2. Is information about the products credible?

Sourcing and legality aspects

Origin
Where do the products come from?

Information accuracy
Is information about the products credible?

Legality
Have the products been legally produced?

Environmental aspects

Sustainability
Have forests been sustainably managed?

Special places
Have special places, including sensitive ecosystems, been protected?

Climate change
Have climate issues been addressed?

Environmental protection
Have appropriate environmental controls been applied?

Recycled fiber
Has recycled fiber been used appropriately?

Other resources
Have other resources been used appropriately?

Social aspects

**Local communities
and indigenous peoples**
Have the needs of local communities or indigenous peoples been addressed?

2. Is information about the products credible?

Knowing the context and conditions surrounding the harvesting of the raw materials and the manufacturing processes of the products is important. A knowledgeable buyer will be in a better position to properly assess the social and environmental claims of a product (e.g., wood was harvested under a Sustainable Forest Management (SFM) regime, etc.).

When information to support the claims of the product is not complete, accurate, or enough for the buyer to properly assess these claims, monitoring and verification are used to add credibility to the process. In some cases information may come from long and well-established business relationships. In other cases the buyer may wish to consult outside sources for additional information.

Monitoring and verification can take three forms:

1. **Self verification** – a producer monitors and reports about its own harvesting and manufacturing processes. Typical outputs include sustainability reports, emissions reports, reports on social indicators, resource usage reports, recycling reports, etc.

2. **Second party verification** – a buyer verifies that a supplier and/or the products of that supplier conform to a certain standard.

3. **Third party verification** – an independent party verifies that a supplier and/or its products conform to a certain standard. Independent, third-party verification is generally considered to provide more assurance.

Monitoring and verification systems tend to be designed differently depending on which part or aspect of the supply chain (**production in the forest** or **manufacturing processes**) they address:

● **Production in the forest** – the classical monitoring system – forest authorities enforcing relevant laws – can be a reliable system where governance is strong, but it may not be adequate where governance is weak (Question 3. Concerned business, environmental groups and labor and trade organizations, generally

agree that independent, third-party verification of forestry operations is desirable, particularly in areas of high risk (Box 2). Forest certification systems are intended to provide an alternative in this part of the supply chain.

Voluntary **forest certification** schemes have been developed to guide the marketplace. These systems allow interested producers to be independently assessed against a locally appropriate standard and to be recognized in the marketplace through a label that certifies compliance. The appropriateness of the standard includes having the right content for the right place, but also entails the process by which the standard was defined and implemented.

Forest certification

There are two major international systems for forest certification: the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Certification Systems (PEFC). Both are used by community and family-owned forests and large landowners and/or industrial operations.[3] These systems have similarities, but they also have differences that are considered important by their respective constituencies. Environmental organizations tend to prefer the FSC, while landowners and tenure holders tend to prefer PEFC. The choice of systems varies by geography, and many forest companies are certified to both systems depending on the location of their operations.

Table 2 provides an overview of the general characteristics of these two systems. Table 2 is NOT meant to be an exhaustive comparison. A proper comparison should include more detail of aspects such as compliance with international standards, system governance, accreditation, certification, criteria used as basis for the systems, performance on the ground, and others (Nussbaum and Simula, 2005). A list of comparisons can be found in Section III of this guide. Some of these comparisons represent the interests of specific stakeholder groups that claim there are significant differences between the certification systems.

---

[3] Although PEFC was established by the forest industry and trade and by forest owners' organizations, a considerable amount of areas certified by member schemes are industrial operations.

Manufacturing processes – once raw materials leave the forests and reach mills and factories, they may no longer differ significantly from those of other industries if processing facilities are located in developed areas. However, when mills and factories are in less developed areas there may not be enough government enforcement of environmental and social standards. Self- and third-party verification systems can be useful to report and verify status and progress in relation to general standards and organizational commitments (e.g., to reduce emissions or increase recycled content).

