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The world's forest resource continued to decline over the last decade at a rate of 14 million ha per annum under pressure from expanding agriculture. The area under forest management plans continues to increase, offering some hope for improved forest management. Forest certification, initially driven by ENGO pressure and now by a combination of factors including market access, continues to grow at a rapid rate. There was a 31% increase in area certified in 2003. To date some 177.4 million ha or 5% of world forests have been certified. Europe and North America account for over 90% of certified forests. The main certification schemes are American Tree Farm System (ATFS), Canadian Standard Association (CSA), Forest Stewardship Council (FSC), Programme for Endorsement of Forest Certification Schemes (PEFC) and the Sustainable Forestry Initiative (SFI). These five schemes account for 97% of certified areas. However, only the FSC scheme certifies in all major world regions. While the focus to date has been on expanding the area of forest certified, future issues will relate to the effectiveness of certification in ensuring sustainable forest management.

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## Global Forest Certification - 2004 Update

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### World Forest Resource

The world's forest resources totalled some 3,869 million ha or 30% of the world land area at the beginning of year 2000. This compares to an estimated 50% some 8,000 years ago<sup>1</sup>. About 47% of the world's forests occur in the tropical zone, 9% in the subtropics, 11% in the temperate and 33% in the boreal zone. The greatest concentrations of forests now lie in Europe (46% cover) and South America (51% cover) (Table 1).

In times past, when agriculture dominated economies, clearance of forests for agriculture was commonplace as a means to provide economic development and a livelihood for rural populations. It is relatively recently that forest clearance or deforestation has become a concern, more especially in the industrialised nations of the developed world.

TABLE 1: Forest areas by world region.

Region	Land Area Million ha	Total Forest (Natural + Plantations)				Forest Plantations Million ha
		Million ha	% land area	% all forests	Net change 1990-2000 Million ha/yr	
Africa	2 978	650	22	17	-5.3	8
Asia	3 085	548	18	14	-0.4	116
Europe	2 260	1 039	46	27	0.9	32
N&C America	2 137	549	26	14	-0.6	18
Oceania	849	198	23	5	-0.4	3
S America	1 755	886	51	23	-3.7	10
Total	13 064	3 869	30	100	-9.4	187

Source: FRA 2000

<sup>1</sup> Ball, J. B. 2001. *Global forest resources; history and dynamics. The Forest Handbook.* Oxford, Blackwell Press.

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According to FRA 2000, the rate of forest conversion has been particularly high in the tropics and estimated as being some 14.2 million ha per year during the period 1990 to 2000. This is equivalent to almost 1% of the tropical forest being lost each year. The net change of 9.4 million ha per year is lower, however, than in the previous decade due to increased expansion of forests, primarily in non-tropical areas. While demand for agriculture remains the main driving force leading to deforestation, the direct link between deforestation and population growth and shifting agriculture is less valid.

The area of forest under formal or informal management plans has increased (Table 2). Approximately 89% of forests in industrialised countries were being managed according to a formal or informal management plan. The figures for developing countries were far from complete and FRA 2000 estimated that only 6% of forests were covered by a formal, nationally approved forest management plan covering a period of at least five years.

The mere existence of a management plan does not necessarily indicate that either forest management has improved or that the forest is being managed in a sustainable fashion. However, as of year 2000, some 149 countries were involved in one or more of the nine eco-regional initiatives<sup>2</sup> to develop and implement criteria and indicators for sustainable forest management. The progress achieved and the degree of implementation was extremely

**TABLE 2:** Areas under forest management plans.

Region	Forest Area '000 ha	Under Forest Management Plans			
		Area 2000	%	Area 1980	%
Africa	649 866	5 509	1	2 319	<1
Asia	547 793	133 764	24	48 456	8
Europe	1 039 251	1 016 867	98	68 031	65
N&C America	549 304	309 629	56	253 306	43
Oceania	197 623	166 835	84	NA	-
S America	885 618	25 809	3	NA	-
Total	3 869 455	1 658 413	43	372 112	

2 African Timber Organisation (ATO), Regional initiative for the development and implementation of national level criteria for the sustainable management of dry forests in Asia (DFAs), Dry-Zone Africa process on criteria and indicators for SFM (DZAf), International tropical timber organisation (ITTO), Lepaterique process on Central America on criteria and indicators for SFM, Montreal process (MON), Near East process on criteria and indicators for SFM (NE), Tarapoto proposal of criteria and indicators for sustainability of the Amazon forest (TARA).

