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Forest Policy, Criteria and Indicators, and Certification

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Abstract

This paper was presented as a position paper at the International Conference “The Nature and Culture of Forests” in May 2001 at the University of British Columbia, Canada. The conference brought together international scientists and policymakers in the field of Sustainable Forest Management.

This paper presents an overall concept for sustainable forest management and the strengths and weaknesses of the components of this framework. It is concluded that an efficient policy framework is needed in order to achieve sustainable development. A sufficient policy framework in this respect is missing in most countries today.

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Forest Policy, Criteria and Indicators, and Certification

Sten Nilsson

1 Introduction

While the goals for forestry can be generalized into a reasonably common concept of sustainable forest management, as has been done on the international level in recent years, the physical characteristics of the forests as well as the driving forces underlying the current forest situation are diverse. This implies a necessity to use a variety of tools to progress towards sustainable forest management. It is also important to stress that forestry is only one sector of society, while the need for sustainability encompasses all aspects of our societies. There are many strong links between forestry and several other sectors; links that often have a direct impact on the management of forests.

Criteria and indicator processes as well as certification have been seen as major tools to reach sustainable forest management. However, reliance on these tools is likely to be insufficiently successful. There are strong indications that other means must be also utilized — and particularly so when balancing conflicts between different goals, both within forestry and between forestry and society as a whole. Today, such mechanisms are largely missing, which decreases the value of the concept of sustainability. This is an important issue on the future political agenda (Presidency of the European Community, 2001).

2 Framework of the Sustainability Concept

There are common opinions that criteria and indicator and certification systems will solve the sustainability problems in forestry. But, as stated above, this is not the case as a number of additional tools are required. In the following paragraphs I will discuss my personal view on the framework of the sustainability concept in forestry, which I have sketched in Figure 1.

In order to discuss Figure 1, I will use Sweden as an initial example. I am selecting Sweden because a consistent policy framework exists. I do not necessarily agree with the content but I think the framework as such is a good illustration.

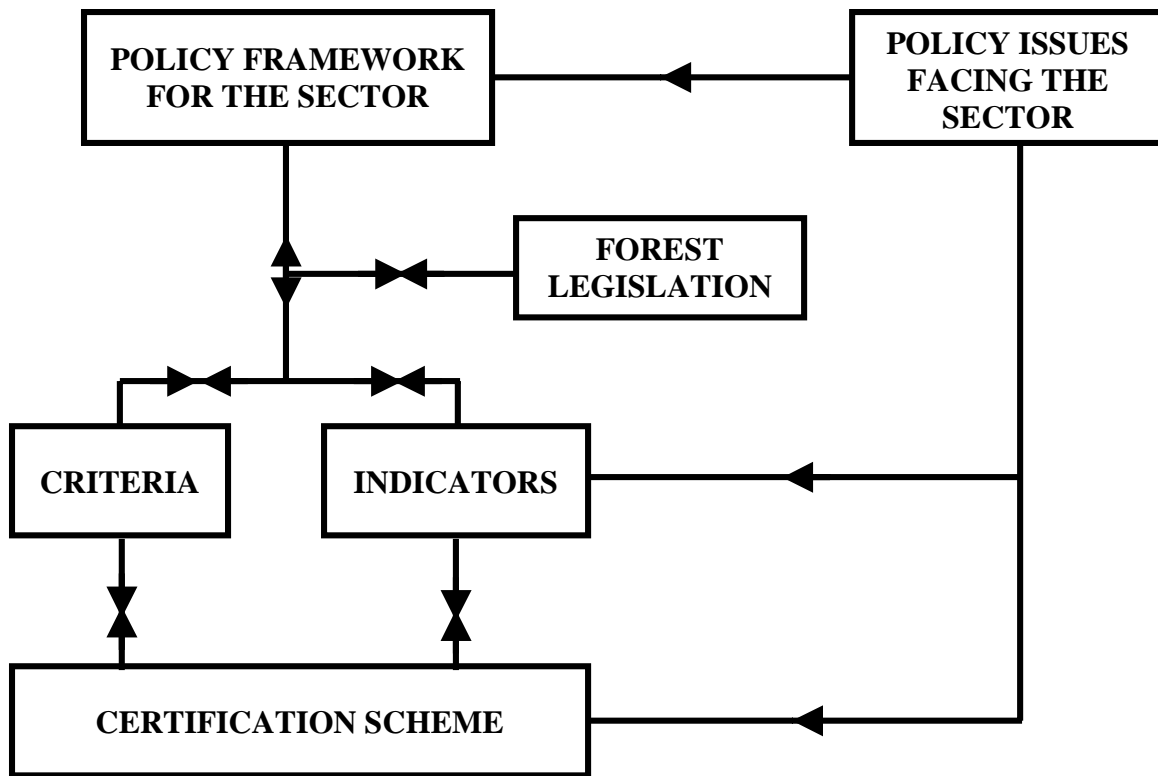


Figure 1: Framework of the Sustainability Concept.