Environmental Management Systems (EMS) and Social Management Systems (SMS) can be useful in the manufacturing process. An EMS is generally defined as a series of processes and practices seeking to assess and reduce the environmental impact of an organization, while an SMS encompasses the management of interactions between an organization and its social environment. In general, EMS and SMS have four major elements (EPE, 2007; SMS, 2007):

Assessment and planning – identification of environmental and social aspects of interest, establishment of goals, targets, strategy and infrastructure for implementation.

Implementation – execution of the plan, which may include investment in training and improved technology.

Review – monitoring and evaluation of the implementation process, identification of issues.

Adaptive management and verification – review of progress and adjustments for continual improvement. Different EMS/SMS have various degrees of third-party verification.

The presence or absence of viable EMS and SMS programs can be useful in assessing a supplier's efforts to improve environmental and social performance and enhance compliance with pre-determined standards (EPE, 2007). Third-party verification systems, including chain-of-custody certification (Table 2) and some ecolabels (Box 3) can also be of help.

Factors to consider regarding monitoring and verification

- Many have compared certification standards, although comparisons are a complex task because of the many factors and elements that need to be considered. Section IV of this resource kit includes a list of resources about comparisons.

- Different stakeholders have different perspectives; certification standards are backed by different constituencies, reflecting their different interests, concerns, and values. Environmental organizations tend to prefer the FSC while industry and tenure holders tend to prefer PEFC.

- The choice of systems varies by geography, and many forest companies are certified to both systems depending on the location of their operations.

- Approximately 7% of the world's total forest area is currently certified. The area under certification is growing rapidly and so is the supply of certified products; however, there may be cases when it can be difficult to meet the demand of certified products. Most certified areas are in developed countries.

- In some regions small landowners have not embraced third-party certification.

- The need for independent monitoring and verification varies for different forest areas. A buyer with many supply chains might want to prioritize focusing on monitoring and verification efforts based on the perceived risks associated with sourcing from areas where information may be incomplete or misleading.

SELECTED RESOURCES: MONITORING AND VERIFICATION

Procurement requirements

Danish Government Procurement Policy for Tropical Forests (under review)	Requirements for monitoring and verification are covered through the certification process.
German Government Procurement Policy	Accepts FSC and PEFC as guarantee that wood and wood products certified under these systems come from verifiable legal origin and are produced under SFM.
Japanese Government Procurement Policy	Requires verification of legality and sustainability through various instruments and procedures such as wood industry associations' codes of conduct, self-verification mechanisms and forest certification systems. Certification systems that are recognized to meet monitoring and verification requirements include Japan's Sustainable Green Ecosystem Council, the Canadian Standards Association (CSA), the Indonesian Lembaga Ekolabel (LEI), the Malaysian Timber Certification Council (MTCC), PEFC, and SFI.
Public procurement policies for forest products and their impacts	Reviews verification requirements issued by public timber procurement policies in Belgium, Denmark, France, Japan, Netherlands, New Zealand and the UK.
CEPI Legal Logging Code of Conduct	Members commit to set up and use reliable verification systems, apply third-party certification of the chain-of-custody, and EMS.
Timber Trade Federation Responsible Purchasing Policy	Provides assistance and guidance to its members to verify compliance with the Federation's purchasing policy, as well as with UK central government sustainability and legality procurement requirements. Members are expected to complete annual management reports, which are evaluated by an independent auditor to assess compliance with the Federation's responsible purchasing policy.
FSC Controlled-Wood Standard	Standard is subject to third-party verification.
PEFC Guide for the avoidance of controversial timber	Standard is subject to third-party verification.
SFI Procurement Objective	For the US and Canada, requires participants to have an auditable system characterizing the lands where raw material is procured in compliance with best management practices. As needed, participants implement either individually, cooperatively or third-party evaluations of on-the-ground compliance.

