wide learning process about the need to achieve sustainability. Indeed, certification seems to have influenced the debate on sustainability both in industry and in government, and public forest owners sometimes even seek certification of their own forests. However, for most European countries, it is not very probable that forest certification will result in substantial impacts on regulation. Theoretically, forest certification could simply duplicate administrative forestry regulation; for instance, when a state has already taken the lead toward converting forest structure to a state close to nature or toward achieving economic and social fairness with respect to working conditions and participation of all actors in the revenue generated by forestry (cf. Cashore 1999). However, certification gives an impetus for forest management that is close to nature, encouraging mixed forests composed of forest species that are adjusted to location, prohibiting clear-cutting, in principle prohibiting the utilization of fertilizers and pesticides, requiring minimization of encroachments by forest works, and calling for an adjustment of game stock in order to allow natural rejuvenation. If these guidelines are complied with by a large number of forest owners during a long period of time, this may alleviate the tasks of forestry authorities, who can then concentrate their endeavors on strengthening the ecological aspect of forest management with respect to forest owners who remain outside the certification system. Moreover, certification involves a fair degree of monitoring and auditing beyond activities presently carried out by the forestry administration. Even in Europe, with its tradition of sustainable yield forestry and a recent tendency toward an ecological orientation of sustainability, the danger of duplication associated with welfare losses for society does not appear to be very real. Because forest certification programs require compliance with applicable law, their practical impact normally consists of superimposing on the existing body of state law additional requirements. In any case, these programs improve implementation and enforcement (Meidinger 2001b, p. 41 - 42).

### **Legitimacy**

Forest certification is a product of civil society, which fits into the observation that, under present circumstances of increasing complexity of societal problems, on the one hand, and the emergence of increasingly pluralistic values of individuals, on the other, the role of the state is in a process of transformation. However, the existence of self-regulation does not imply a perfect absence of the state. The task is to redefine the role of the state, both in the process of developing policy objectives and in that of implementation.

Although the certification process as such (i.e. the review of forest enterprises or forest areas and the application of the award criteria on the ground) is entirely entrusted to experts or the nongovernmental certification organization itself, there is a certain state influence on the development of the award criteria. In the PEFC system, the award criteria are based on guidelines developed by the Pan European Forest Conferences, especially those held in Helsinki and Lisbon in 1997 and 1998. State influence on the FSC criteria is less. However, it is undeniable that the relevant criteria largely rely on the Agenda 21 and the Rio Forest Declaration. Also, at a national level, where the basic award criteria are specified, the state forest administration may exert a certain influence in its capacity as forest owner. To this

extent, both systems reflect the concept of a public-private partnership, although the emphasis is clearly on the civil society element.

There are advantages and disadvantages of a stronger state involvement. Participation of the state increases the legitimacy of the label by introducing an element of checks and balances and granting the label a certain degree of official recognition; it facilitates renouncement to future, more stringent regulation or even promotes deregulation with regard to certified firms; it may enable better market access of certified products and preferential treatment in public procurement where permissible under relevant national and international trade law. However, in an international configuration, the presence of a multitude of states burdens the negotiation on implementing criteria and setting up the certification organization as well as the administration of the system once it has been established. In this vein, the greater presence of the state in the European certification system may be explained by a greater consensus about the basic requirements of environmentally sustainable forest management. Moreover, independent of the number of affected states, state presence may hamper the adoption of progressive positions with regard to award requirements. If the major source of institutional innovation is civil society rather than the state, the presence of the state is bound to be more of an impediment than a catalyst for progress.

Nevertheless, the legitimacy of forest certification systems with a dominant civil society element is not beyond doubt. The problem is not so much that these systems put the residual responsibility of the state for the public interest into question. Of course they do, in the sense that they function as ersatz legislation in the absence of state action. Forest certification systems may be denoted as a source of societal law, although, being voluntary law, they lack the generality of application that is characteristic of modern state-based law; they may be better characterized as neo-feudal law. In any case, forest certification systems are not closed autonomous systems of a global or national civil society that operate entirely outside the sphere of state law. State law retains a control as well as an enabling function. In a system of parliamentary democracy, when private ordering is substituted for organized decision making by the state, the state must retain and does retain a residual role for ensuring the public interest; the state must be able to either participate in the policy network as a moderator or supervise the process and eventually intervene to correct clearly inadequate results of private ordering. In addition, forest certification systems operate on the basis of the legal system in its enabling function as juridical infrastructure, as is best evidenced when one looks at the contractual element of the operation of the relevant organizations and the property features of the labels awarded. The residual state role is essentially ensured by the applicability, in case of controversy, of the law of unfair competition, which decides whether and under what conditions the eco-label can be used in marketing certified products. In exercising their control function, the courts can also establish minimum requirements regarding the objectivity, neutrality, transparency, and procedural fairness of the award process as well as regarding the need to supply additional consumer information in advertising the label. Moreover, controversies about the correct application of the award criteria can be adjudicated by state courts, unless the parties have opted for recourse to arbitration. Then the role of state courts is, in principle, limited to ensuring compliance with

fundamental notions of justice. However, the relevant arbitration awards would not be binding in third party unfair competition litigation.

The real problem of legitimacy relates to the contents of minimum requirements regarding the objectivity, neutrality, transparency, and procedural fairness of the certification process. One question is whether there should be requirements as to the legitimacy of the NGOs participating in the process - for example, their representative capacity, composition, openness, and democratic organization. Such requirements would be intended to impose some control over the self-appointed guardians of the public interest by introducing an element of checks and balances parallel to that on which the state-based political system rests. Another question concerns participation and transparency - that is, the composition of the relevant decision-making bodies in terms of balanced representation of all interests concerned and the transparency and fairness of the procedure used to decide on the award criteria. Formal rules on participation alone are only one side of the picture; it is well known that there are limits to real participation of NGOs in forest certification bodies because of the high manpower requirements and costs involved. Participation deficits can result in an unbalanced or even discriminatory definition of award criteria and impede the access of foreign producers to the market. However, there is a latent conflict between eco-labeling's objective of promoting the full expression of consumer preferences, which may justify a demanding concept of sustainability, and the interest in open markets. In any case, there are marked differences between the design of the FSC and PEFC systems in the degree to which they allow for stakeholders' participation.

If forest certification is essentially a civil-society-based process, one may well argue that safeguards for ensuring legitimacy that are developed in more or less close analogy to decision making by state organs are not appropriate. Private ordering by the civil society, be it national or transnational, is not by delegation from the state. It cannot be reintegrated into the state by the application of restrictive criteria for "recognizing" its results that reflect the logic of the state. This is even more true in a transnational context. All that suggests some restraint in developing demanding mechanisms for ensuring the residual responsibility of the state. A minimum requirement might be the rules set forth by the World Trade Organization Code of Good Practice of Eco-Labeling, established by the annex to article 4 (1) of the TBT-Agreement.

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