3 FERN 2004. *Footprints in the forest: Current practice and future challenges in forest certification*. Downloadable from [www.fern.org](http://www.fern.org).

4 Proforest. *Assessing Forest Certification Schemes: A Practical Guide*. December 2002. Downloadable from [www.proforest.net](http://www.proforest.net)

variable. However, the increase in area under forest management plans coupled with the number of countries that have either developed or are in the process of developing criteria and indicators, evidences an increasing awareness of the need for sustainable forest management.

## Certification

As mentioned above, the existence of forest management plans does not necessarily indicate that (a) forests are being sustainably managed or (b) that the plans are appropriate or (c) that the plans are being implemented and/or monitored. What is required is a standard against which the management of the forests can be judged. Certification is the tool to verify that forest management meets these defined standards in practice.

All of the eco-regional initiatives for criteria and indicators have as their aim, sustainable forest management (SFM). Thus the definition of SFM is crucial not only to standard setting but also to subsequent forest management practices and certification. Deciding what forest practices qualify as 'good' or 'sustainable forest management' is complex and controversial, with no objective or simple answer<sup>3</sup>. Indeed the credibility of SFM rests more on who defines the standards and the process for its definition than on the certification process.

Forest certification schemes can be viewed as consisting of three components. First there is the standard that sets out the forest management requirements against which certification assessments are made. The standard may be performance based, e.g. manage 15% of the forest area for biodiversity or plant 50% native tree species, or system based. While performance standards can be quite explicit, they do not specify how the performance is to be achieved. System standards specify the management systems rather than minimum levels of performance that must be in place within an organisation to ensure that it is managing quality, environment or even social performance consistently<sup>4</sup>. Thus, the standard is used to assess the organisation itself rather than the outcomes or results of management. System

standards can be very powerful tools for helping organisations to systematically understand and improve their performance. Second is the process of establishing or verifying whether the standard has been met in practice and this is known as *certification*. Third, there is procedure to ensure that the people and or organisations that undertake the certification are competent and independent and this is called *accreditation*.

Where the certification scheme is to be used as the basis for making a claim about a product or service, then a system for labeling the tracing in respect to a product is required. When a forest has been certified, the forest owner earns the right to label products from the forest with the name or logo of the certification scheme. Not all forest certification schemes include the use of logo and/or product labeling.

## Drivers for Certification

In the early 1990s, frustration among major environmental non-governmental organisations (ENGOs) regarding (inter)governmental efforts to stop deforestation led to the emergence of market-oriented voluntary certification of forest management quality and labeling of forest products<sup>5</sup>.

Buyers' groups subsequently emerged, insisting on certification as a proof of well-managed sources for their supplies.

In the intervening decade, forest certification has entered mainstream forestry. With acceptance of the principle of forest certification, the drivers for its being have moved and adapted to the changing operating environment. In a recent review of forest certification in the UNECE region<sup>6</sup> respondents were asked to rank in importance six drivers of forest certification. Market access was seen as the most important driver, followed closely by pressure from ENGOs and market demand (Figure 1).

Respondents also ranked ten factors that they perceived to hinder certification in their own country. Lack of domestic demand and the costs associated with forest certification were rated first and second. These were followed closely by lack of mutual recognition and lack of interest on behalf of forest owners (Figure 2).

There can be no doubt but that forest certification is here to stay. However, its progress, varietal forms and effectiveness in improving forest management are questions that will continue to be debated.

