

Forest Certification in Latvia

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Forest Certification in Developing and Transitioning Societies:
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ABSTRACT

Despite its small size, Latvia has a considerable amount of forested land (44% of its total area), over 150,000 private forest owners, and an economy that is highly dependent on timber as its primary natural resource and main export product. These factors make Latvia an interesting case in which to follow the development of the forest certification process. The two certification standards currently operating in Latvia are FSC and PEFC. This past year Latvia's State Forests (the State Joint Stock Company charged with management of about one half of Latvia's forestland) completed certification of its forests under FSC. In addition, the Riga municipal forests are certified (primarily under FSC), and a growing number of hectares of private forested land are coming under group certification through both FSC and PEFC. At this point all indications point toward FSC as the preferred and better known certification scheme in Latvia. Though it is too early to tell what the full economic and ecological implications of certification will be, one significant effect of the certification process so far has been to improve communication among all members of the forest sector.

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ACRONYMS

FOA – Forest Owners’ Association

FSC – Forest Stewardship Council

IG – Initiative Group for Development of a Certification Standard for Latvian Forestry
[i.e., WWF Working Group]

LFCC – Latvian Forest Certification Council

LVM– State Joint Stock Company “Latvia’s State Forests” (*Latvijas valsts me_i*)

PEFC – Pan-European Forest Council / Platform for Endorsement of Forest Certification

SFS – State Forest Service

WWF – Worldwide Fund for Nature

I. INTRODUCTION

The Republic of Latvia regained independence in 1991 after having been occupied by the Soviet Union since World War II. The population of Latvia is 2.35 million people, and its size is 64,600 square meters. There are 2.9 million hectares of forestland in Latvia, of which approximately one half is owned by the State. In addition, Latvia has over 150,000 private landowners. Together they own 1.2 million hectares of forestland, with an average parcel size of 8 ha. With forest products comprising roughly 40% of the total export economy, it is said that Latvia is the country most dependent on forestry in all of Europe.

The forest certification movement began in Latvia in 1995 with the formation of the Latvian Forest Certification Council. By 1997 work on the certification process had moved into the offices of the Worldwide Fund for Nature's Latvian Programme Office (WWF Latvia). This initiative began to focus on certification under the Forest Stewardship Council (FSC). It is from this working group that Latvia's National FSC Standard ultimately emerged in 2003. The draft Standard is currently under review by the FSC secretariat. According to the FSC International website (www.fsc-info.org), there are currently 1,685,932 ha of state, municipal, and private forest lands certified under FSC.

A parallel certification process was begun in 1999 by the Forest Owners' Association. This organization focused on developing group certification, primarily for small private forest owners, based on Pan-European Forestry Council (PEFC) standards. As of March 2003, 17,500 ha of private forestland has been registered under the PEFC group certificate in Latvia.

One of the most significant developments in the certification process in Latvia has been the certification of all state-owned forests. This process was completed in January 2003 by Latvia's new government institution for forest management – the State Joint Stock Company *Latvia's State Forests* – or LVM as it is known locally.

At this point it appears that FSC is the more widespread standard in use in Latvia today. FSC certification is available to and used by a wider array of forest managers and industries – by individuals, corporations, groups, municipalities (in particular Riga city forests) and the state forest management agency, LVM.

Despite differences between the two standards, supporters of both FSC and PEFC agree that the certification process in Latvia has helped bridge gaps and improve communication and cooperation among all stakeholders in the forest sector.

II. BACKGROUND FACTORS

Ownership and Tenure

Land restitution

The current land tenure regime in Latvia was established after the country gained independence from the Soviet Union in 1991. One of the priorities of the new Republic was to restore pre-1945 property rights by returning land to its previous owners or their next of kin. The purpose of land restitution was to restructure the legal, social and economic aspects of land use and property in the Latvian countryside, in order to renew the traditional Latvian rural lifestyle. This large-scale process created 164,232 private landowners with an average parcel size of eight hectares (Pelane 2000). Together, private landowners own just under one-half of Latvia's forestland.

This highly fragmented land ownership structure might turn out to have important implications with respect to forest certification on private lands. Because of the small average parcel size, many forest owners do not receive significant regular income from their forest holdings; on the other hand, the certification process requires a significant financial investment. In addition, there is no market demand for certified wood within Latvia. There is approximately twice as much timber processing capacity (i.e. sawmills) in Latvia, as there is supply of raw lumber. Therefore, the small forest owner who might harvest some wood for supplemental income generally has no difficulty finding a local timber buyer who does not demand certification.

The forest sector in Latvia is poorly organized. According to the Latvian Forest Certification Council (LFCC 2001), not more than five percent of forest sector enterprises are members of Trade Associations. Similarly, not more than five percent of private forest owners are members of the Forest Owners' Association – Latvia's only such organization, and a for-profit cooperative at that. There is only one forest sector Trade Union, which has 5000 members, out of an estimated total of 50,000 employees in forest-related jobs in Latvia (WWF Latvia 2003).

Table 1. Forestland Ownership (Ministry of Agriculture 2003)

Owner	Size (hectares)
State	1,430,000
- Latvia's State Forests (LVM)	1,370,000
- Scientific	10,000
- Environment Ministry	50,000
Private	1,200,000
Other	220,000
TOTAL	2,850,000

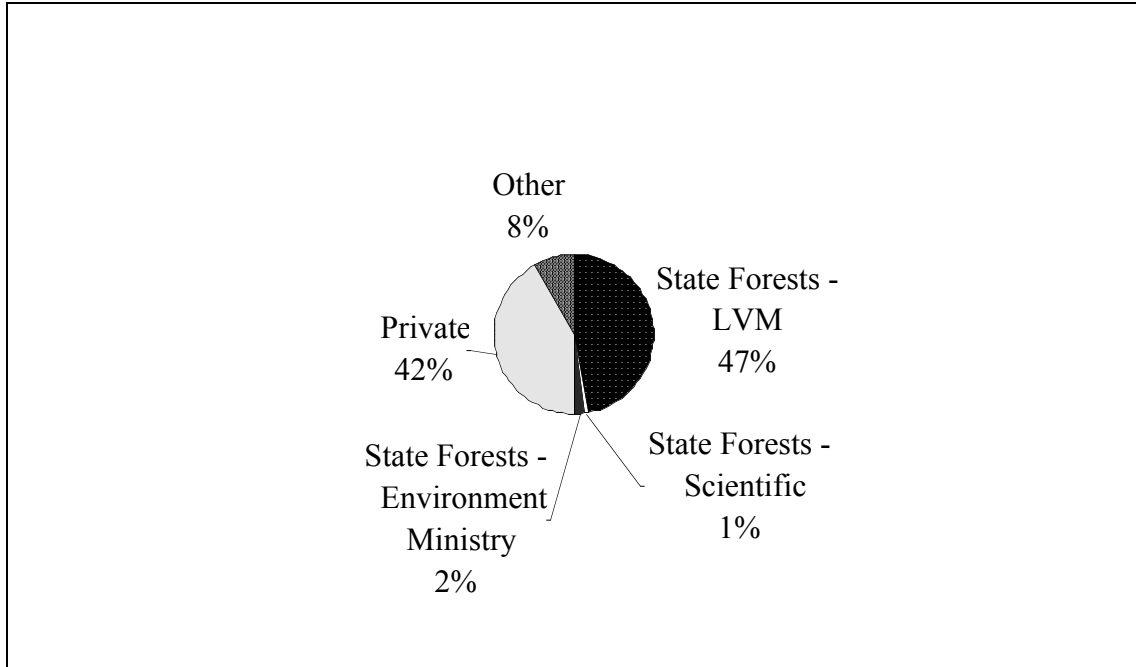


Figure 1. Forestland Ownership Percentages

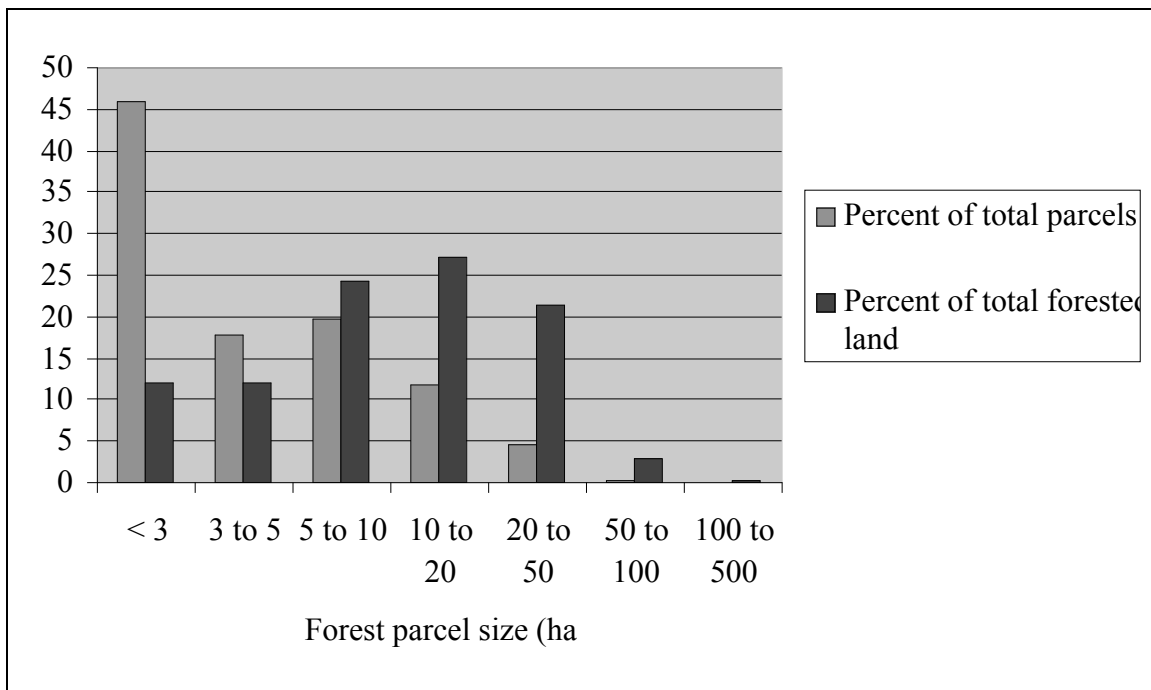


Figure 2. Individual Land Ownership Structure (Ministry of Agriculture 2003, p.12)