Resources to assess requirements

CPET	Provides advice on obtaining evidence of compliance and means of verification. CPET's framework to assess compliance of certification systems with UK central government procurement requirements includes elements of certification and accreditation.
CEPI Certification Matrix	Compares the compatibility of certification systems with ISO guidelines for the accreditation of chain-of-custody standards.
Paper Profile	Provides information on whether or not a mill receives wood from certified forests and the certification systems used. It also includes a description of certified environmental management systems.
FCAG	Includes criteria to assess the absence of conflicts of interest in a certification scheme's decision-making process. It also includes criteria and requirements to assess the independence of the evaluation and verification of performance in forest management and the chain-of-custody standard. Criteria and requirements to assess the use of monitoring systems to evaluate overall management, and the social and environmental impacts are also included.
GFTN	Provides advice on setting up internal monitoring and tracking systems. Promotes credibly, third-party, certified products.
GPN	Prefers suppliers that implement EMS to monitor and improve performance, as well as suppliers that proactively disclose environmental information.
Good Wood. Good Business guide	Provides advice about third-party verification systems, as well as potential issues.
EPAT®	Rates degree of verification. It also rates whether a company has EMS, monitoring programs, and procedures to manage negative impacts on communities.
WWF Tissue Scoring	Rates the systematic tracking of paper-based materials, as well as whether tracking is monitored and independently verified. Rates companies' commitments to implement an EMS and making such commitments publicly available. Progress towards environmental and social policies should be reported through an annual corporate/environmental responsibility report.
WWF Paper Scorecard	Rates fiber from certified operations as well as manufacturing operations that implement EMS.
WWF Guide to buying paper	Promotes the use of EMS and third-party verification.

Box 3. Ecolabels (other than forest certification systems)

A company may want to inform consumers about the environmental claims of a specific product or service through the use of ecolabels.

Ecolabeling is a voluntary certification and verification process. The International Organization for Standardization (ISO) classifies three broad types of ecolabels (Global Ecolabeling Network, 2007):

- Type I: a voluntary, multiple-criteria-based third-party program that authorizes the use of environmental labels on products indicating overall preference of a product within a particular category based on life cycle considerations. Examples include the EU Flower and the Canadian Environmental Choice Program.

- Type II: a program involving self-declared environmental claims by parties likely to benefit from such claims. These programs often involve single attributes. An example is the Paper Profile.

- Type III: a program involving a declaration that provides quantified environmental life cycle product information provided by the supplier, based on independent verification, and systematic data presented as a set of categories of a parameter.

There are many ecolabels in the world. In addition to FSC and PEFC, other important ecolabels for wood and paper-based products include:

- Blue Angel (www.blauer-engel.de) – the oldest environmental ecolabel; initiated by the German Ministry of the Interior, it is now administered by the Federal Environmental Agency. Wood and paper-based products covered include building materials, different types of paper and cardboard, packaging materials, and furniture.

- Bra Miljöval (snf.se/bmv/english.cfm) (Good Environmental Choice) – the ecolabel from the Swedish Society for Nature Conservation started in 1988. Wood-based products covered include various types of paper.

- Environmental Choice Program (www.environmentalchoice.com) – owned by the Canadian government and administered by TerraChoice Environmental Marketing. Wood and paper-based materials covered include building raw materials, flooring, office furniture and various types of paper.

- Eco Mark (www.ecomark.jp/english/nintei.html) – administered by the Japan Environment Association, it covers various types of paper, board wood, and furniture and packaging materials.

- Environmental Choice (www.enviro-choice.org.nz) – a voluntary, multiple specifications labeling program endorsed by the New Zealand government and managed by the New Zealand Ecolabelling Trust. Wood-based products covered include various types of paper, furniture and flooring products.

- EU Flower (ec.europa.eu/environment/ecolabel/index_en.htm) – started in 1992 under the European Union Eco-labeling board. The EU Flower is active throughout the European Union and also in Norway, Liechtenstein and Iceland. Wood-based products covered include various types of paper and building materials.

- Green Seal (www.greenseal.org/certification/environmental.cfm) – developed by Green Seal Inc., an independent non-profit organization. Wood-based products covered include various types of paper, furniture, particleboard and fiberboard, and food packaging materials.

- Greenguard (greenguard.org) – products certified meet requirements of the US Environmental Protection Agency, the US Green Building Council, and Germany's Blue Angel ecolabel.