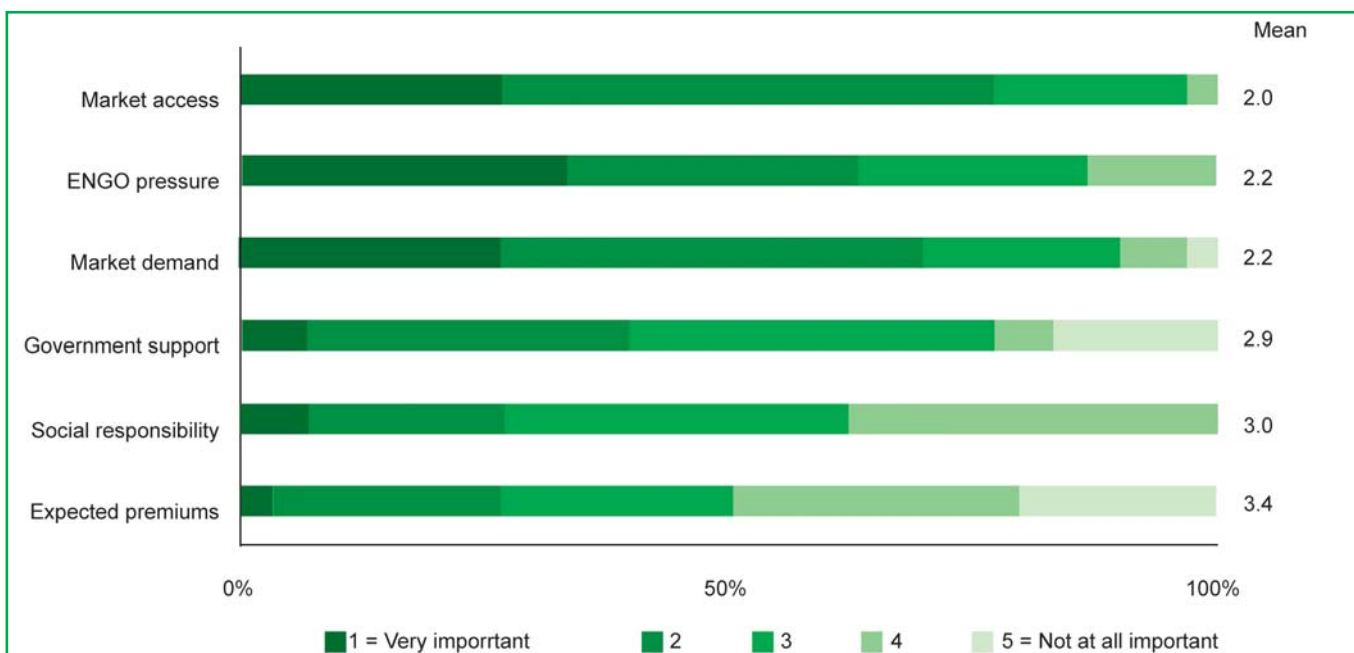
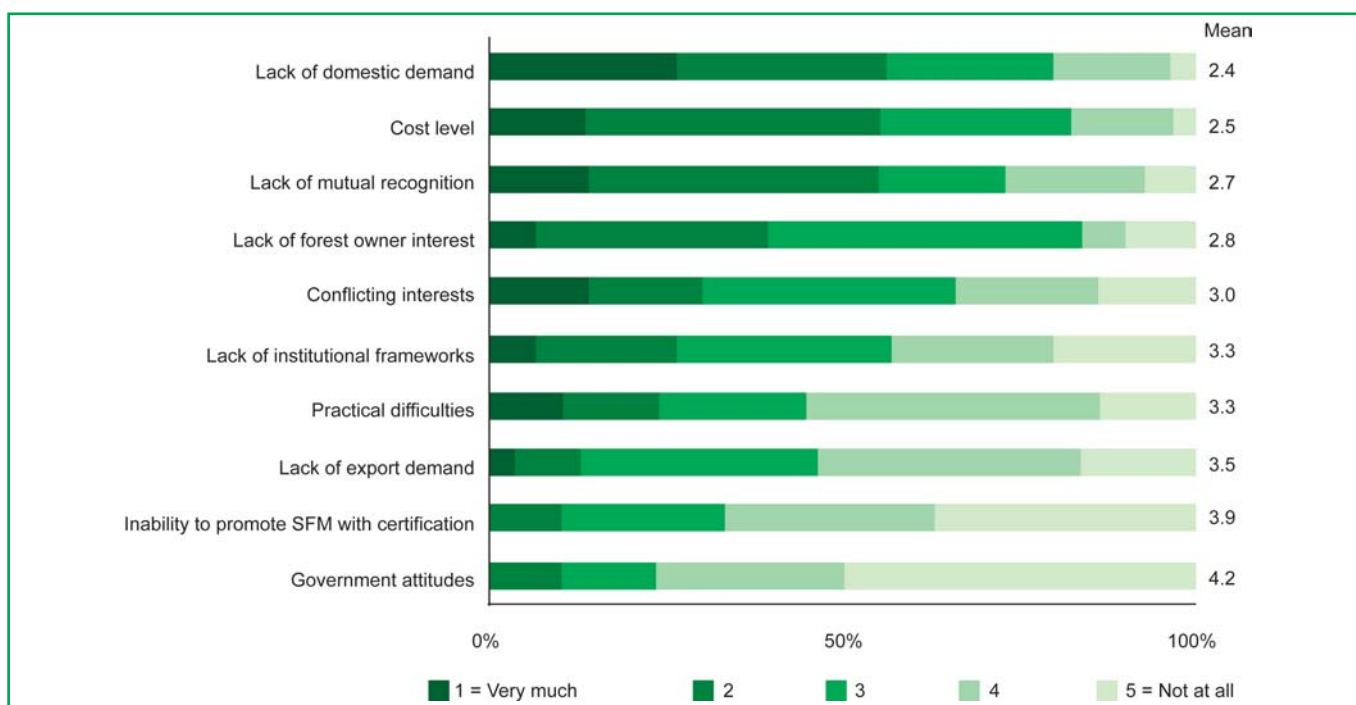