Forest licenses

Licenses for timber cutting are granted to private forest owners upon completion of a forest inventory and management plan, usually completed with the assistance of the local State Forest Service (SFS) ranger. Latvian forestry law prescribes minimum ages for felling of each

tree species, as well as maximum sizes for clearcuts and other environmental restrictions. Forest owners or legal managers can remove up to 10 m³ of firewood annually without a cutting permit.

Forest sector reform and governance

The forest sector in Latvia saw a major reform in early 2000 with the founding of the State Joint Stock Company *Latvia's State Forests* (abbreviated in Latvian as "LVM"). The purpose of this reform was to separate the government's forest management and oversight functions. As a result, oversight functions remained with the State Forest Service, while management authority was transferred to LVM. Hence, LVM is the major government institution dealing with forest certification.

Between 1940 and 1991, under the German and Soviet occupations, Latvia's forest governance structure was changed 12 times. None of these restructurings separated the forest sector's main functions: forest management, supervision and legislative functions. Even after the regaining of independence and the founding of the State Forest Service in 1993, these functions were still not separated. This situation created internal conflicts of interest, and did not facilitate the further development of the forest sector. In late 1999 and early 2000 the forest sector was radically reformed. Three independent governmental institutions were established:

1. The Agriculture Ministry's Forest Sector, comprised of two Departments, has a normative function, coordinates international efforts and informs the public about trends and developments in the forest sector.
2. The State Forest Service (SFS) oversees forest management on state-owned and private lands.
3. The State Joint-Stock Company "Latvia's State Forests" (LVM) conducts forest management on state lands.

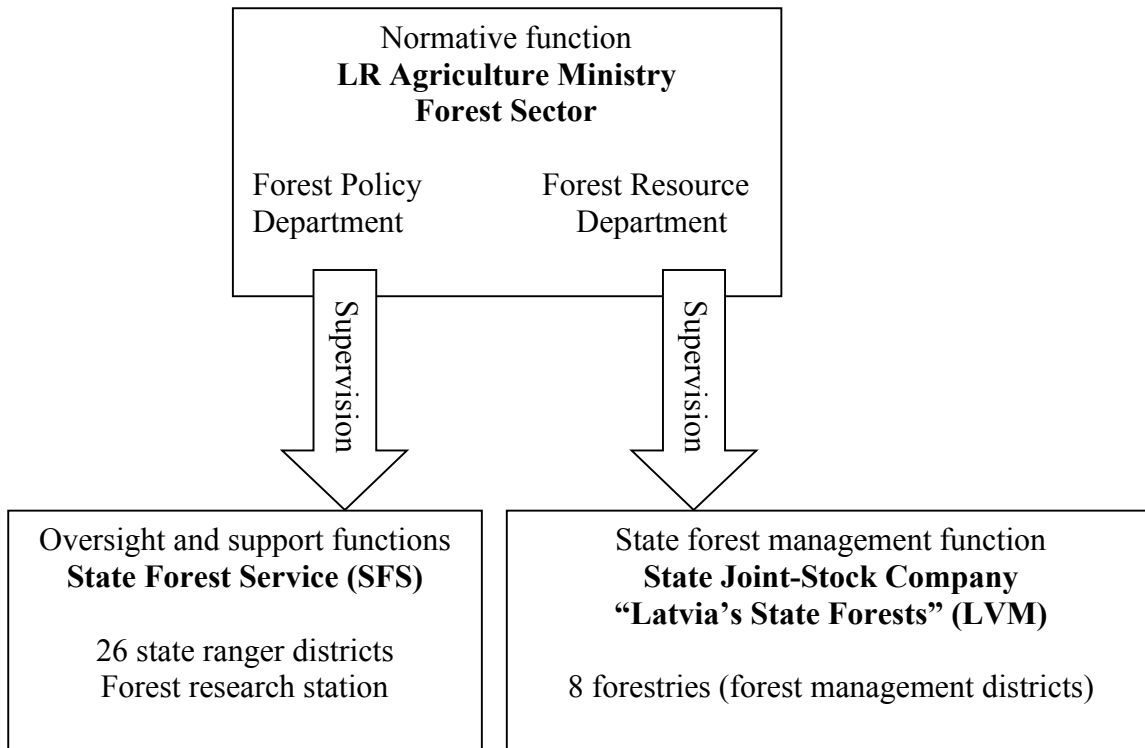


Figure 3. Structure of Latvian forest governance (Ministry of Agriculture 2003, p.4)

Structure of LVM

The mission of LVM is “to ensure to the forest owner and the public the maximum benefit that can be achieved by sustainably managing the forest property entrusted to it. LVM contributes to creating a harmonized natural, social and business environment” (LVM Mission, Vision 2004).

As Latvia’s main forest management agency, LVM is divided into three departments: Forest, Seeds and Plants, and Roundwood Deliveries. The Seeds and Plants area, as the name implies, conducts tree and plant nursery functions. The Forest sector is responsible for mineral rights management, hunting and recreation services, as well as forest management. The Roundwood Deliveries department is responsible for the production and sale of round timber products. All three departments also provide consultation services. LVM manages 260 km of logging roads.

Forest management work on LVM lands is done by outside contractors – contracts are awarded through a competitive bidding process.

Table 2. The Forest Management Cycle in Latvia (Ministry of Agriculture 2003, p.6)

Stand Age	Forest Management Activity	Current stage of LVM forests
0-3 years	Reforestation	11,000 ha (including 3,500 ha in natural regeneration)
2-20 years	Precommercial thinning	27,000 ha
30-65 years	Commercial thinning	18,000 ha
80-120 years	Final felling	11,000 ha

Markets

Latvia has a strong export oriented forest and wood processing industry, producing sawn timber, plywood, veneer, fiberboard and particleboard, glue laminated articles and furniture. Wood processing and logging operations are fully privatized. The main export markets for Latvia are in Europe, UK being a leading market for sawn timber, also plywood and wood based panels. According to government statistics, 80% of Latvia's timber production is exported, with 48% of total exports going to the European Union. This accounts for 40% of the national export economy. The majority of forest exports consist of sawn wood, furniture, firewood and roundwood. The forestry import volume comprises 1.3% of Latvia's total imports. The majority of forestry imports consist of cellulose, paper products and furniture.

Table 3. Forest Sector Export and Import Comparison

Product	Export			Import		
	1000 (units)		1000 USD	1000 (units)		1000 USD
Sawn wood	3253	(m³)	524,381	460	(m³)	54,515
Conifer	2621	(m ³)	437,245	380	(m ³)	51,712
Hardwood	632	(m ³)	87,136	80	(m ³)	2803
Roundwood	3922	(m³)	131,417	459	(m³)	25919
Conifer	1765	(m ³)	61,838	279	(m ³)	12,756
Hardwood	2158	(m ³)	69,579	180	(m ³)	13,163
Furniture			116,016			42,470
Fuelwood	2171	(t)	89,181	6	(t)	285
Wood chips	1307	(t)	47,599	1	(t)	47
Plywood	147	(m³)	85,735	7	(m³)	2,057
Joinery manufacture	90	(t)	79,175	4	(t)	7,759
Veneer	14	(m³)	17,575	1	(m³)	1,554
Chipboard	130	(m³)	16,263	50	(m³)	12,893
Hardboard	30	(m²)	65	3582	(m²)	10,087

Table 4. Domestic Forest Sector (Lursoft data base 2004)

Type of Production	Number of Businesses
Forestry and forest management (excludes ~150,000 small private forest owners)	~ 4000
Timber product manufacturing	~ 1400
Furniture and related products	~ 1800

