

Advanced tools and harmonised goals

Systems for tracing the origin of wood were further improved in all forest units during 2002. In addition to ensuring that wood comes from sustainable sources, such systems provide one of the most effective ways to combat illegal logging.

The Group's Northern European wood procurement units harmonised their wood procurement principles in 2002. All units operating in the Nordic Countries, Russia, the Baltic Countries and Central Europe now apply similar environmental and social responsibility principles to all sources of fibre.

Ensuring raw material procurement is sustainable, and minimising environmental impacts remain the core elements of the new principles, but greater emphasis is now also given to social responsibility and communications. Broadening third-party-verification to cover all sources of wood will be the next step towards ensuring full compliance with these principles.

Social, ecological and economic sustainability are the cornerstones of all of Stora Enso's wood procurement. Stora Enso's policies and principles form the common basis for all fibre procurement operations. Traceability systems are among the most vital tools for the practical implementation of these policies and principles.

Traceability in three steps

New complementary traceability guidelines have been adopted by Stora Enso Skog, Stora Enso Metsä, Stora Enso Forest Central Europe and Stora Enso Timber's wood procurement operations. The guidelines set out a framework for regional and national systems. Traceability systems cover fibre origin data from the cutting area all the way until the fibre first enters Stora Enso's possession, at a terminal, mill or transport point.

The guidelines set out three distinct operational phases for traceability systems – contract clauses, the registration and storage of wood origin data, and audits to verify the whole system.

An efficiently operating wood traceability system improves awareness of the importance of environmental and social values amongst all stakeholders right along the wood supply chain. One significant example of how this work has been done in 2002 is Stora Enso Skog's traceability system, which now covers all the wood coming into Stora Enso's possession in the Baltic Countries.

Meanwhile, Stora Enso Timber and Stora Enso Forest Central Europe have also introduced traceability systems, which will be developed for eventual external certification.

Ecology and economy

In Sweden, ecological landscape plans now cover the entire area of 1.4 million hectares where they are applicable – some 87% of Stora Enso Skog's productive forest holdings.

Areas of special biodiversity value are set aside from wood harvesting activities. The estimated cost of this nature conservation work corresponds to a 10% reduction in annual cutting, meaning that each year in Sweden Stora Enso voluntarily refrains from harvesting wood worth approximately EUR 9 million, for the benefit of biodiversity.

Watercourses are among the valuable biotopes in wood procurement areas. Stora Enso Skog has developed special guidelines to instruct machine operators how best to cross watercourses.

In Finland, Stora Enso Metsä received the best score for the sixth con-



Stora Enso's Anne Härkönen checks kvartal markings in a Russian forest stand. Kvartals are grid units of about 2 km² which form the backbone of Russian forest management systems, and are also utilised in Stora Enso's traceability system.

secutive year in the Tapio Forestry Development Centre's national ecological quality inventories of felling operations in 2002. The factors investigated included the preservation of valuable biotopes, the quality of water protection in wood harvesting, the consideration given to landscape values, and standards of forest management.

In Canada, Stora Enso Port Hawkesbury signed a forest management agreement with the Unama'ki Institute of Natural Resources, which represents the indigenous Mi'kmaq peo-

ple of Cape Breton Island. Stora Enso is assisting with forestry training and capacity building, while Mi'kmaq traditional ecological knowledge will be used to improve the sustainability of forestry.

Wiping out illegal logging

Unfortunately not all actors in the international wood market apply the same rules. Illegal logging is harmful to the whole sector and creates distortions in pricing. It is also impossible to control the working conditions of illegal harvesters' employees. Stora

Enso does not co-operate with wood suppliers who fail to comply with Stora Enso's principles.

Traceability systems are among the most effective methods to combat the unsustainable use of forest resources, as well as illegal logging. Stora Enso insists that partners everywhere comply with their respective national legislation, as well as Stora Enso's own policies and principles.

[Read more in the Web report](#)

Key figures

The Group used a total of 41 million cubic metres (solid under bark) of wood in 2002, almost three-quarters of which was procured in Western Europe. Most of the wood from Europe and North America comes from small private forest holdings, larger state-owned holdings and land leased by the Group.

Stora Enso owns 45% of Veracel, a company that manages plantations in Brazil, and 67% of the PT Finnantara Intiga plantation company in Indonesia. Veracel has approximately 62 000 hectares of eucalyptus plantations, and Finnantara 35 000 hectares of acacia. Stora Enso's forest operations in Celbi, Portugal, cover 45 000 hectares of *Eucalyptus globulus*, and account for 50% of Celbi Mill's wood consumption.