FIGURE 1: Drivers for forest certification.

<sup>5</sup> Bass, S. and Simula, M. 1999. *Independent certification/verification of forest management. Background Paper presented at World Bank/WWF Alliance Workshop Washington, D.C., 8-9 November 1999.*

<sup>6</sup> Raunetsalo, J., Juslin, Dr. H., Hansen, Dr. E. and Forsyth, K. 2002. *Forest certification update for the UNECE region summer 2002. Geneva timber and Forest Discussion Paper, ECE/TIM/DP/25, United Nations, New York and Geneva, 2002.*



**FIGURE 2:** Barriers to development of forest certification.

## Main Certification Schemes

While the American Tree Farm System (AFTS) may claim to be certifying the practice of sustainable forestry since 1941, in reality the first true certification scheme was that developed by Forest Stewardship Certification (FSC). Since FSC became operational in 1994, there have been increasing number of certification schemes. The majority of these operate at a national level, while only FSC and the Programme for the Endorsement of Forest Certification Schemes<sup>7</sup> (PEFC) claim to operate at a global level.

The main schemes in terms of area certified are:

- ▶ American Tree Farm System (AFTS);
- ▶ Canada Standards Association Standard (CSA);
- ▶ Forest Stewardship Council (FSC);
- ▶ Malaysian Timber Certification Council (MTCC);
- ▶ Programme for the Endorsement of Forest Certification Schemes (PEFC); and
- ▶ Sustainable Forestry Initiative (SFI).

These five schemes account for over 97% of certified forests. There are other national schemes but an outline of them is beyond the scope of this paper.

## American Tree Farm System

The American Tree Farm System (AFTS) is a national programme operating in the United States of America (USA) that promotes the sustainable management of forests through education and outreach to private forest landowners. Founded in 1941, AFTS consists of 10.2 million ha of forests and 61,000 forest owners. Certification through the AFTS is under the American Forest Foundation (AFF).

In recent years, AFTS has updated its standards and guidelines and has established minimum education and experience requirements for certifying foresters and technicians. It has also established third-party audits. Certification in AFTS is a voluntary process. Owners who want their tree farm certified allow a qualified AFTS forest professional to inspect their property. If the property meets AFF’s standards and guidelines for forest sustainability, the owner receives a certificate and the recognisable diamond shaped Tree Farm sign. Properties are re-inspected every five years to maintain certification status. There is no charge to the landowner for the inspection. It does not have a chain of custody.