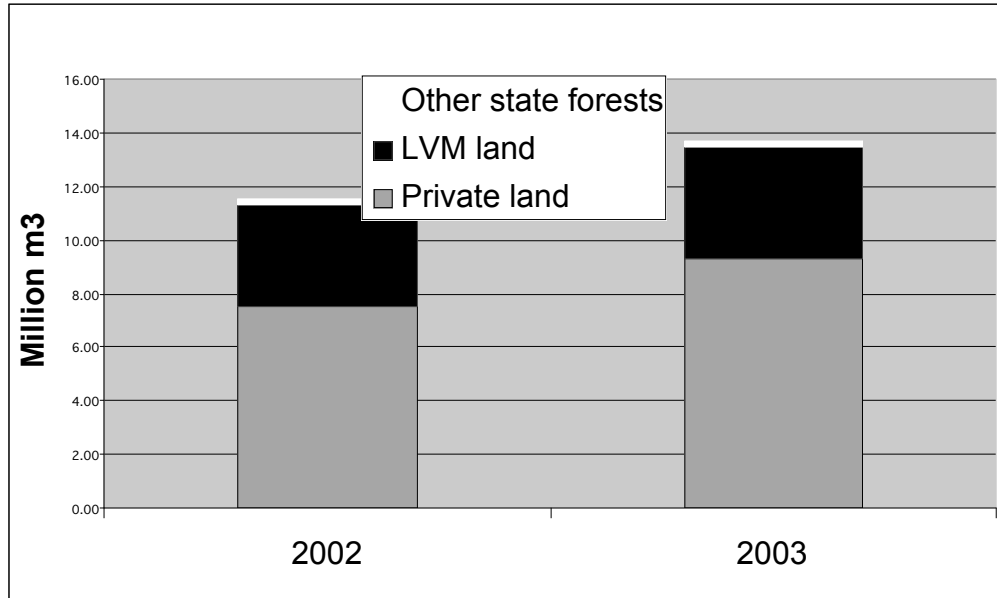


Figure 4. Logging Volume by Year

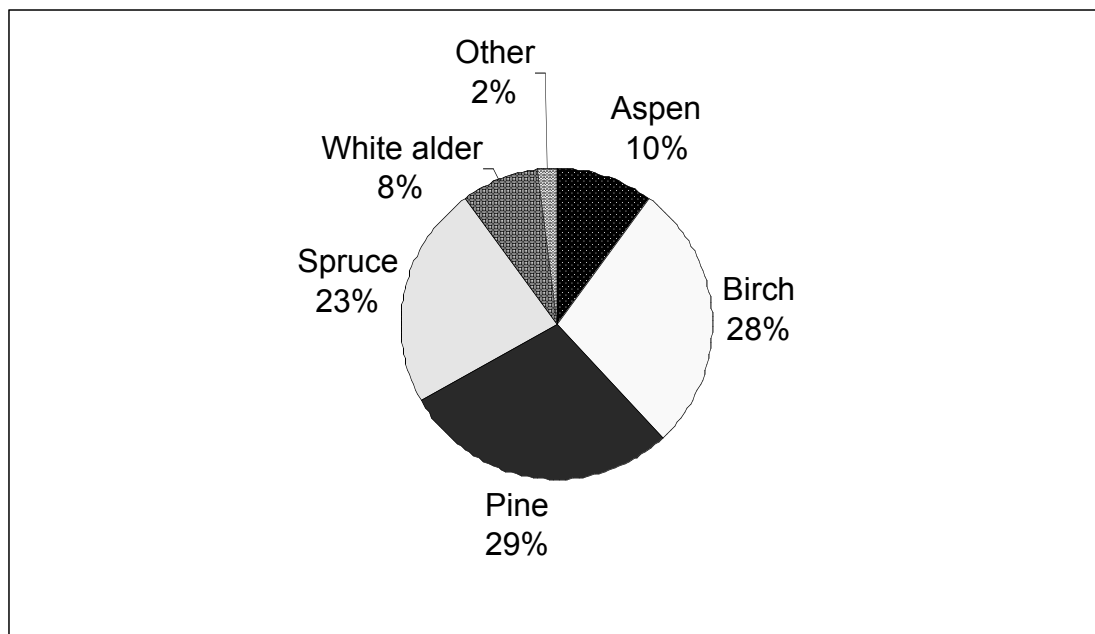


Figure 5. Forest Production by Species

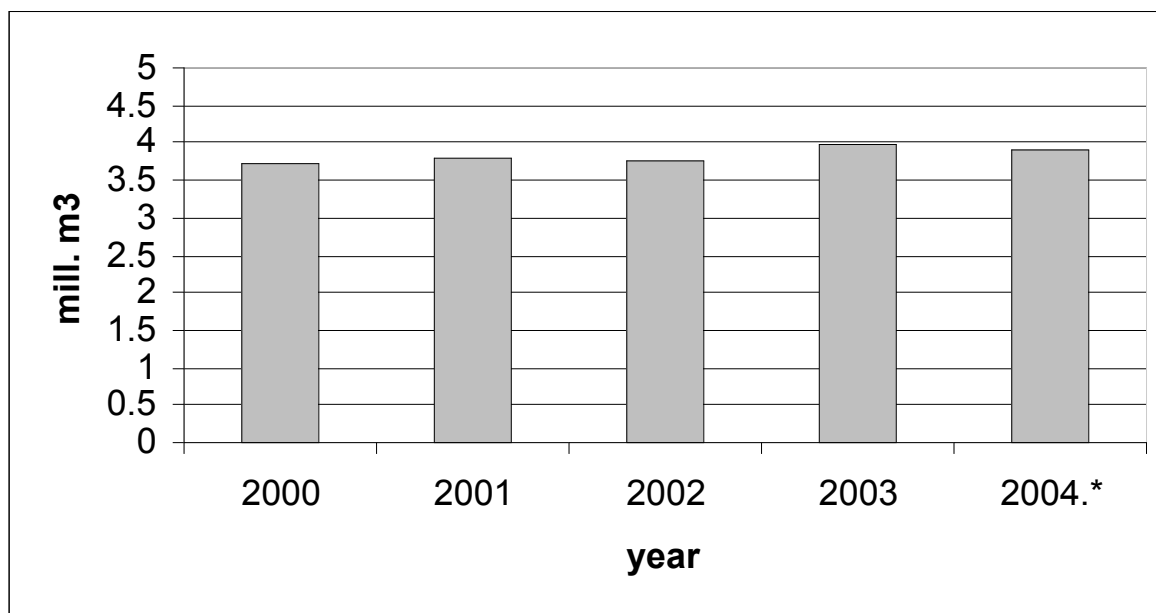


Figure 6. Dynamics of Logging Volume

Subsistence vs. Commercial Forestry

Although official statistics on subsistence forestry are not available, a State Forest Service survey (SFS 2001) of forest owners provides some valuable insights on uses of privately owned forests. Although many respondents considered the forest to be the most important part of their land holding, only 3% indicated they got regular income from forest management; moreover, these owners all had holdings of 30 ha or more. The majority of owners (60%) had not received any income from their forests, while the remaining 37% reported receiving occasional income. Interestingly, in an evaluation of forest values, income from forestry received the lowest rating. The highest rating was assigned to the forest “as an object to be inherited by successors and for creating an awareness of ownership.” Owners also gave a high rating to the forest as a source of firewood.

These data indicate that subsistence uses of the forest, uses of non-timber forest products, and entirely non-material uses are more important to many forest owners than is commercial forestry. As mentioned earlier, the fact that so many forest owners have small parcels, and do not use their forests primarily as a source of income from logging, may mean that interest in certification continues to develop quite slowly among private forest owners.

III. THE EMERGENCE OF FOREST CERTIFICATION

Initial Support

Timeline of main events:

- 1995 Forestry Certification Bureau established
- 1996 WWF Latvia establishes FSC Certification Initiative Group (IG)

- 1999 Latvian PEFC Council founded by Forest Owners' Association
- 2000 *Latvia's State Forests* (LVM) declares intent to certify State forests
- 2001 Latvian PEFC Certification Standard accepted; PEFC certification begins
- 2002 Latvian Forest Certification Standard submitted to FSC for accreditation
- 2003 LVM completes certification of State forests

Main supporters of the initial certification movement

Although the initial Forestry Certification Bureau was established within the forest administration of the Agriculture Ministry, the first real groundswell of support for certification emerged within the WWF Latvia Working Group and its later incarnation as the non-governmental group "Latvian Forest Certification Council" (LFCC). Participants came from the environmental, social and economic sectors. Environmental support came from WWF, the Latvian Fund for Nature, the Latvian Ornithologists' Society, and the Latvian Forest Institute *Silava*. The social sector was represented by the Latvian Forest Workers' Union. Economic concerns were represented by the Latvian Foresters' Society, The State Joint Stock Company *Latvia's State Forests* ("LVM"), the Riga City Council Forest Administration, and the forestry companies *Latvijas Finieris* and *Silva* (Roz_tis 2004).