3 Policy Framework for the Sector

The policy framework contains a number of elements: Overall Societal Goals for the Forest Sector, Overall Forest Policy, and Detailed Sector Goals for Sustainable Forestry (Tables 1 and 2).

The Overall Societal Goals state that the sector should make a positive contribution to economic growth, full employment, regional balance, high quality nature and environment, and remain an important export sector.

The Overall Goals of the Forest Policies are summarized in two aggregated goals: environmental and production goals. In turn, these goals are broken down to Detailed National Sector Goals for Sustainable Forestry. These National Sector Goals are also in the process of being broken down to Regional Sector Goals (National Board of Forestry, 2000).

Table 1: Policy Framework (Sweden as an example).

OVERALL SOCIETAL GOALS FOR THE FOREST SECTOR

The Sector shall contribute to:

- Economic Growth;
- Full Employment;
- Regional Balance;
- High Quality Nature and Environment; and
- Remain an Important Export Sector.

GOALS OF THE FOREST POLICY

ENVIRONMENTAL GOAL	PRODUCTION GOAL
<ul style="list-style-type: none"> • The natural production capacity of forest land shall be maintained. • The biological diversity and genetic variation of the forest shall be secured. • Species naturally belonging to forests shall have habitats for survival under natural conditions in vigorous populations. • Threatened species and nature types shall be protected. • The cultural aesthetic and social values of the forests shall be safeguarded. 	<ul style="list-style-type: none"> • The forest and forest land shall be utilized efficiently and very responsibly for a favorable yield. • The management of forest production shall create degrees of freedom with respect to utilizing the yield.

Table 2: Detailed National Sector Goals for Sustainable Forestry.

- Forests are a renewable resource. The forests should be managed so that they sustainably produce multiple values.
- In the management of the forests the possibilities for multiple use should be secured.
- Forest management shall be practiced in a manner that reindeer pasture is not hindered from access to forest land.
- Forest management shall be practiced in the whole country.
- Wood production should be dominated by coniferous species, but with a higher extent (volume) of deciduous species in the future.
- Forest management should result in wood production that makes a higher sustainable harvest level possible in the future compared with the current harvest level (to be quantified).
- The area of valuable and other deciduous species, as well as volumes, should be larger compared to the current situation.
- Forest management measures should be adjusted to site conditions and the natural and cultural values of a specific forest.
- The reforestations should have a density, quality and species distribution, which sequester the potential productivity of the forest soil and generate the conditions for high quality production. Seeds and seedlings of suitable origin. Natural as well as genetically improved material to be used.
- The young forests should have a species distribution, density, and quality that they efficiently utilize the soil productivity and generate a solid economic growth.
- Pre-commercial and commercial thinnings should be carried out at the right time, in the right manner and to a satisfactory extent.
- Forests in thinning ages should, for the soil conditions, have suitable species distribution and density.
- Damage on growing forests by insects, game and fungi should be limited.
- Forest management measures should be carried out in such a manner that negative impacts on the hydrology of the forest soils are minimized.
- The forest road network should be designed so that forest transportations can be carried out efficiently but at the same time, has limited negative impacts on the environments of nature and culture.
- The wood value should be taken care of and wood losses minimized.
- The utilization of the forests should be managed so that the natural production capacity is maintained, leakage of nutrients should be limited, and harvest of biomass should not harm environmental values.
- General nature and culture considerations should be made to a satisfactory extent.
- The forests should be managed from a forestry, historical, cultural, and ecological perspective. The ecological capacity of the forest ecosystems should be maintained or improved.
- Forest management in sensitive nature environments shall be carried out so that environmental values are maintained or improved.
- The extent of the forest land set aside as undisturbed protected areas for environmental reasons or are managed to protect and improve environmental values should be larger than today.
- Valuable cultural environments should be maintained and made visible.
- Forestry should contribute to human needs of high quality of the adjoining environment, recreation, and rich inspirations in forests and nature. The aesthetic values should be maintained.