Certification is normally on an individual owner basis but AFTS have now introduced the possibility of group

<sup>7</sup> Formerly called the Pan European Forest Certification.

certification and one group has been certified to date comprising 37 owners and 7,000 ha. The AFF standard encompasses nine standards, for example Standard 5: Air, Water and Soil Protection, a performance measure or measures for each standard and an indicator or number of indicators for each performance measure.

AFTS joined PEFC in 2002.

## Canada Standards Association Standard

The Canadian Standards Association (CSA) is an independent, not-for-profit, membership based organisation engaged in standards development and certification activities. CSA was chartered in 1919 and has developed over 2000 standards for various industries. In 1973 it was accredited by the Standards Council of Canada (SCC), the federal agency responsible for Canada's National Standards System.

The CSA has a separate division, called QMI, which carries out registration of management systems, including the CSA's Sustainable Forest Management system. The CSA International Division undertakes product certification. CSA International's Forest Products Group delivers the Forest Products Marking Programme, which is the chain of custody, and product-marking component of the CSA SFM Programme<sup>8</sup>. The range of products covered includes timber, pulp and paper, maple syrup and Christmas trees.

The National Standard, developed in 1996, was reviewed during 2000-01 and subsequently approved and implemented in 2002. It is subject to review every five years. The standard sets out 'requirements' under four headings: SFM, Public Participation, SFM Performance and SFM Systems.

To become certified, the organisation must go through a third-party independent audit to the SFM requirements in this standard. Audits are undertaken by accredited certifiers and certified auditors who are independent of the standards-writing body (CSA). In addition to the initial audit, there are mandatory annual reviews, which include both a document

review and on-site checks of the forest to ensure progress is being made towards the achievement of targets and that the SFM requirements are being upheld. A full re-certification audit is required periodically following the initial certification, in accordance with the requirements of the Standards Council of Canada.

To date some 33 certificates representing 28.4 million ha have been issued. This compares with 8.8 million ha in mid 2002 and 5.4 million ha in mid 2001<sup>9</sup>. According to the Forest Products Association of Canada, the projected area by the end of 2006 will increase to over 70 million ha.

CSA International is a member of the PEFC.

## Forest Stewardship Council

The Forest Stewardship Council (FSC) was formed in 1993 by a grouping of concerned people drawn from the environmental, social and economic sectors. It was established to support environmentally appropriate, socially beneficial and economically viable management of the world's forests. In 1994 it became a membership organisation.

The FSC operates (i) a forest management standard, (ii) an international accreditation programme for certifiers, (iii) a trademark that can be used in labeling products from certified forests, and (iv) a communication/advocacy programme. It has strong links with World Wildlife Fund for Nature (WWF) which assisted in its formation.

While the FSC has a generic standard based on its principles and criteria, standards are developed at a national or regional level. Once a standard has been finalised, it must be approved by FSC international secretariat and then by the FSC Board. This ensures (a) that the standard setting process conforms to FSC rules and (b) the standard itself complies with FSC principles and criteria. There are 17 adopted regional standards in nine countries.

There are 12 FSC accredited certification bodies. To become certified, a forest owner/manager must request an FSC accredited organisation to certify the forest. The certification organisation undertakes an audit. If the forest complies with the FSC standard, then a certificate is issued.

<sup>8</sup> FERN 2004. *Footprints in the forest: Current practice and future challenges in forest certification*. Downloadable from [www.fern.org](http://www.fern.org).

<sup>9</sup> Raunetsalo, J., Juslin, Dr. H., Hansen, Dr. E. and Forsyth, K. 2002. *Forest certification update for the UNECE region summer 2002*. Geneva timber and Forest Discussion Paper, ECE/TIM/DP/25, United Nations, New York and Geneva, 2002.

Even where a certificate is issued, conditions may be attached requiring the owner/manager to take corrective action within a specified time period. Certification is subject to an annual audit inspection and to a re-assessment after five years.

As of 5 January 2004, there were 40.22 million ha in 59 countries certified under FSC. This compares with 29 million ha in May 2002 and 24 million ha in mid 2001. As of 3 February there were 2,911 chain of custody certificates and 589 forest management certificates encompassing some 73 countries.