History of FSC Certification

Discussion of forest certification began in 1995 with the formation of the Forestry Certification Bureau – the first working group dedicated to drafting certification standards for Latvia. This group was run and financed through the State Forest Service. The group's goal at this early stage was not to create a standard based on any particular certification program, but simply to gather information about the forest certification process, as well as to clarify the interests of Latvia's forest sector stakeholders. The Bureau, however, was dissolved after only two years due to lack of resources. In the wake of the Bureau emerged an NGO called Green Certificate for Latvian Forestry. Like its predecessor, this organization was also unable to get certification off the ground. Apparently, the forestry community was not yet responsive or committed to the possibility of forest certification taking hold in Latvia (Lag_ns p.55).

Around the same time – in 1997 – the WWF Latvian Program Office began working to continue the certification process. Mobilizing representatives of the forest sector that had formed its "Forest Club," WWF Latvia formed its own working group in May 1997. The Initiative Group for Development of a Certification Standard for Latvian Forestry (IG) was founded by 11 Latvian organizations representing a range of interest groups, and was based on the following principles:

- Consensus-based decision-making;
- Openness to all interest groups;
- Declaration of support signed by members to back Group decisions and actions;
- Dispute resolution;
- Development of a national standard based on FSC principles, criteria and guidelines

The Initiative Group formed three subcommittees (environmental; social; and economic), as well as the dispute resolution committee, and later, a technical subcommittee for writing the

certification standard itself. Between June 16, 1997 and April 5, 2000, the Group held a total of 31 meetings, of which the majority were environmental subcommittee meetings (Lagans p.55). During this time, the IG also held various seminars and publicity events. The first seminar dealt with forestry certification, and featured participation by representatives of the UK's WWF *Buyers Group 95+*. The second seminar focused on supply chains, and introduced participants to the supply chain tracking systems used by two prominent Latvian forest products companies –*Silva* and *VikaWood*.

In April 1999 the Group approved its first Draft Standard, and in September 1999 the UK Forestry Company *SGS Forestry* performed a field assessment of the standard.

In October 2000 the WWF Working Group decided that the best way to continue the certification process in Latvia would be through the formation of a separate, independent NGO. To that end, in June 2001 a new organization, the Latvian Forest Certification Council (LFCC), was founded. This organization was responsible for drafting the FSC Latvian Certification Standard in 2003, which is currently under review by the FSC Secretariat.

History of PEFC Certification

Meanwhile, in 1999 a parallel PEFC organization, the PEFC Latvian Council was founded by the Forest Owners' Association. This organization's stated goals were:

- Promoting sustainable forest management by implementing the PEFC Forest Certification process in Latvia's forestlands
- Leading the PEFC movement in Latvia
- Coordinating the certification process, working groups, experts, etc.
- Preparing and distributing information about the PEFC system in Latvia
- Cooperating with the PEFC council and other European structures as the PEFC system's official representative in Latvia

The Latvian PEFC system was designed primarily to promote certification of Latvia's small private forests (10 – 100 ha). The intent was to conduct group certification of private forest holdings under an umbrella organization – the Forest Owners' Association.

The PEFC Latvian Council consists of 21 members: 18 from the economic sector; 2 in the social sector; and 1 in the ecological sector. The low representation of the environmental sector in the makeup of the Council is considered to be one of the main reasons why the PEFC Council did not receive the initial support of Latvia's environmental NGO community.

In January 2001 Latvia's PEFC Forest Certification Standard was accepted, and PEFC certification began in Latvia (PEFC Statutes 1999).

History of FSC certification of LVM (Latvia's State Forests 2003(a))

May 2000	LVM declares intent to certify State forests
Sept. 2001	First LVM forest is certified in Eastern Vidzeme
April 2002	50% of LVM forests are certified

Jan. 2003 LVM completes certification of State forests

In May 2000 LVM announced its intention to obtain FSC certification for the forests under its management. This goal was one of the first major priorities expressed by the newly founded LVM agency.

LVM gives the following reasons for choosing FSC certification:

- FSC is a credible forestry certification scheme – objective, independent and transparent
- The forest management principles and criteria set by FSC match well with the forest management philosophy of LVM
- FSC is accepted in Latvia main export market - UK

By July 2001, the first audit of an LVM forest was carried out the FSC accredited certification company SGS Qualifor. The first forestry was awarded an FSC certificate in September 2001, and by the following April, one-half of LVM forest were certified. The first supervisory visits and audits were conducted then as well, with the remaining audits completed in November 2002, again by SGS Qualifor, as well as by SmartWood. In January 2003 LVM announced that 100% of its forests had been certified under FSC. These certificates are valid for 5 years, during which supervision visits will be carried out by the certification company once or twice a year.

Institutional Design

Latvian Forest Legislation

Latvian legislation regulates all aspects of forest management, including management and documentation; forest management itself (timber felling permits, logging regulations based on type of logging activity, stand size, tree age and diameter, and environmental considerations; forest regeneration species and timelines; social rights and guarantees (professional competence, worker safety, forest access and non-timber forest products); and environmental protection (protected area designation, environmental impact assessments during management planning and execution).

Forest legislation has been in a continuous process of evolution and reform since Latvia's restoration of independence, and as a result the entire forest sector has been in a dynamic and constant state of flux. In 1992 the Forestry Department and Cabinet developed an initial Forestry Development Program to assess the development potential of the forest sector in Latvia. Then in 1995 the State Forest Service, with the assistance of the Swedish consulting firm "Swedforest International AB" drafted the "Latvian Forest and Timber Industry Development Program." The purpose of this document was to provide direction for the development of the forest industry. Although the Program did not develop specific activities or sources of funding in order to implement the recommended developments, some of the document's recommendations have already been implemented. These achievements include an inventory of sawmill production, the introduction of the certification process, and plans for a pulp mill.

In 1996 the government began work on a national Forest Policy. Input for this document was solicited from governmental agencies, non-governmental agencies, and various interest groups. In 1998 the Forest Policy was ratified, and this policy has since served as the foundation for major legislation and overall development within the forest sector. The major pieces of legislation developed as a result include:

- The Law on the State Forest Service (1999)
- The Law on Forests (2000)
- The Law on Environmental Impact Assessments (1998)

Currently the government is working to expand the Forest Policy to include the entire array of forest sector interests, as shown in the Figure 7 (www.zm.gov.lv).

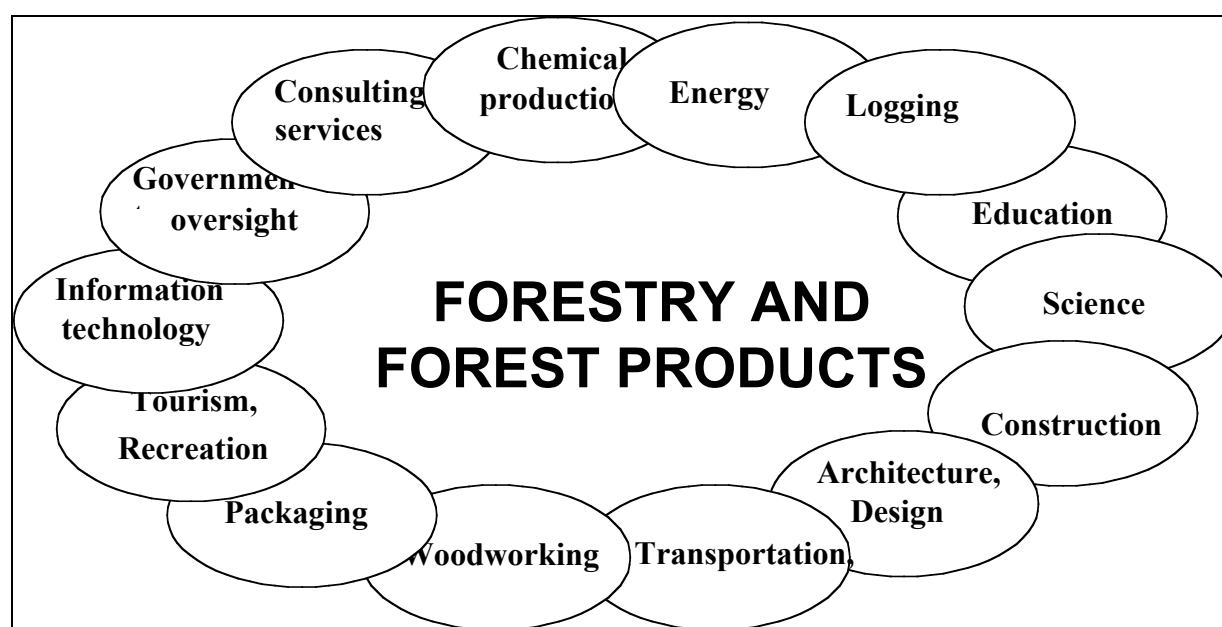


Figure 7. Forestry and Forest Products

The new National Policy on Forestry and Related Sectors is being developed as a strategic planning document for the time period of 2004-2013. The emphasis of this document is on sustainable forest management and integrated development of the forest sector. The main goals for this document are as follows:

- Sustainable management of forests and forest land
- Expansion of the Latvian market for forestry and related industries
- Increase in domestic consumption of renewable forest resources
- Integration of education and science in the forest sector
- Integrated development of forest product exploitation and energy sector
- Promotion of timber use in construction
- Transportation improvements in the forest sector