- Good Environmental Choice Australia (www.aela.org.au/standardsregister.htm) – designed by Good Environmental Choice Australia Ltd. Wood and paper-based products covered include various types of paper, flooring products, packaging materials, furniture and recycled and reclaimed timber.

- The Swan (www.svanen.nu/Eng/) – the official Nordic ecolabel introduced by the Nordic Council of Ministers. Certifies some paper products. It also certifies that durable wood products do not incorporate heavy metals or biocides and are produced from sustainably managed forests.

There may be products bearing ecolabels that do not actually meet the label's environmental standards. The International Organization for Standardization (ISO) and other institutions provide guidance on general labeling standards to help in selecting ecolabels:

- International Organization for Standardization (www.iso.org) – Standards 14020 through 14025 provide guidelines for ecolabels for first and third party verification.

- US Federal Trade Commission (www.ftc.gov/bcp/grnrule/guides980427.htm) – provides guidance on the use of ecolabels and the use of environmental marketing claims.

- Consumer Reports Eco-labels (www.greenerchoices.org/eco-lablels/eco-homecfm) – provides guidance, scorecards and comparisons of ecolabels in the US.

- The Global Ecolabeling Network (www.gen.gr.jp/eco.html) – provides background information, links to national members, and so on.

- The UK Government's Green Claims Code (www.defra.gov.uk/environment/consumerprod/gcc/pdf/gcc.pdf) – provides guidance on statements, symbols, descriptions and verification.

Sources: Global Ecolabeling Network, 2007.

Table 2. General characteristics of the two major systems for forest certification

Developed by	Forest Stewardship Council (FSC)		
GENERAL			
Established	Established in 1993 at the initiative of environmental organizations.		
Basic principle	FSC is a system of national and regional standards consistent with ten principles of SFM that cover the following issues: 1- Compliance with laws and FSC principles 2- Tenure and use rights and responsibilities 3- Indigenous peoples' rights 4- Community relations and workers' rights 5- Benefits from the forests 6- Environmental impact 7- Management plans 8- Monitoring and assessment 9- Special sites – high conservation value forests (HCVF) 10- Plantations	These principles were developed by a global partnership of stakeholders convened by FSC. The principles apply to all tropical, temperate and boreal forests and are to be considered as a whole. All national and regional standards are derived in-country from the ten principles. The principles are expected to be used in conjunction with national and international laws and regulations, and in compatibility with international principles and criteria relevant at the national and sub-national level (FSC Policy and Standards; principles and criteria of forest stewardship) (FSC, 1996). There is variation in regional standards and in interim standards adopted by auditing bodies.	
Components, members	All component standards carry the FSC brand. National initiatives currently exist in Argentina, Australia, Belgium, Bolivia, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Croatia, Czech Republic, Cote d'Ivoire, Denmark, Democratic Republic of Congo, Ethiopia, Ecuador, Estonia, Finland, Gabon, Germany, Ghana, Hungary, Ireland, Italy, Japan, Mexico, Mozambique, Netherlands,	Papua New Guinea, Peru, Poland, Romania, Russia, Slovakia, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States, Vietnam, and Zambia (FSC website).	
Stakeholder scope	FSC is a multi-stakeholder owned system; national standards are set by a consultative process in which economic, social, and environmental interests have equal weight (FSC website).		
Reach and extent	More than 93 million ha have been certified under FSC (as of November 2007) (FSC,2007).		
MONITORING AND VERIFICATION			
Chain-of-custody (CoC)	• The CoC standard is evaluated by a third-party body that is accredited by FSC and compliant with international standards. • CoC standard includes procedures for tracking wood origin. • CoC standard includes specifications for the physical separation of certified and non-certified wood, and for the percentage of mixed content (certified and non-certified) of products.	• CoC certificates state the geographical location of the producer and the standards against which the process was evaluated. Certificates also state the starting and finishing point of the CoC. (FSC policy on percentage-based claims, and various FSC guidelines for certification bodies)	
Inclusion of wood from non-certified sources	FSC's Controlled Wood Standard seeks to avoid: (a) Illegally harvested wood (b) Wood harvested in violation of traditional and civil rights (c) Wood harvested in forests where high conservation values are threatened by management activities (d) Wood harvested in forests being converted to plantations or non-forest use	(e) Wood from forests in which genetically modified trees are planted All certification holders are required to fully implement requirements by 1 January 2008. (FSC, 2004C) (Botriel, 2007).	
Verification	Requires third-party verification.		