Within the sustainability concept, I think the policy framework is the most important and crucial component. It is in this component that society should have an intense debate on setting the conflicting balancing goals. Both balancing of goals within the forest sector and between forestry and society is required. This is the process where we formulate what the society wants from the forest sector in the future. In general, I would argue that in *most countries this process is lacking, involving knowing what we want to do with the forests* (Nilsson and Gluck, 2001).

In addition, in most countries *a suitable policy framework is missing*. In the mid 1990s Ontario developed a promising policy process and a concrete Policy Framework for Sustainable Forests (OMNR, 1994) but unfortunately the concept was never implemented in practice.

Thus, there is a need to work with an objective oriented approach taking all development trends into account. Only once this has been done can a system of criteria and indicators be applied to determine how closely management is guiding the system towards the set goals.

4 Forest Legislation

Forest legislation is a tool that tries to move development towards the policy goals in the policy framework. But, in most countries (and in many countries there is no consistent legislation) forest legislation is not sufficient in order to reach the objectives of the policy framework. To reach these objectives forest political measures and voluntary actions by the forest owners beyond forest legislation are required.

5 Criteria and Indicators

Over 150 countries are currently involved in one or more international process that aims at the development and implementation of criteria and indicators for sustainable forest management (FAO, 2000; Palmberg-Lerche *et al.*, 2001). The ultimate goal with this system is to promote improved forest management practices over time taking into consideration the social, economic, environmental, cultural, and spiritual needs of the full range of stakeholders.

The transparency concerning the actual state and trends of forestry that follows from open dissemination of the indicators is, in itself, a vital tool and has resulted in improved international forest reporting (Duinker, 2000).

As an entity, the focus on “criteria and indicators” may be quite misleading. Criteria are a *set of core values*, while indicators are a *set of core data*. These two concepts are very different and I think it is important to see them as different concepts.

In spite of the positive sides of criteria and indicators, there are a number of limitations to consider:

- The strict hierarchy of the systems link individual indicators strongly with one single specific criterion.
- This may be misleading; a single indicator may constitute valid input also when applying other criteria.
- A major difficulty is that the quantitative indicators are not reasonably well defined, which causes confusion.
- Also, in many cases the qualitative indicators are so vaguely defined that they lose their meaning.
- Currently, there is an imbalance in the number and strength among economic, social, and ecological indicators.
- There are substantial conflicts and contradictions among the current sets of individual indicators (Nilsson and Gluck, 2001).

However, the major concerns deal with the linkage between the “criteria and indicator system”, the policy framework, and the sustainability concept. To focus solely on criteria and indicators is not likely to be productive from a sustainability point of view. As stated before, “criteria and indicators” constitute a core set of values and a core set of data, respectively. In executing sustainable forest management, it is necessary to use all relevant values and data and *not only core sets*.

A crucial prerequisite for criteria and indicators is that they promote a management that supports the policy goals identified in the policy framework discussed above. In most cases, the existing criteria and indicator systems have been developed within the framework of intergovernmental negotiation processes (International Tropical Timber Organization — ITTO, Montreal, Tarapotol Amazon, Dry Zone Africa, Near East, Lepaterique/Central America, Dry Forest Africa, African Timber Organization, and the Bhopal-India Process) without substantial linkages to the policy frameworks in the individual countries.

Therefore, there is a strong need to harmonize the current sets of national criteria and indicators with the national policy framework and in the cases where the latter is missing it urgently needs to be developed.

Duinker (2000) identifies that there are problems and pitfalls with criteria and indicators and that they are all indicative of a lack of discipline in: “(a) identifying and naming indicators, (b) classifying indicators, (c) evaluating indicator quality, and (d) applying indicators in the sense of generating useful data”.

Additionally, in the future it may be relevant to distinguish between three levels of indicators. The first is the international level, where the internationally agreed indicators are reported in a common format. The second is the national level. As stated, many countries have adopted a criteria and indicator system for the national level. A number of countries have added new national indicators to the internationally agreed set. A third level of indicators, which is needed in the future, are indicators adopted to regional or local conditions (Nilsson, 2000).