- Legislative reform to comply with international forestry standards
- Development of information technology and networks for forestry and related fields
- Involvement of forestry sector in sustainable rural development and efficient land use
- Forest sector compliance with international obligations

Certification standards

The FSC standards were developed in a working group headed by WWF Latvia, while the PEFC standards were initiated by the Forest Owners' Association. Both processes were designed to include stakeholder participation. Participants in the FSC development process included representatives from 27 organizations, including:

- LVM
- Latvian Foresters' Association
- WWF Latvia
- Latvian Forestry Institute *Silava*
- *Latvijas Finieris* (a forestry company)
- Forest Department of the Agriculture Ministry
- Latvian Ornithological Society
- State Forest Service
- Latvian Forest Workers' Union
- Latvian Forest Product Exporters' Association

Members of the PEFC Latvia council included representatives from the following eight sectors (PEFC Latvia Council 2001):

- Forest Owners' Organizations (10 seats)
- Forestry Operators and Wood Processing Groups (6 seats)
- Wood Trade Companies (2 seats)
- Nature Protection and Regional Development Organizations (3 seats)
- Trade Union Organizations (1 seat)
- Farmers Organizations (1 seat)
- State and Local Government Forests (2 seats)
- Science and Education Institutions (3 seats)

Standards

Status Quo Standards

Of all the many laws and regulations governing the forest sector in Latvia, the Forest Law of 2000 is perhaps most comparable to the certification standards. The stated goal of the Forest Law is "to regulate the sustainable management of all of Latvia's forests, to guarantee equal rights, protection of property rights, economic freedom, and equal responsibilities for all forest owners or legal custodians." Regulations for various categories of protected areas are delineated in a separate document – "Regulations for Nature Protection in Forest Management." The Forest Law contains the following sections:

- Access to the forest

- Cutting of trees
- Non-timber forest products
- Forest reproductive material
- Forest regeneration and reforestation
- Forest protection
- Information about the forest and forest management plans
- Nature protection in the forest
- Issuing of forest permits
- Transformation of forest land
- Government oversight of forests
- Scientific research forests
- Violation of forest laws

Certification Standards

Currently forest owners and forest product manufacturers in Latvia can choose to receive forest management or supply chain certification either through FSC or PEFC standards. The State Forests and several larger forestry companies use FSC, while many smaller forest owners use PEFC.

PEFC

The stated goal for the Latvian PEFC standards is “to develop sustainable forestry with a balance among production, environment and cultural environment protection, and social interests.” In addition to compliance with the Latvian Forest Law and related regulations, the PEFC standards proscribe a set of guidelines that are based on the Helsinki Criteria of Sustainable Forest Management, the Pan-European Indicators for Sustainable Forest Management, and the Pan-European Recommendations for Sustainable Forest Management. (PEFC Latvia Council 2001). The PEFC standards are divided into three main categories – Forestry; Social Interests; and Environment and Cultural Values. A summary of the main requirements in the PEFC standards is found in Table 5 below.

Table 5. Summary of PEFC Standard

Category	Sub-categories	Summary of requirement areas
Forestry	Active, economically based forest management	thinning; plantations; regeneration; stand structure and age; economic considerations
	Usage of chemicals	fertilizers and pesticides; sewage sludges
	Non-domestic species	
	Water protection	oils and fuels; machinery; road construction
	Measures for soil protection	
	Forest health	
Social Interests	Competence in forest operations	knowledge of legislation; training and licensing of personnel

	Work organization, safety, and ergonomics	
	Labor rights, safety of employees	ILO Conventions
	Recreation and society's free access to areas of the forest properties	asymmetrical and mosaic planting; landscape design considerations; maintenance of roadsides
	Rural development	
Environment and Cultural Values	Environmental consideration areas	category 1 – generally managed forests category 2 – specially managed forests category 3 – specially protected forests
	Woodland key habitats	
	Wet forest land	
	Buffer zones	undergrowth and dead trees; protection of water resources; nests and dens
	Nature value trees and eternity trees	
	Dead wood	
	Cultural and historical environment	natural landscapes and borders; roadside maintenance; historical trees; mosaic plantings
	New knowledge and results of investigation	research and reevaluation of Standards
Transitional period and introduction principles for Forest Standard	all requirements met within 2 years of confirmation of certification; preparation of Green Management Plan	

FSC

The overall goal of the Latvian FSC standard is “to implement in forest management internationally recognized environment-friendly, economically viable, and socially beneficial methods, adapted to the Latvian conditions and providing for the conservation and further enhancement of the forest’s multiple values” (LFCC 2003). The Latvian FSC standard is based on the international FSC Principles and Criteria.

A summary of the standard is provided in Table 6. In the interest of brevity, the criteria and demands sections will be presented together.

Table 6. Summary of FSC Standard

Principle	Summary of criteria and demands
Compliance with laws and FSC principles	observance of national laws and regulations; payment of taxes; international treaties; conflict resolution; protection from illegal harvesting
Tenure and Use Rights and Responsibilities	long-term use rights; marking of property; local communities’ rights; dispute resolution
Indigenous Peoples’ Rights	[no indigenous groups in Latvia]
Community Relations and	long-term social and economic well-being of forest workers and

Workers' Rights	local communities; employment opportunities for local communities; health and safety for forest employees; workers' rights to organize; evaluation of social impact of forest management; mechanisms for grievances and compensation
Benefits from the Forest	balance of economic viability, ecological productivity, social costs; long-term management; local processing of forest products; minimizing waste; diversifying local economy; maintaining and enhancing watersheds, fisheries, etc.; rate of harvest
Environmental Impact	conservation of biological diversity, landscapes, ecological functions, etc.; environmental impact assessments; endangered species management; forest regeneration, succession; forest structure; representative ecosystems; erosion; road construction; non-chemical pest management; chemical disposal; biological controls, GMOs, exotic species, plantations;
Management Plan	guidelines for management plans; periodical revision; training of employees; public access
Monitoring and Assessment	monitoring condition of forest, yields, chain of custody, social and environmental impacts
Maintenance of High Conservation Value Forests	identification of HCVF; conservation and monitoring
Plantations	plantations to reduce pressure and promote restoration and conservation of natural forests; design and management guidelines for plantations

Forestry Problems

WWF Latvia, one of the earliest and most vocal proponents of certification, lists the following goals for the forest certification process:

- socially responsible, environmentally friendly and economically viable forest management;
- protection of biological diversity in managed areas and high-value forests;
- openness of forest management and timber trade;
- resolution of social problems associated with forest resource exploitation;
- guarantees of environmentally friendly forest management for timber industries, consumers, and other interested parties.

Overall, the discussions of certification in Latvia tend to focus on access to markets and other economic considerations as the main problems that certification can help address. Although certification proponents are usually quick to warn that certified timber does not guarantee increased profitability, there does seem to be a general agreement that certification will help secure a niche in the competitive timber market, particularly in the European countries that are so important for Latvia's timber export. As an article in Latvia's largest newspaper, *Diena* in 2001 begins, "Latvia's forest sector exporters, in particular furniture producers, are waiting for the

appearance of certified timber on the market, because their foreign partners are increasingly urgently demanding products with the “green” certificate’s stamp of approval” (Dr_li__ 2001).

Certification is also seen as a tool to combat illegal logging and to increase transparency. In a 2001 interview the WWF Latvia staff explain, “rural businesses need to understand that [certification] can help them organize their business so that they can follow the trail of money and goods. Small rural sawmills have a high proportion of illegal timber, but even these businesses are beginning to think about supply chain certification” (Timbare 2001(a)).

In a 2003 presentation to a group of Baltic Sea forest sector representatives, WWF Latvia stressed certification as one of the major ways to combat illegal logging, particularly among private forest owners (WWF Latvia 2003). However, this study also points out that illegal logging per se only accounts for two percent of the total timber harvest in Latvia. Other aspects of the illegal timber trade, such as tax evasion, money laundering, and other more complex problems associated with transitional economies and governments overall, are both more important contributors to the illegal economy, and more difficult to address at the level on which certification operates.

Illegal logging in Latvia is estimated to produce about 100,000 m³ of wood, of which 10,000 m³ comes from state forests and 90,000 m³ from private forests (SFS 2003). This comprises 0.7% of the total timber harvest volume for 2003. Forest certification (including CoC) certification is not an instrument that can be used in Latvia to discourage illegal logging, because those forest owners who have received certification, as well as those who are not certified but who operate legally, are harmed either directly or indirectly by illegal logging.

Although forest management and environmental protection are popular topics in the Latvian press and public, the Latvian certification movement does not seem to focus on sustainable forestry as a major goal. “Even now,” complains J_nis Roz_tis of WWF Latvia, “the prevalent view is that certification is only a market instrument. Very few forest sector representatives see the global context – the creation of a model for environmentally friendly [timber] supply and demand chain in the international market.” Even LVM, thinks Roz_tis, tends to see certification as an end in itself, rather than a means to improve forest management overall.