## **Programme for the Endorsement of Forest Certification Schemes (PEFC)**

The Programme for the Endorsement of Forest Certification Schemes (PEFC) was established in 1999 mainly by national associations of forest owners as the Pan European Forest Certification (Framework). The PEFC Council is an independent, non-profit, non-governmental organisation which promotes sustainably managed forests through independent third party certification. It is a global umbrella organisation for the assessment and mutual recognition of national forest certification schemes. These national schemes build upon the inter-governmental processes for the promotion of sustainable forest management.

The certification procedure is required to comply with ISO Guides 62, 65 and 66. The vast majority of the PEFC-endorsed schemes certify at the regional level although there is certification at FMU level and group schemes. A regional certificate is usually issued by a third party certifier to a regional applicant entity, which qualifies all forests in that region for the certification process. Once a region is thus 'certifiable', forest owners have to take an active step in order to join the regional certification by signing an agreement with the regional entity. Only the forests of those forest owners who commit themselves to respecting PEFC minimum requirements (by signing the agreement) are considered as certified forests. In Sweden, field visits are mandatory before a forest can be certified, but this is not the case in France and Germany.

PEFC has in its membership 27 independent national forest certification schemes, the majority of which are European based, but including Brazil, Canada, Malaysia and the United States. Of these schemes some 13 have been approved by the PEFC Council. To be approved, a national standard should be based on the Pan European Criteria for Sustainable Management or criteria developed by other regional processes such as the Montreal Process. Inclusion of seven of the eight International Labour Organisation (ILO) core standards<sup>10</sup> is now a requirement of all PEFC schemes.

At the end of January 2004, there were 52.34 million ha certified under PEFC across 13 European countries. This compares with 43.1 million ha in July 2002 and 37 million ha a year earlier.

## **Sustainable Forestry Initiative (SFI)**

The Sustainable Forestry Initiative programme was launched in October 1994 by the American Forest and Paper Association (AF&AP). In 1998, the SFI programme's original *Principles and Implementation Guidelines* were modified to create an industry standard. Later that year, the SFI programme added voluntary verification options that allowed first-, second-, and third-party approaches for programme participants to declare their conformance with the Sustainable Forestry Initiative Standard (SFIS). In September 2000, the independent multi-stakeholder Sustainable Forestry Board (SFB) was established to manage the SFI programme standard and verification procedures and SFI programme compliance. The SFB is now seeking status as an independent non-profit organisation. The SFB has 15 members with one third from programme participants, one third from the forest sector and one third from the conservation and environment community.

The standard comprises eleven broad objectives, e.g. 'manage the visual impact of harvesting and other forest operations'. Under each objective, a performance measure is defined together with core SFI Indicator(s) and other SFI Indicators. However, unlike other standards, there is flexibility in that participants in association with the lead verifier can adapt the standard to their own conditions.

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<sup>10</sup> *Right to Organise and Collective Bargaining Convention; Freedom of Association and Protection of the Right to Organise Convention; Forced Labour Convention; Abolition of Forced Labour Convention; Discrimination (Employment and Occupation) Convention; Equal Remuneration Convention and Minimum Age Convention.*

Certification is normally on a company basis but since 2002 a number of pilot group schemes are being evaluated.

To become certified a company engages an accredited certification body. The company and certification body then agree the scope and standard to be used. The certification body undertakes a review to determine if the company meets the SFI standard. The company and certification body agree on corrective actions that may be required. Once a certificate is issued, the company is subject to periodic surveillance where use is made of SFI on a product label. Otherwise the company is re-assessed within three to five years.

The SFI certifies forests in both the US and Canada. The SFI is a member of PEFC and there is mutual recognition agreement with the ATFS. At the end of September 2003 there were 41.6 million ha certified under SFI in the US and Canada. This compares with 32.5 and 12.4 million ha in mid 2002 and 2001 respectively.

## Certified Forest Area

The total forest area certified at the beginning of 2004 was estimated as being 177.4 million ha (Table 3). This compares with 173 million ha estimated by Forest Certification Watch at the end of 2003. The differences are due to slight differences in reporting periods.