6 Certification

The original purposes of market-oriented certification are: (1) to improve the quality of forest management, and (2) to provide market advantage or improved access for products from sustainably managed sources (Bass and Simula, 1999). Certification of forest management is defined as an established and recognized verification procedure that results in a certificate on the quality of forest management in relation to a set of predetermined criteria based on an independent (third-party) assessment. Verification takes place through an audit. In assessing forest management quality it is established whether, in a defined forest area, the performance requirements expressed as criteria and indicators (standard) are complied with. The criteria are generally associated with sustainable forest management and may often consider various sets of internationally agreed criteria and indicators (Bass and Simula, 1999).

Most of the developments in forest certification have focused on market-oriented schemes, both performance-based (such as the Forest Stewardship Council — FSC and the Pan-European Forest Certification Scheme — PEFC) and management system-based (like ISO¹ 14001/4 standards). The boundaries between performance-based and management system-based types of certification are not clear-cut. The ISO 14001 standard requires that organizations have to define their *own* standards.

Despite the attention certification is receiving, and the substantial promotion given to it, certification is still in its infancy. Many certification systems are under development but only a small number are operational. Schopfhauser (2001) estimates that there are some 70 systems in operation or being developed currently worldwide.

FAO² (Bourke, 2001) estimates the global area certified to be about 90 million ha (excluding only ISO-certified areas — this is less than 3% of the world's forests). About 90–95% of the certified areas are in temperate and boreal forests in developed countries. Limited certification has taken place in tropical or developing countries.

Thus, there are reasons to see certifications and the criteria and indicators system as complementary efforts with largely the same final aim — to promote the sustainability of forest management. However, their functions are markedly different. As illustrated earlier, criteria stands for core values while up to date dissemination of results on indicators supply the status on core data. A certification standard constitutes an agreement between consumers and producers of forest products and/or services. I therefore see certification as a market instrument.

Contrary to many statements, the certification process in reality is not driven by demand from concerned consumers. It continues to be pushed, and in some cases forced, by environmental groups, retailers, city and regional councils, and forest owners who see a need to be able to prove their management in order to ensure access to some markets and/or get a market advantage over other suppliers.

The key to operate a certification system is the credibility of the system among the consumers. But to attain credibility in a market place is difficult. A minimum

¹ International Organization for Standardization.

² Food and Agriculture Organization of the United Nations.

requirement is the broad involvement and acceptance of a standard by a wide group of stakeholders. Process-driven by governments or other single stakeholders may fail in this respect. Another key to credibility is transparency. With a strong market connection, there are obvious risks that any system may be reduced to a public relations tool only. This can be illustrated by wood procurement policies. There is a strong link between Sustainable Forest Management and Wood Procurement Policies. In a recent study, Bull *et al.* (2001) state that the terms used in wood procurement policy developments by retailers and users are of the type “endangered forest” and “old growth” and the developments of procurement policies are strongly influenced by the Environmental Non-governmental Organizations (ENGOs). Thus, the terms are not standardized, are ill defined, not measurable (verifiable) and not widely accepted by all stakeholders. The best available tool would be a third-party independent certification linked with wood procurement policies. This is an example where a stakeholder group (ENGOs) takes actions with strong contradictions. On one side, they are acting strongly for the introduction of certification (FSC), and on the other, with respect to wood procurement policies (which is the most important component of the market), the same group is acting for the introduction of ill-defined terms like endangered forests, ancient forest, old growth, frontier forests, etc.

There are still many issues to be resolved with respect to certification. Bourke (2001) has identified some of these:

- What is the market for certified products?
- How will certification contribute to improving forest management where deforestation is greatest — in the developing countries?
- Will certification, intentionally or unintentionally, act as a non-tariff barrier to trade and discriminate against those unable or unwilling to become certified?
- How should wood from plantations and wood from areas being converted to other land uses be considered?

It is also important to point out that a large portion of forest products in developing countries are used for auto consumption, and never reach any market. About half of the world’s harvest is used for energy purposes and certification will have a limited impact on these volumes (von Mirbach, 1997). Therefore the global impact of certification is limited.

A number of limitations with certification have been outlined by von Mirbach (1997). These are: (1) certification does not provide an effective mechanism for internalizing social and environmental costs, (2) certification will not change bad land use decisions, and will not correct policy failures, (3) certification tends to discriminate against small producers, (4) certification is not efficient in addressing broad-scale issues, and (5) certification does not address many of the underlying causes of forest degradation and deforestation.