Why so little emphasis on the environmental aspects of certification? One possible reason is that Latvian forestry laws and traditional practices are seen as fairly stringent and environmentally responsible. Perhaps the widespread forest sector reform of recent years has assuaged fears of environmental mismanagement in Latvia’s forests. An alternate theory might be that proponents of certification simply want to appeal to forest owners’ self-interest, by stressing the potential economic gains and improved reputation that come with certification, rather than any burdens or responsibilities that may result from an increased level of environmental protection in certified forests.

Although both forest owners and the general public have increased access to forest certification (through various publications and booklets, sponsored largely by WWF Latvia), public understanding of the goals of certification remains low. In a recent survey (Latvijas Fakti 2003, p.39), 1035 individuals directly related to the forest sector (forest owners, SFS and LVM

employees, timber industry leaders, forestry students and instructors, researchers and environmental organization representatives) were asked, *How do you understand the term "sustainable forest management,"* to which only 2.7% responded, *The union of economic, social, and ecological functions of the forest.*

Roadblocks and Challenges

Since all of Latvia's state forests have been certified, it is perhaps most appropriate to discuss challenges primarily in terms of certification of privately owned forests. In its application for endorsement to the FSC Board in 2001, the Latvian Forest Certification Council (LFCC) provides a fairly comprehensive picture of the climate in which certification had been developing in Latvia. These conditions provide insight into the challenges that the certification movement faced; they are summarized as follows (LFCC 2001):

1. The dramatic changes in legislation, ownership structure, industry and society during the past created a situation in which issues of sustainable development, environmental protection, etc. were not social priorities.
2. There were no traditions of cooperation between NGO's, industry and government organizations in Latvia prior to independence; currently social organizations remain small, and they lack experience, funds, and clearly defined goals.
3. The average citizen of Latvia (including foresters) believed strongly that Latvian forests are managed in a good manner, that there are enough protected areas, that forests are in good condition and all necessary improvements can be implemented through legislation;
4. There was no local demand for certified forest products in Latvia;
5. There was no knowledge about certification, forest certification, FSC and similar issues in Latvia;
6. There were a lot of poorly organized private forest owners in Latvia knowing nearly nothing about the forests and having no ideas what to do with their forests.

The overall uncertainty that accompanied the transition of the Latvian economy placed such long-term concerns as sustainable forestry on the national back burner. Within the government as well, early efforts were directed toward more basic priorities, such as formulating a national Forest Policy. Thus the government perhaps could not invest the energy, support or finances into certification that might have helped certification develop even more strongly.

Of course, a major obstacle for private forest owners was and continues to be the cost of certification. While LVM was able to pay for the cost of certifying the state forests under its authority, there has been no government funding or subsidies available for private forest owners. In addition, no domestic market for certified wood has yet developed in Latvia. Thus, small forest owners who may lack the capacity or need for exporting timber products may not be encountering any economic pressure for their wood to be certified.

Forest owners and other interest groups continue to be poorly organized and often lack clear goals, let alone the means to reach them. SGS Forestry assessment in 1999 found insufficient identification and inclusion of interest groups, including the State Forest Service, municipal officials and NGOs, in the certification process (Lag_ns p.58).

Further, there is a general consensus that legislation and traditions in Latvia were sufficient to protect the country's forest resources. For many, certification may seem like yet another hoop of international bureaucracy to jump through on the way for Latvia to join the European Union. This letter to the editor, published in a major newspaper in 2001 reflects a common skepticism and attitude about forestry (Timbare 2001(b)):

In the Jan. 12 issue of 'Neatkar_g_' the article 'Private Forests are being Certified' reads more like an advertisement for certification than information for forest owners. The essence of forest certification is not clear. Will an FSC certificate ensure that my forest will grow and develop more successfully? What does the FSC certificate mean? What does it give the forest and the forest owner, and how much does it cost? 'The Latvian FSC standard is currently still in the development phase,' writes [journalist] Ilze Timbare. Yet it turns out that [an FSC] certificate can already be obtained. Is this some kind of 'half-baked' certificate? And what if I don't want to sell my forest to Great Britain or Sweden, but simply leave it for my grandchildren?

While certification activists may not say it in so many words, one final source of frustration within the certification process might be conflicts of personality between FSC and PEFC supporters, or even within supporters of one standard. The Latvian forest sector is small; people know each other and many alliances are made and broken on the basis of personal relationships. Several people interviewed for this study acknowledged that one of the major accomplishments of the certification process, for both FSC and PEFC, was the reduction of infighting between interest groups; this suggests that the level of infighting when the process began was probably quite significant. Overall, many of the obstacles mentioned with respect to certification are social in nature, and stem from pre-existing cultural conditions in Latvia.

IV. THE REACTION TO CERTIFICATION

Forest policy community and stakeholders

The attitude expressed by both WWF Latvia and the Latvian Forest Certification Council (LFCC) is that the initial reaction to certification by the forest sector was neutral at best, but that the overall attitude toward certification has changed for the better.

Within the Latvian government, the attitude toward certification has progressed significantly. Whereas in 1995 there was not sufficient momentum to sustain a working group on certification, less than a decade later fully 100% of state forests in Latvia have been certified. This focus on FSC has not come without a cost, however; as Skaidr_te Alberti_a of the Forest Owners' Association claims, the government has continually ignored the efforts of the PEFC movement. Baiba Rotberga (2004) of the State Forest Service asserts that this agency has maintained a neutral position toward both certification organizations.

Both PEFC and FSC advocates agree that public awareness of forest certification remains low. Rozītis acknowledges, “if I were to ask 100 people on the street in Riga whether it is important to manage forests more environmentally, and if FSC certification might be used toward this goal, then I think responses would be entirely positive. Until now very little attention has been paid to educating the public about the meaning of certification. This has begun to change within the past year.”

According to Albertina, certification is more of a “professional question,” while the general public is concerned on a more basic level with issues of logging, or what she terms “forest robbery” – that is, perceived excessive logging. She suggests that the public sees trees being cut down as negative, but does not connect that with the economic realities of forestry.

A timber industry representative (Anonymous 2004) complains that while the demand for certified timber has increased, the consumer still does not really know what exactly he is demanding.

Guntars Lagins of the LFCC (2004 (a)) offers the explanation that the public’s attitudes and thinking are changing gradually, in parallel with improvements in the standard of living. He sees increasing affluence and overall development of the country as positive steps toward the expansion of certification, as well.

Forest owners

There seems to be a general consensus that forest owners are beginning to realize the potential benefits of certification, but that few have yet to reap any actual benefits. As a member of the Forest Certification Council puts it, “private entrepreneurs understand that the market demands [certification] and that it doesn’t hurt their image, either. But they’re not happy about it. Maybe LVM is an exception, because they’re not spending their own money [to pay for certification], but government money, and they operate as managers, not owners.” The implication of this is that owners feel the burden of spending their money on certification, without really profiting from it yet.

Current status of forestland certification

As of 2003, 100% of Latvia’s State Forests (under the management of LVM) are certified under FSC. FSC certification can be obtained as follows:

- through 12 accredited FSC organizations for direct certification
 - most certification in Latvia is carried out by SGS Qualifor and Smartwood
 - 9 forest management certificates (1,685,932ha)
 - 80 Chain of Custody certificates
- through 2 certification groups (*Forest 2000; Forest Owners Consulting Center*)
 - 14 members with a combined area of 6128 ha

Currently, the PEFC group in Latvia has 190 members, with a combined certified area of 18,546 hectares. PEFC certification can be obtained in the following ways:

- through 1 certification organization (*SO Vides kvalit_te*) accredited in Latvia for direct certification
 - 2 forest management certificates (7,150 ha)
 - 13 Chain of Custody certificates
- through 1 regional certification group
 - 190 members with a combined area of 18,546 ha

The Riga municipal forests are split into industrial forests (56,000 ha), which are certified under FSC, and city forests (primarily for recreation, no logging – 4,000 ha), which are certified under PEFC.

Current status of the certified marketplace

There has been steady growth in the Certified wood market in Latvia. In 2003 1.64 million m³ of FSC Certified timber were produced to meet the demands of the certified market. In addition, the appearance of consulting firms such as *Forest 2000* indicates that there is a market for services related to the certification process.