ENVIRONMENTAL MANAGEMENT SYSTEMS

Stora Enso Forest		
Stora Enso Forest Sweden (Stora Enso Skog)	EMAS	– Wood Supply Unit audited in December 2000 – registration granted in 2001
	ISO 14001	– Wood Supply Unit audited in December 2000 – certification granted in 2001 – Ludvika Management Region certified in 1999
Stora Enso Forest Finland (Stora Enso Metsä)	EMAS	– the first Finnish forestry organisation approved for an EMAS test register in 1999 – transferred to the main EMAS register in connection with the revision of EMAS regulations – new EMAS statement published in 2002
	ISO 14001	– certification granted in 1998 – renewed in 2001 after monitoring audit
Stora Enso Forest Central Europe	EMAS ISO 14001	– EMAS registration and ISO 14001 certification processes are to be started up
Stora Enso North America		
Stora Enso North America Forest Resources, USA	ISO 14001	– certification granted in early 2002
Stora Enso Port Hawkesbury Limited, Woodlands Unit, Canada	ISO 14001	– certification audited for renewal in December 2001 and granted in January 2002 – certification covers planning, harvesting, silviculture, road construction on company-controlled lands and all wood transportation – includes a programme designed to encourage principle wood suppliers to adopt good stewardship practices
Plantations		
Stora Enso Celbi, Portugal	ISO 14001	– certification granted in early 2001 – renewed in February 2002
PT Finnanarta Intiga, Indonesia	ISO 14001	– certification process started in 2002; completion due during 2003
Veracel, Brazil	ISO 14001	– certification process started in July 2001; due to be granted in early 2003 – includes forestry management activities and will cover planting, plantation maintenance, harvesting and wood transportation by truck and by barge

FOREST CERTIFICATION SYSTEMS

Stora Enso Forest		
Stora Enso Forest Sweden (Stora Enso Skog)	FSC	All Stora Enso Skog's forest holdings in Sweden are FSC-certified. The Ludvika management region was the first area in Sweden to be granted FSC certification, back in 1996. All the transportation of wood from Stora Enso's forests to measuring stations at mills is chain-of-custody certified. Part of Norrsundet Mill's pulp production also has FSC chain-of-custody certified pulp.
Stora Enso Forest Finland (Stora Enso Metsä)	FFCS PEFC	Stora Enso Metsä participates in the Finnish Forest Certification System (FFCS), which is endorsed by PEFC. The chain-of-custody system covers all fibre sources from the forests to the mills.
Stora Enso Forest Central Europe	FSC PEFC	The unit is covered by PEFC chain-of-custody certification. The Management Region Maxau also has FSC chain-of-custody certification.
Stora Enso Timber		
	PEFC FFCS FSC	Bad St. Leonhard was Timber's first sawmill in Austria to receive PEFC certification, in 2002. The remaining sawmills in Austria and the Czech Republic are scheduled to receive PEFC certification during 2003. All sawmills in Finland have PEFC certification. Ala, Gruvön and Linghed Sawmills in Sweden have FSC certification, as does Imavere Sawmill in Estonia.
Stora Enso North America		
Stora Enso North America Forest Resources, USA	SFI SM	The Sustainable Forestry Initiative SM (SFI) certification of Stora Enso North America Forest Resources, USA, covers wood procurement practices and procedures. A Public Audit Summary of Sustainable Forest Initiative SM (SFI) certification findings is available to stakeholders.
Stora Enso Port Hawkesbury Limited, Woodlands Unit, Canada	SFM	Sustainable Forest Management (SFM) certification of Stora Enso Port Hawkesbury Limited Woodlands Unit, Canada was completed in December 2001, meeting both CSA and SFI standards. The CSA standard is applied to company-controlled lands, and the SFI standard is applied to all land management and wood procurement activities. Port Hawkesbury is the first forestry operation in North America to be approved for both CSA and American Forest & Paper Association (AF&PA) environmental certification.

PEFC – The Pan-European Forest Certification Scheme, which endorses the FFCS. The SFISM and CSA Z809 systems are also PEFC members. FFCS – The Finnish Forest Certification System. FSC – Certification by the Forest Stewardship Council. SFISM – The Sustainable Forestry Initiative of the American Forest & Paper Association. CSA Z809 – Forestry certification criteria of the Canadian Standards Association Program for Sustainable Forest Management.

Totally Chlorine-Free or Elemental Chlorine-Free?

Stora Enso has 15 pulp mills, all but one of which use the Elemental-Chlorine-Free (ECF) process. Nymölla Sulphite Pulp Mill uses a Totally Chlorine-Free (TCF) process, which is also used for part of Kemijärvi Pulp Mill's production. No elemental chlorine is used in Stora Enso's mills. The choice of bleaching process is made by each mill to optimise quality, production and environmental impacts.

ECF pulp production increased globally by about 17% in 2001 and now has a market share of approximately 75%. TCF production declined slightly, maintaining a small niche market amounting to 5% of world bleached chemical pulp production (AET, May 2002).

During the past 10–15 years extensive research has been carried out to assess how TCF bleaching affects the environment compared to ECF

bleaching. These studies show that both bleaching techniques give equally good results, as long as waste water is treated using modern methods. ■

Pulp balance 2002 ¹⁾

1 000 tonnes	Short-fibre	Long-fibre	Fluff	Total
Production	2 242	2 278	204	4 724
Sunila ²⁾ (50%)	0	151	0	151
Total production	2 242	2 429	204	4 875
Deliveries to own mills	1 941	2 111	0	4 052
External deliveries	301	318	204	823
External purchases	277	456	0	733
Pulp balance	24	-138	204	90

¹⁾ Figures are based on production and deliveries during 2002. ²⁾ Associated company.