I think it is important to point out that most of the disputes over forest management are based on fundamental disagreements about values and there are limited possibilities that certification will solve these disputes.

My major concern about current certification is the same as for criteria and indicators, namely the missing link with the goals of the policy framework discussed above. *Certification systems without such links are likely to be a contaminating factor, since they may undermine the credibility of certification as such.*

Due to the fact that there are many certification systems under development, an industrial organization (CEPI, 2001) has developed a comparative matrix of forest certification schemes. The matrix has the objective of providing reliable information to customers and companies involved in paper and wood products, on the status of the schemes and the possible labels issued under them. The summary of the Confederation of European Paper Industries (CEPI) criteria for forest certification schemes is presented in Table 3.

The industry is also working on establishing an International Mutual Recognition Framework of the existing and coming certification schemes (Griffiths, 2001). The argument is that by having the different certification schemes working together, through a Mutual Recognition Framework, they could meet expanding market demand for certified wood products and assure retailers and their customers that certification systems participating within the framework produce substantively equivalent forest benefits in the field. However, other stakeholders are strongly against a Mutual Recognition Framework and I tend to think that this concept is flawed. A more constructive approach would be to explore in which ways different certification systems might develop independently from each other according to their particular strengths. Such an approach, where limitations in the existing systems are acknowledged, could help identify issues where current certification systems are weak. Only then, with this diversity of certification systems, can certification act as a true market tool.

7 Policy Issues Facing the Sector

The political, social, and economic conditions are changing rapidly. In order to cope with these changes the framework of the sustainability concept has to be adaptive and regularly revised in order to deal with these changes. *Without an adaptive concept with regular revisions* (or even emergency revisions), the existing Policy Frameworks, Forest Legislations, Criteria and Indicator Systems, and Certification Schemes *will be counter-productive from a sustainability point of view.*

Again, I will use Sweden to illustrate a number of serious issues facing the forest sector (Nilsson, 2001):

- Substantial amounts of less expensive imported raw material have become available and will increase over time.
- Substantial parts of the pulp and paper industry are sold to foreign companies and there is not a leading domestic company available to actively lead the consolidation process of the domestic industry.
- The saw milling industry has serious profitability problems and faces a substantial structural change.
- The forest industry is taking their forest land to the market in order to capitalize on forest capital.
- The sector has serious problems in recruiting suitable personnel at all levels.

These are survival issues and very serious sustainability problems facing the forest sector but none of them are dealt with in the current Policy Framework, Forest Legislation, Criteria and Indicator Systems, or the Certification Schemes.

This illustrates the need for adjustable and revisable components of the sustainability concept.

Table 3: Summary of CEPI Criteria for Forest Certification Schemes.

- Certification should be non discriminatory between types of forests and forest owners.
- Certification bodies should be independent and impartial with no commercial interests in the object to be certified, and be adequately staffed with qualified and experienced personnel.
- Certification bodies should be accredited at national level, through internally accepted methods of assessment and selection.
- Certification should include assessment against performance standards which are compatible with internally recognized principles and criteria of sustainable forest management.
- Certification should include assessment against internally recognized management system standards.
- Certification standards should be compatible with national forestry policies and regulations.
- Certification standards and institutional frameworks should be developed through a participatory consensus building process providing equal opportunities for all interests to become involved. No single interest should be allowed to dominate the process.
- Certification should be transparent so that all interests can identify and comprehend standards and institutional frameworks. There should be clear procedures and documentation.
- Certification should be repeatable, so that assessment by a range of certification bodies would produce the same results.
- Certification standards and procedures should be adaptive and regularly revised, so that they may respond to new knowledge of the forest and changing political, social, economic and environmental demands.
- Forest management certification should be cost effective and commercially viable. This entails minimizing the costs of certification and the costs of locally appropriate sustainable forest management.
- If the scheme aims to provide a single issue on-product claim of good forest management, this should be based on an independent third party audit of the chain of custody, using transparent and watertight procedures, from a certified forest area or region to the point of sale.

8 Linkages Between the Different Components of the Sustainability Framework

I have stated my opinion that a solid Policy Framework is compulsory for a successful Sustainability Concept. This framework and its goals produce the guidelines for the criteria and indicator systems and the certification schemes, respectively.