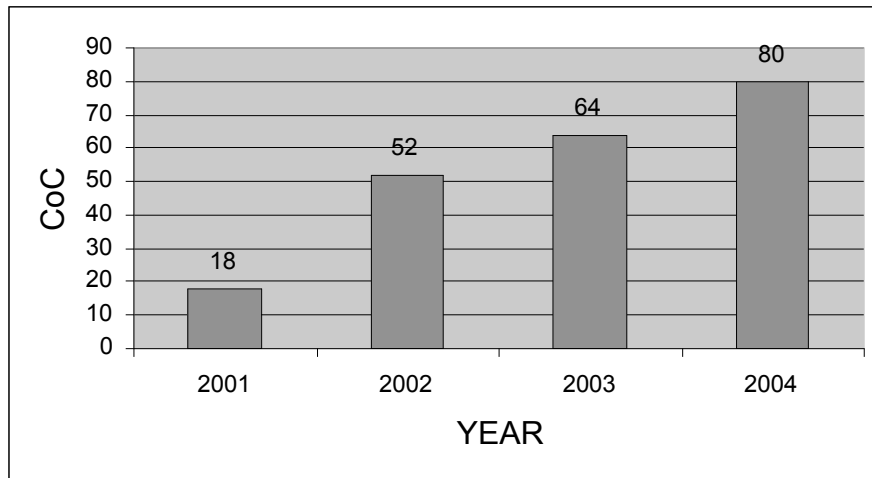
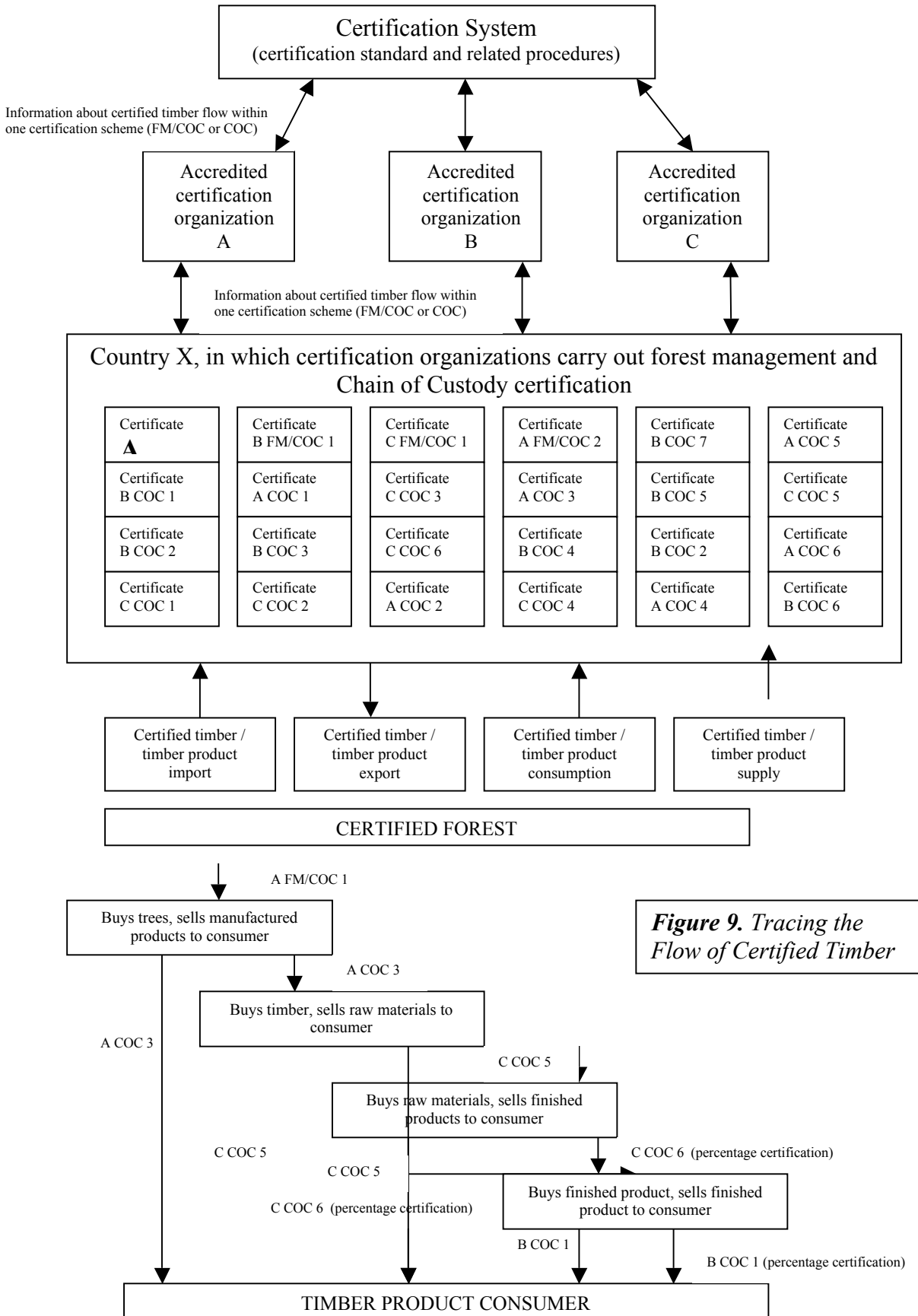


Figure 8. Growth of the certified timber supply chain

It is difficult to estimate the volume of certified timber within the market, because none of the forest management or chain of custody (CoC) certificates follows certified wood from the forest through the finished product on the international market. Instead wood can be traced by the number of certificates granted by accredited certification organizations, or by calculating the amount of certified timber products available to the consumer and then tracing back through the chain of custody. This system does not allow comprehensive analysis of the flow of timber through various countries and under various certification schemes.



V. EFFECTS OF CERTIFICATION

Because of the recent completion of the certification process in state forests, and the low level of certification in private forests, it appears to be too early to judge the effects of certification in terms of actual changes in forest management, environmental or social conditions, or the timber trade and other economic aspects. Nonetheless, the certification standard-setting process itself has so far produced some interesting effects within the Latvian forest sector.

Power

Judging from the comments of participants in the FSC and PEFC standard development process, the process itself gave an equal voice to many interest groups who may have been underrepresented in earlier forest sector decision-making.

It appears that certification grants certain powers to the certification organization. For example, Skaidr_tē Alberti_a of the Forest Owners' Association explains, "forest certification is not a mandatory, but rather a voluntary process. If someone doesn't want to, he can choose not to certify his forest. We (FOA) will simply exclude this forest owner from our circle, because we believe that he is not willing to work within the sustainable forestry system" (Jaunbelzere and Ivans 2000). Thus, the Forest Owners' Association can use certification as a de facto requirement for acceptance in the cooperative, thereby asserting the importance it places on the management standards set by certification.

Environmental groups have undoubtedly benefited from the certification process, as it has provided a formal, structured medium in which to pursue their agendas. According to J_nis Roz_tis of WWF Latvia, "certification standards have become an instrument for environmental and social interest groups to use in influencing the quality of forest management. There is no doubt that they have succeeded in doing so."

Social

The social ramifications of certification might well be the most significant effects to be seen so far. Essentially, the certification process has opened the doors for collaboration among the various forest sector groups.

As reported by both WWF representative J_nis Roz_tis and FOA/PEFC representatives Skaidr_tē Alberti_a and _riks Za_is, the process of developing certification standards has been helpful in improving cooperation and communication among forest sector groups. Roz_tis (2004) reflects, "thanks to the process of developing FSC standards, the ability of various interest groups to communicate with one another has improved... People simply sat around the table and calmly debated their ideas. At the end of the standard design process, there wasn't a single point that disrupted the flow of the meeting due to an inability to reach consensus."

Similarly, Alberti_a (2004) believes that "gradually interest groups are beginning to understand that diversity is good, even in [the certification] field, and there is no longer as much

infighting.” Even a timber industry representative (Anonymous 2004) commented that certification has helped foster dialog and mutual understanding among forest sector interest groups.

Forest Owners’ Association director _riks Za_is suggests that certification allows forest owners to participate in forest policy more directly than they are able to do within the governmental structure. In an August 2001 interview (Timbare 2001(c)) he recalled that the Forest Owners’ Association participated in drafting the government’s Agricultural Assistance Program, but that nothing much came of it. Consequently, the Forest Owners’ Association experts had begun drafting their own “forest program,” of which one of the most important tasks – forest certification – was already being implemented.

An improvement in job safety was noted by Forest Certification Council representative Guntars Lag_ns (2004(a)), who commented, “without certification it would have been a long time before we’d see any helmets being used in the forest.”

The experience of certification within LVM was as a tool to help educate its employees and partners about the benefits of sustainable forest management. In particular, it became clear that when interacting with forest workers, demanding that things be done in one or another way would often not achieve the desired management goal, whereas educating people about the interconnectedness of forest management processes would allow them to make the proper decisions on their own – a much more effective form of management.

Finally, the sentiments of a timber industry representative (Anonymous 2004) indicate that certification provides a means for institutionalizing transparency. Since certification is a voluntary process, he comments, it demonstrates the forest manager’s willingness to work legitimately, above and beyond the extent to which forestry legislation is enforced. Certification has also helped improve the credibility of government management, by providing public access to all of LVM’s forest management plans.

Economic

There appears to be a general sense that certification has not yet produced any tangible economic gains for most forest owners. Forest owners do not seem to have made up for the losses incurred through certification expenses by receiving higher prices when selling certified timber.

Timber manufacturers may have begun seeing some benefit from certification. According to Baiba Rotberga of the SFS (2004), as well as an anonymous timber industry representative (Anonymous 2004), some timber producers have benefitted from certifying their forests to the extent that they can find and secure a niche in the certified timber market.