Europe and North America dominate the certified area accounting for 43% and 49% respectively. On a world basis, some 5% of the forest area is now certified. What is perhaps disappointing is that those forests identified as being most at risk from deforestation and unsustainable forest management practices represent only a small proportion of areas certified.

The area certified continues to grow at a rapid rate. Year 2003 saw an estimated 31% increase in the area of certified forests. This increase was largely due to a doubling of the certified area in Canada under the CSA and SFI schemes.

Within the EU, certified forests now account for an estimated 53 million ha or almost half of the forest area (Table 4). It was not possible to correct the figures in Table

**TABLE 3:** Certified forest areas (ha) beginning 2004.

Region	FSC	PEFC	Other	Total	% Certified area
EU	11,949,759	41,005,950	-	52,955,709	30%
Russia	1,395,479	-	-	1,395,479	1%
Non EU	11,867,346	11,331,503	-	23,198,849	13%
North America	8,104,187	-	79,326,750	87,430,937	49%
Latin America	4,332,756	-	950,000	5,282,756	3%
Africa	1,645,685	-	-	1,645,685	1%
Asia and Oceania	1,127,472	-	4,331,406	5,458,878	3%
World	40,422,684	52,337,453	84,608,156	177,368,293	100%

4 to account for areas certified under more than one scheme but these areas are relatively small. The growth in certified areas within the EU was relatively small over the past year with the main expansion occurring in non-EU countries which more than doubled the area certified over the past two years.

**TABLE 4:** Certified forest area ('000 ha) in EU countries beginning 2004.

Country	Forest area	FMP area	Area certified	% area certified
Austria	3,886	3,886	3,928	102%
Belgium	728	656	169	23%
Denmark	455	455	8	2%
Finland	21,935	21,900	22,298	102%
France	15,341	15,341	2,992	20%
Germany	10,740	10,740	7,158	67%
Ireland	659	551	438	66%
Italy	10,003	1,117	11	0.1%
Netherlands	375	375	127	34%
Spain	14,370	11,694	88	1%
Sweden	27,134	27,134	14,573	54%
United Kingdom	2,794	2,319	1,165	42%
Portugal	3,666	-	-	0%
Greece	3,599	-	-	0%
Totals	11,685	96,168	52,956	46%

The main certification scheme in Europe is now the PEFC with 52.2 million ha as against the FSC with 25.2 million ha (Table 5). The PEFC with an estimated 29.5% of all certified areas is the largest scheme worldwide, even though it has only certified areas in Europe to date.

The percentage distribution of FSC areas was compared with that at the end of 1999<sup>11</sup>. It shows:

- (i) Europe still accounts for 62%;
- (ii) North America increased from 14% to 20%;
- (iii) Africa declined from 14% to 4%;
- (iv) South and Central America increased from 8% to nearly 11%;
- (v) Asia and Oceania remained constant at 2%.

While the focus of attention to date has perhaps been on the area certified under the different schemes, increasingly into the future, the issue will not be whether an area is certified but rather on whether certification has been effective. There are considerable differences between the five schemes outlined in terms of:

- (i) public participation and disclosure;
- (ii) how the standard was developed;
- (iii) performance based or system based scheme;
- (iv) certification procedures.

The initial driving forces for certification were concern over deforestation, lack of action by international processes, mistrust of industry and unsustainable forest practices. The hope was that certification would result in an improvement in sustainability and a reduction in deforestation. However, there is no process to determine the effectiveness or otherwise of the various schemes. Notwithstanding this concern, forest certification must be viewed as being positive.

**TABLE 5:** Areas (million ha) under certification schemes.

Certification Scheme	Total Area	Europe	North America	Rest of World	% Share
ATFS	10.93	-	10.93	-	6.2%
CSA	28.40	-	28.40	-	16.0%
FSC	40.42	25.21	8.10	7.11	22.8%
PEFC	52.34	52.34	-	-	29.5%
SFI	40.00	-	40.00	-	22.5%
Other	5.28	-	-	5.28	3.0%
Total	177.37	77.55	87.43	12.39	100

<sup>11</sup> Thorber, K. 1999. Overview of global trends in FSC certificates. Instruments for Sustainable Private Sector Forestry. International Institute for Environment and Development, London.