But there is also the possibility that a well defined and efficient criteria and indicator system can generate feedback to a more efficient policy formulation and policy framework. In a similar way, there can be a major connection between criteria and indicators on the one hand and certification systems on the other, if the criteria and indicator systems are so clearly and appropriately defined that they can be used for formulating certification standards. In addition, it is crucial that the policy goals of the policy framework, channeled through the criteria and indicator system, are reflected in the certification system.

Some argue that certification may act as input to the policy making process and contribute to sustainable forest management (e.g., Simula, 1999). But this is strongly debated. The Presidency of the European Community (2001) states: "it appears unlikely for any certification system to be able to disregard vital components of sustainability as understood in the international forestry policy dialogue but from there to deduce a strong link is hardly a viable conclusion". Bourke (2001) states that it is doubtful if the certification taking place so far has contributed to sustainable forest management. von Mirbach (1997) concludes that certification can be a tool to help but is not the only one or necessarily the best one. Thomson (2001) argues that certification has not so far delivered the benefits it had promised to deliver. On the other side, Bull (2001) argues that the certification process has improved sustainability in British Columbia.

Personally, I argue that certification cannot contribute to sustainability unless the process agrees with the policy goals of the policy framework.

My general conclusion is that to focus solely on criteria and indicators or solely on certification schemes (or a combination of these), which is the case today, is not likely to be productive with respect to improving the sustainability of forests. We have to work with the complete framework for sustainability and within this framework debates, analysis, and the formulation of the policy framework are neglected to a large extent.

With respect to the criteria and indicator systems and especially the certification systems, the future relevance of the systems in the sustainability concept is maybe less a question of the quality of environmental management but more a question of trust. If the organizations deeply involved in the development of these systems cannot develop some trust in each other, the public and the customers will not trust the systems either and the efforts will be just a waste of resources.

9 Comparison Between National Sector Goals and Certification Systems

I will again use the Detailed National Sector Goals from Sweden as an example (see Table 2). I have compared these goals with the two most common certification systems, namely FSC and PEFC.

FSC uses a set of ten principles and related criteria. PEFC uses the 6 Pan-European Criteria for Sustainable Forest Management and related guidelines. I have tried to allocate these principles and criteria respectively to the set of presented detailed national sector goals. This is a delicate task to do due to the fact that the Principles/Criteria and Criteria/Guidelines respectively are very generally formulated. Therefore, some would argue that the principles and criteria very well take care of the detailed national sector goals. However, I would argue that this is not the case.

A number of the goals are not covered at all by the certification systems and in most cases the certification systems, even if they are in general terms pointed in the “right” direction, do not catch the gist of the goals at all. In addition, the certification systems can only in few cases verify or quantify the compliance of the detailed goals. The comparison carried out shows that the certification systems can only deal satisfactorily with about 30% of the detailed sector goals (see Table 4).

This illustrates how difficult it is to formulate meaningful general standards and it also illustrates that certification systems have a rather limited impact on the overall sustainability issue and, additionally, it demonstrates the need for the development of solid policy frameworks in the sustainability process.

10 Example of Certification in “Troubled” Countries

As stated earlier, the majority of existing certification has taken place in developed countries in the Northern hemisphere but very little has happened in this respect in the developing and tropical countries. Another “troubled” country is Russia, which is in transition, and is bound to be a major player on the international forest product markets in the future.

The Russian forest sector has many problems that substantially influence the possibilities for sustainable management. These problems are not discussed here and I refer to Nilsson and Shvidenko (1998) for further reading.

In the following paragraphs I apply Figure 1 to the Russian conditions. It can be concluded that Russia lacks any policy framework with respect to the forest sector (Nilsson and Shvidenko, 1998). There is a forest legislation, which stipulates the organization of the forest management, forest management principles, rules for forest utilization, rules for and organization of protected areas, rules for and organization of forest reproduction, rules for utilization in protected areas, regulation of trade, etc. In addition to the Forest Code, there are about another 15 laws influencing the forest sector.

Table 4: Detailed National Sector Goals for Sustainable Forestry.