Environmental

According to WWF representative J_nis Roz_tis (2004), the major environmental effect of certification so far seems to be that Latvian forest legislation is beginning to incorporate some

of the environmental requirements of the FSC standard: “I think that today’s best knowledge of forestry is incorporated into the Latvian standard – of course, to the extent that compromises with the business sector have been reached. If there haven’t been specific results, then at least there have been trends. Some major priorities, like landscape ecological planning, have not been incorporated into the standard, but indirect pressure and discussions during the standard development process have forced LVM to begin work on developing landscape ecological planning.”

For her part, Baiba Rotberga of the SFS (2004) finds that certification provides a touchstone for SFS employees to refer to, when bringing up issues of environmental protection with forest owners. Certification has in a sense legitimized environmental concerns in forest management. Similarly, she adds, certification has also provided environmentalists with a medium in which to bring environmental issues to the public’s attention.

VI. CONCLUSION

At this point, FSC certification is clearly the most widespread standard in Latvia. Reasons cited for the preference of FSC over PEFC seem to stress not so much the standards themselves, as the institutional design processes through which they were created. In particular, criticism emerges about the structures and decision-making processes of the PEFC system. In its “Statement on PEFC,” WWF Latvia (2004(b)) posits that PEFC does not grant full voting rights to its non-industrial members (such as social and environmental NGOs and consumer groups). The WWF statement goes on to challenge PEFC for limiting public access to certain documents. Similarly, a timber industry representative (Anonymous 2004) claims, “the PEFC certification process is pretty closed and secretive.” Finally, although her agency is officially neutral, Baiba Rotberga (2004) of the SFS expressed her personal opinion that PEFC is driven largely by certain stakeholders and business interests, whereas FSC is more socially acceptable.

Regardless of their affiliations, everyone whose opinion has been expressed in this case study seems to agree that for the time being, although few are yet to see any real economic gains from certification, the forest sector as a whole has benefited from the improved communication and collaboration that has emerged during the certification process. On the environmental front, it seems that certification has served to legitimize environmental concerns within forest management, and might be helping to raise the bar for forest management in all of Latvia’s forests.

LVM lists the following expected benefits from forest certification (Latvia’s State Forests 2003(b)):

- Continued improvement of standards and quality of forest management.
- Internationally and nationally accepted evidence that forests are well managed.
- Improved competitiveness and stable timber sales in the future.
- Elimination of the flow of illegal timber.

Future research on the effects of certification in Latvia could benefit from focusing on these goals and examining the extent to which they are reached on both state and private lands.

VII. REFERENCES

- Dr_li__, Andris. March 14, 2001. "St_v_jas 'za_ie' sertifik_ti." Diena: Bizness p.5.
- Forest Owners Consulting Center. 2004. FSC group scheme properties.
[http://www.mikc.lv/doc/doc/fsc_group_scheme_properties_\(eng\).pdf](http://www.mikc.lv/doc/doc/fsc_group_scheme_properties_(eng).pdf). Website visited June 3, 2004.
- Forest Stewardship Council (FSC). 2004. List of Certified Forests.
<http://www.fscoax.org/principal.htm>. Website visited June 3, 2004.
- Ga__e, Andra. May 15, 2002(a). "Me__ var saimniekot ar_ za_i." Druva: Redzeslok__ p.5.
- Ga__e, Andra. June 4, 2002(b). "Me_s ir v_rt_gs ieguld_jums." Druva: Zemnieku saimniec__ba p.4.
- Hailova, Anda, R__ta Lipska, Anita Jaunbelzere. March 19, 2003. "Koku sertifik_cijas veidi."
Lauku av__ze: Zi__nesis p.11.
- Jaunbelzere, Anita. May 30, 2000. "Pap_rmalkai vajadz_s sertifik_tu." Lauku av__ze: Saimnieku zi__as p.29.
- Jaunbelzere, Anita, M. Ivans. June 6, 2000. "Vai me_u sertifik_cija ir oblig_ta?" Lauku av__ze: Zi__nesis p.11
- Jaunbelzere, Anita. March 4, 2003. "Me_u sertifik_ts – atbalsts ra_ot_jiem." Lauku av__ze: Saimniecisk_s zi__as p.21.
- Jaunbelzere, Anita. Oct. 1, 2003. "Me_u sertifik_cija – v_lreiz no jauna." Lauku av__ze: Saimniecisk_s zi__as p.18.
- Lag_ns, Guntars. 2000. "FSC me_saimniec_bas izv_rt_jums Eiropas un Latvijas kontekst_." Master's Thesis: University of Latvia, Jelgava.
- Lag_ns, Guntars. 2004(b). Cover letter describing the activities of *Forest 2000*.
- Latvian Forest Certification Council. 2001. Letter to FSC Board. July 30, 2001.
- Latvian Forest Certification Council. 2003. FSC Latvian Forest Management Certification Standard.
- Latvia's State Forests (LVM). 1999. Mision, vision: Latvia's State Forests.
<http://www.lvm.lv/index.php?pid=219>. Website visited June 3, 2004.
- Latvia's State Forests (LVM). Feb. 28, 2003(a). FSC Certification Fact Sheet: The Development of the FSC Certification Process in LVM (chronologically).
<http://www.lvm.lv/index.php?pid=22735>. Website visited June 3, 2004.

Latvia's State Forests (LVM). Oct. 10, 2003(b). PowerPoint presentation: Certification of Latvia's State Forests.

Latvijas Fakti. 2003. Latvijas me_ u nozares p_tijums: Aptauijas rezult_tu anal_ze.

Lursoft Data Base. 2004. <http://www.lursoft.lv>.

Ministru kabineta noteikumi nr.189: Dabas aizsardz_bas noteikumi me_a apsaimnieko_an_. May 8, 2001.

Ministry of Agriculture, Republic of Latvia. 2003. Forest Sector In Latvia: 2003. http://www.zm.gov.lv/data/forest_sector_2003.pdf. Website visited June 3, 2004.

PEFC Latvian Board Statutes. Oct. 21, 1999.

PEFC Latvia Council. 2001. Latvian Forest Certification Scheme. http://www.pefc.org/internet/htme/members_schemes/4_1120_59/5_1246_318/5_1123_392.htm. Website visited June 3, 2004.

Pelane, Aiga. March 18, 2000. "Valsts maz_k iejauksies priv_to me__pa_nieku darb_b_." Diena: Bizness p.6.

Pelane-S_usare, Aiga. Feb. 16, 1998. "Sertifik_cijas krit_riji j_izstr_d__ogad." Diena: Lieti___Diena p.6.

Republic of Latvia. 2000. Forest Law. <http://www.lvm.lv/index.php?pid=22662>. Website visited June 3, 2004.

Sali __, Z. 2002. Me_s – Latvijas nacion_l_bag_t_ba. Jelgavas tipogr_fija.

State Forest Service of Latvia. 2001. What does the Latvian Forest Owner Look Like? <http://www.vmd.gov.lv/eng/2/24/245/index.htm>. Website visited June 3, 2004.

Timbare, Ilze. Oct. 20, 2000. "Me_iniekiem j_s_k dom_t par videi draudz_g_m e__m." Neatkar_g_R_ta Av_ze: Ekonomika un bizness p.7.

Timbare, Ilze. Jan. 12, 2001a. "Sertific_priv_tos me_us." Neatkar_g_R_ta Av_ze: Ekonomika un bizness p.7.

Timbare, Ilze. Feb. 1, 2001b. "Sertific_ti me_i n_kotn_b_s norma." Neatkar_g_R_ta Av_ze: Ekonomika un bizness p.7.

Timbare, Ilze. Aug. 8, 2001c. "Sola prognoz_jamu vidi me_a nozar_." Neatkar_g_R_ta Av_ze: Ekonomika un bizness p.6.

WWF Latvia. 2002. FSC un PEFC Salidzinajums.

http://www.wwf.lv/doc_upl/FSC_un_PEFC_salidzinajums_latviski.pdf. Website visited June 3, 2004.

WWF Latvia. 2003. PowerPoint Presentation: “Illegal logging and related timber trade in the Baltic Sea Region: Challenges in the transitional economies.” Forest sector meeting including the Nordic Council of Ministers’ Adjacent Areas Programme and the Baltic 21 process. Sigulda, Latvia: October 21, 2003.

WWF Latvia. 2004(a). Pasaules Dabas Fonda pazi_ojums par FSC.

<http://www.wwf.lv/index.php?id=87&sadala=29>. Website visited June 3, 2004.

WWF Latvia. 2004(b). Pasaules Dabas Fonda pazi_ojums par PEFC.

<http://www.wwf.lv/index.php?id=88&sadala=29>. Website visited June 3, 2004.

INTERVIEWS

Alberti_a, Skaidr_te [PEFC Latvia Council representative]. May 2004. Email interview by Mara Schwartz.

Anonymous [representative from a large lumber and wood processing company]. June 2004. Telephone interview by Ansis Acti__.

Lag_ns, Guntars. May 2004(a) [Latvian Forest Certification Council representative]. Email interview by Ansis Acti_s.

Rotberga, Baiba [State Forest Service Asst. General Director]. June 2004. Telephone interview by Ansis Acti__.

Roz_tis, J_nis. May 2004 [WWF Latvia Forest Program coordinator]. Email interviews by Mara Schwartz.