Plantations – research co-operation in China

In China, Stora Enso and the Government of the Guangxi Zhuang Autonomous Region are conducting a pre-feasibility study for industrial-scale plantations and integrated pulp and paper operations. Special emphasis is put on establishing sustainable and environmentally sound working methods.

Stora Enso also signed in 2002 an agreement for co-operation in research and development with the Chinese Academy of Forestry in Beijing. This agreement establishes a basis for projects to examine reforestation and the use of plantation wood for paper-making, including the use of native poplar trees.

At Veracel, in Brazil, the Eucalyptus genome is being studied together with other Brazilian forestry companies, seven universities and the Brazilian Forest Research Center. Around 500 kg of native tree seeds were also collected under the Atlantic Rainforest Program in 2002. Seedlings are to be used to replant or enrich remnants of Atlantic rainforest habitat interspersed between eucalyptus plantations.

The harvesting operation at Veracel reached its first million cubic metres in 2002. A marine terminal for pulp wood deliveries was also completed.

Forest gardens in West Kalimantan, Indonesia, harbour significant plant species diversity, and can be used in the restoration of native lowland rain forest habitats. Forest gardens are also an important source of various forest products for local people, and are actively protected within the PT Finnantara Intiga plantation area. Stora Enso Forest Consulting has been co-ordinating a research project assessing biodiversity management in commercial tree plantations in the tropics. The project was completed in 2002. ■



According to research concluded in 2002, people living in the areas leased by PT Finnantara Intiga feel that tree plantations have had a positive impact on their livelihood. Measures taken in these areas have also contributed to conservation by restoring native rainforest species.

Concentrating on core business

Stora Enso has transferred some 600 000 hectares of its Finnish forests to Tornator, a new company which will concentrate on silviculture. Simultaneously, approximately 130 000 hectares of forest was auctioned off in the USA. These divested forests accounted for less than 10% of the Group's annual wood procurement. Stora Enso still owns about 2 million hectares of forest, including 1.9 million hectares in Sweden, where divestment options are being investigated. This type of restructuring is in line with Stora Enso's long-term strategy to concentrate on core business areas.

Organisation

Stora Enso Northern European Forest Units are Stora Enso Metsä in Finland (including Russia), Stora Enso Skog in Sweden (including the Baltic Countries), and Stora Enso Forest Central Europe.

The Stora Enso North America Forest Resources Unit is responsible for wood procurement for the Group's US operations, and the management of company-owned land in Ontario, Canada. The Stora Enso Port Hawkesbury Woodlands Unit is responsible for wood procurement and the management of company land and licensed Crown lands in Nova Scotia, Canada.

Stora Enso Timber is one of Stora Enso's core business areas, producing wood products. Sawmills in Austria and the Czech Republic use wood procured by Stora Enso Timber's own wood procurement organisations. Wood for other Stora Enso Timber sawmills in Finland and Sweden is procured by Stora Enso Metsä and Stora Enso Skog, respectively.

Frequently asked questions

Does Stora Enso buy wood from old-growth forests?

Stora Enso does not buy wood from protected areas or areas where protection is planned. According to Stora Enso's wood procurement principles, all fibre sources must be consistent with the key elements of social, ecological and economic sustainability. Definitions of such terms such as old-growth, ancient or intact remain unclear, especially since they are often used in different ways in different contexts. An overview of definitions of these terms can be found in Stora Enso's Environmental Report 2000.

Does Stora Enso buy illegally harvested wood?

Purchasing wood logged without legal authorisation is against the Group's wood procurement principles. Careful documentation of the origin of wood and long-term partnerships with contractors are effective ways to prevent illegal wood entering Stora Enso's possession. In each country, Stora Enso

seeks out and promotes the best practices, while also co-operating with authorities to wipe out illegal logging.

How does Stora Enso sanction partners who operate illegally?

Stora Enso constantly searches for the best and most sustainable practices within the Group's own operations, and insists that partners do the same. It is vital to ensure that the origin of wood can be traced in order to guarantee that the fibre comes from sustainable sources. Where suppliers fail to meet Stora Enso's standards, units may cancel contracts. Suppliers who fail repeatedly in this respect will not be considered for future contracts.

What are Stora Enso's global wood procurement principles?

According to Stora Enso's wood procurement principles, all fibre sources must be consistent with the key elements of social, ecological and economic sustainability – including a full respect

for human rights.

How does Stora Enso make sure that these principles are followed?

The majority of the wood procurement routines used by Stora Enso are covered by ISO 14001 and/or EMAS management systems. These systems are audited by independent verifiers to ensure compliance with Stora Enso's wood procurement principles.

Does Stora Enso's wood procurement threaten endangered species?

Ecological sustainability is a key element of Stora Enso's wood procurement policies. Landscape ecological planning and forest certification systems are examples of working tools used to ensure biodiversity is preserved. ■

[Read more in the Web report](#)