Principles/Criterion		Detailed National Sector Goals for Sustainable Forestry
FSC	PEFC	
5	1	Forests are a renewable resource. The forests should be managed so that they sustainably produce multiple values.
5	3,6	In the management of the forests the possibilities for multiple use should be secured.
(10.2)?		Forest management shall be practiced in a manner that reindeer pasture is not hindered from access to forest land.
		Forest management shall be practiced in the whole country.
		Wood production should be dominated by coniferous species, but with a higher extent (volume) of deciduous species in the future.
		Forest management should result in wood production that makes a higher sustainable harvest level possible in the future compared with the current harvest level (to be quantified).
		The area of valuable and other deciduous species, as well as volumes, should be larger compared to the current situation.
(7)	4 (6.1)	Forest management measures should be adjusted to site conditions and the natural and cultural values of a specific forest.
10?		The reforestations should have a density, quality and species distribution, which sequester the potential productivity of the forest soil and generate the conditions for high quality production. Seeds and seedlings of suitable origin. Natural as well as genetically improved material to be used.
10?		The young forests should have a species distribution, density, and quality that they efficiently utilize the soil productivity and generate a solid economic growth.
		Pre-commercial and commercial thinnings should be carried out at the right time, in the right manner and to a satisfactory extent.
		Forests in thinning ages should, for the soil conditions, have suitable species distribution and density.
(10.7)	(4.2)	Damage on growing forests by insects, game and fungi should be limited.
6 (10.6)	5	Forest management measures should be carried out in such a manner that negative impacts on the hydrology of the forest soils are minimized.
		The forest road network should be designed so that forest transportations can be carried out efficiently but at the same time, has limited negative impacts on the environments of nature and culture.
5	1	The wood value should be taken care of and wood losses minimized.
6	(3)	The utilization of the forests should be managed so that the natural production capacity is maintained, leakage of nutrients should be limited, and harvest of biomass should not harm environmental values.
		General nature and culture considerations should be made to a satisfactory extent.
(6)		The forests should be managed from a forestry, historical, cultural, and ecological perspective. The ecological capacity of the forest ecosystems should be maintained or improved.
		Forest management in sensitive nature environments shall be carried out so that environmental values are maintained or improved.
		The extent of the forest land set aside as undisturbed protected areas for environmental reasons or are managed to protect and improve environmental values should be larger than today.
(3.3)		Valuable cultural environments should be maintained and made visible.
(5)	(6.2)	Forestry should contribute to human needs of high quality of the adjoining environment, recreation, and rich inspirations in forests and nature. The aesthetic values should be maintained.

The Forest Code stipulates the establishment of “Criteria and Indicators for Sustainable Forest Management in the Russian Federation” that came into force in July 1998. The Russian Criteria and Indicator System is officially based on the Pan-European system for European Russia and the Montreal list for the rest of the country. The fulfillment of implementing the criteria and indicator system rests with the Ministry of Natural Resources (formerly the Federal Forest Service). However, we have tried to follow-up in the field on how enterprises and regions are reporting on the criteria and indicators to the Ministry of Natural Resources. Through our sampling we have not been able to detect any reporting on the criteria and indicators to the responsible authority. Therefore, there are high probabilities that the established Russian Criteria and Indicator system is just a paper product.

In the Forest Code, Article 71 states that a *mandatory certification system* should be established in Russia. Strakhov and Miettinen (2001) have described the mandatory system being established in Russia.

In Russia, the administration of certification and standardization is carried out by the Russian Federation’s Committee on Standardization, Metrology and Certification (Gosstandart). The Ministry of Natural Resources is the authorized federal body of executive power of forest certification. The system of State Forest Inventory and Planning Enterprises (of the Ministry of Natural Resources) provide the premises and data to the Central Forest Certification Body and Forest Certification Centers.

The current set of criteria comprises of 24 normative documents (resolutions by government, president, orders of the former Russian Federal Forest Service, etc.). The mandatory certification system is now being tested in a number of regions in Russia. For a more detailed description of this system, see Strakhov and Miettinen (2001).

Thus, we have a system under development, which more or less ends up with the forest owner, forest management and certifier in one and the same body. The system is based on normative legal documents in a country, where nobody seems to follow any legal documents with respect to forestry (e.g., the illegal harvesting varies between 30–50% in different regions of the country). Therefore, it is most plausible that certification documents will exist in Russia in the future but they will have little relevance to the international debate on sustainable forest management. In addition, mandatory reporting has proven to have many pitfalls in other cases (e.g., Scott, 2001).

In the case of Russia, we have major holes in the Sustainability Framework and the Institutional Framework is not in place to deal with this issue. Under these conditions, criteria and indicator systems and certification systems will hardly have any impact at all on the sustainability issue.

I am afraid that we have similar conditions to those in Russia in many developing countries.

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