This table provides an overview of the general characteristics of these two systems. This table is NOT meant to be an exhaustive comparison. A list of references to more detailed comparisons can be found in Section IV – Additional resources. (Additional sources: FSC, 2004A, 2004B, and 2006; Cashore et al., 2004)

Programme for the Endorsement of Forest Certification Schemes (PEFC)

GENERAL

Founded in 1999 in Europe, at the initiative of forest landowners as a certification system. PEFC later became an endorsement mechanism system. Many member certification systems predate PEFC.

PEFC is a mutual recognition mechanism for national and regional certification systems. Endorsed certification systems are to be consistent with internationally agreed environmental, social and economic requirements such as the Pan-European Operational Level Guidelines (PEOLG), the African Timber Organization (ATO) and International Tropical Timber Organization's (ITTO) Guidelines, as well as intergovernmental processes on criteria and indicators for SFM. The elements of SFM covered by these requirements may vary to fit the circumstances of the areas for which they were developed. For instance, the Pan-European Operational Level Guidelines cover the following:

1- Maintenance and enhancements of forest resources and their contribution to global carbon cycles
2- Maintenance and enhancement of forest ecosystem health and vitality

3- Maintenance of productive functions of forests
4- Maintenance, conservation and enhancement of biodiversity
5- Maintenance and enhancement of protective functions in forest management
6- Maintenance of socioeconomic functions and conditions

Endorsed certification systems are expected to be consistent with international agreements such as ILO core conventions, as well as conventions relevant to forest management and ratified by the countries such as the Convention on Biological Diversity (CBD), CITES and others.

There is variation among member certification standards with some standards exceeding PEFC requirements (PEFC, 2006A).

Component standards carry their own brand names, such as SFI in the US and the CSA in Canada. Recognized (endorsed) member country/systems include Australia, Austria, Belgium, Brazil (Cerflor), Canada (CSA), Chile (Certfor), Czech Republic, Denmark, Finland, France, Germany, Italy, Latvia, Luxembourg, Norway, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom,

and United States (the American Tree Farm System (ATFS) and SFI). PEFC endorses certification systems once they have successfully gone through the external assessment process using independent assessors (PEFC website). Other members include schemes from Belarus, Cameroon, Estonia, Gabon, Ireland, Lithuania, Malaysia, Poland, Russia, and Uruguay.

Multi-stakeholder participation is required in the governance of national schemes as well as in the standard-setting process (PEFC, 2006C).

More than 197 million ha have been certified under the PEFC standards (as of November 2007) (PEFC website).

MONITORING AND VERIFICATION

CoC certificates are issued based on: (i) compliance with Annex 4 and with Appendix 1 of the TD, or alternative appendices approved by the PEFC council; (ii) member scheme's definition of origin that is compatible with Appendix 4 and Appendix 1 or alternative appendices; and (iii) member scheme's CoC standard that is compatible with Annex 4 and Appendix 1 or alternative appendices.

• Only accredited certification bodies can undertake certification.

• CoC requirements include specifications for physical separation of wood and percentage-based methods for products with mixed content.

CoC certificates state the geographical location of the certificate holder; the standard against which the certificate was issued; and, identify the scope, product(s) or product(s) group(s) covered (PEFC, 2006A, 2006C, D and F).

PEFC's mandatory Guide for the avoidance of wood from controversial sources seeks to avoid wood from illegal or unauthorized harvesting.

Illegal harvesting includes harvesting in areas which are either protected by law or where a plan for strict protection has been

officially published by the relevant government authorities, unless permission to harvest has been granted. This also implies issues such as workers rights, health and safety, indigenous peoples' rights as protected by legislation (PEFC, 2006G).

Requires third-party verification.