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?

Unique forest values
Have unique forest values been protected?

Climate change
Have climate issues been addressed?

Environmental protection
Have appropriate environmental controls been applied?

Fresh and recycled fiber
Have fresh and recycled fibers been used appropriately?

Other resources
Have other resources been used appropriately?

Social aspects

Local communities, indigenous peoples, and workers
Have the needs of local communities, indigenous peoples, and workers 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. 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 Forest Certification

### Box 2. Areas of high and low risk of encountering unacceptable practices

Areas with higher risk of encountering unacceptable practices require more due diligence and more detailed information than areas with lower risk.

High-risk source areas may include:

• Areas that have unique ecological and socio-cultural features (unique forest values).

• Areas of political and social conflict.

• Areas where avoidance and violations of workers and/or indigenous rights are known to be high.

• Areas where the incidence of forestry-related illegal activity is known to be high.

Low-risk source areas may include:

• Sites that have been independently certified to appropriate credible standards. Not all certification labels are perceived by all stakeholders to offer the same level of protection against the risk of sourcing from controversial and unwanted sources.

• Sites where there are no ownership disputes or clear processes to resolve them fairly, and where illegal activity in the forestry sector does not typically occur.

• Areas known to have low corruption and where law enforcement exists.
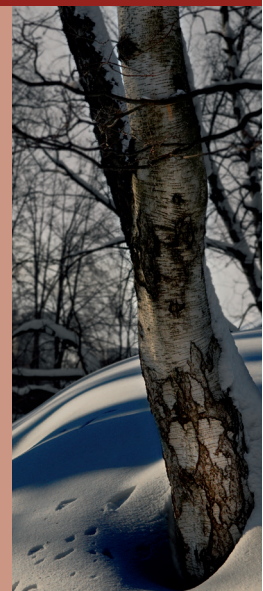
(PEFC). Both are used by community and family-owned forests and large landowners and/or industrial operations.[4] These systems have similarities, but they also have differences that are considered important by their respective constituencies. Environmental organizations tend to prefer the FSC, while 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 4 provides an overview of the general characteristics of these two systems. Table 4 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.

- **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 4) 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.

[4] In general, and at a global scale, large industrial forests and forests plantations are mostly certified to FSC, while public forests and small land holder forests are mostly certified to PEFC.

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 (http://www.ecologo.org/en/) – Founded by the Government of Canada, the Ecologo is North America's largest ecolabel program. Wood and paper-based materials covered include building raw materials, flooring, office furniture and paper products.

- 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) – 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 (www.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.geca.org.au) – 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 (http://www.greenerchoices.org/ eco-labels/) – provides guidance, scorecards and comparisons of ecolabels in the US.

- The Global Ecolabeling Network (www.globalecolabelling.net) – provides background information, links to national members, and so on.

- Ecolabel Index (www.ecolabelindex.com). – An online database that allows the user to research and compare selected ecolabels.

- The UK Government's Green Claims Code – provides guidance on statements, symbols, descriptions and verification.

Sources: Global Ecolabeling Network, 2007.

Table 3. 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- Maintenance of 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, amended in 2002). There is variation in regional standards and in interim standards adopted by auditing bodies.	
Components, members, extent	All component standards carry the FSC brand. National initiatives for forest management certification exist in Argentina, Austria, Australia, Belarus, Belize, Belgium, Bosnia and Herzegovina, Bolivia, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Costa Rica, Croatia, Czech Republic, Cote d'Ivoire, Denmark, Ethiopia, Ecuador, Estonia, Finland, France, Gabon, Germany, Ghana, Honduras, Hungary, India, Indonesia, Ireland, Italy, Japan, Kenya, Laos, Latvia, Lithuania, Luxembourg, Madagascar, Malaysia, Mexico, Mozambique, Namibia, Nepal, Netherlands,	New Zealand, Nicaragua, Norway, Panama, Paraguay, Papua New Guinea, Peru, Poland, Portugal, Republic of Congo, Republic of Korea, Romania, Russia, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, Suriname Sweden, Swaziland, Switzerland, Tanzania, Thailand, Turkey, Uganda, Ukraine, United Kingdom, Uruguay, United States, Venezuela, Vietnam, and Zambia . There are also FSC chain of custody certificates in a number of additional countries. 165 million ha have been certified under FSC (as of October 2010). (FSC website, October 2012).	
Stakeholder scope	FSC is a multi-stakeholder owned system. All FSC standards and policies are set by a consultative process. Economic, social, and environmental interests have equal weight in the	standard settint process. FSC follows the ISEAL Code of Good Practice for Setting Social and Environmental Standards. (FSC website).	
	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 establishes requirements to participants to establish supply-chain control systems, and documentation to avoid sourcing materials from controversial sources, including: (a) Illegally harvested wood, including wood that is harvested without legal authorization, from protected areas, without payment of appropriate taxes and fees, using fraudulent papers and mechanisms, in violation of CITES requirements, and others.	(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 from forests and other wooded ecosystems to plantations or non-forest uses (e) Wood from management units in which genetically modified trees are planted (FSC, 2006)	
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, 2006, 2004B, and 2006; Cashore et al., 2004)

Programme for the Endorsement of Forest Certification (PEFC)

GENERAL

Founded in 1999 in Europe, as an endorsement mechanism for independent, national certification systems.

PEFC is a mutual recognition mechanism for national and regional certification systems. PEFC's environmental, social and economic requirements for SFM build on international guidelines, criteria and indicators for SFM derived from intergovernmental processes such as the Ministerial Conference on the Protection of Forests in Europe (MCPFE), and the African Timber Organization (ATO) and International Tropical Timber Organization's (ITTO) processes for tropical forests among others. PEFC's SFM standards cover the following aspects:

1- Maintenance and appropriate enhancement of forest resources and their contribution to the global carbon cycle
2- Maintenance and enhancement of forest ecosystem health and vitality
3- Maintenance and encouragement of productive functions of forests (wood and no-wood)
4- Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems

5- Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water)
6- Maintenance of socioeconomic functions and conditions
7- Compliance with legal requirements

Endorsed certification systems are assessed 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.

All national PEFC standards are independently assessed to ensure that they meet PEFC International's Sustainability Benchmarks. There is some variation with standards exceeding these requirements (PEFC, 2010).

PEFC endorses certification systems once they have successfully gone through the external assessment process using independent evaluators.

Endorsed SFM standards can carry their own brand names. Endorsed standards include the following: Australia, Austria, Belarus, Belgium, Brazil (Cerflor), Canda (CSA, SFI), Chile (Certfor), Czech Republic, Denmar, Estonia, Finland, France, Germany, Italy, Latvia,

Luxembourg, Malaysia (MTCS), Norway, Poland, Portugal, Russia, Slovak Republic, Spain, Sweden, Switzerland, United Kingdom, and the United States (SFI, American Tree Farm System). There are also PEFC chain of custody certifications and PEFC stakeholder members in a number of additional countries.

254 million ha have been certified under PEFC (as of October 2012) (PEFC website).

Multi-stakeholder participation is required in the governance of national schemes as well as in the standard-setting process Standards and normative documents are reviewed periodically at intervals that do not exceed five years. The PEFC Standar Setting standard is

based on ISO/IEC Code for good practice for standardization (Guide 59) and the ISEAL Code of Good Practice for Setting Social and Environmental Standards (PEFC 2010A.

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- Quality or environmental management systems (ISO 9001:2008 or ISO 14001:2004 respectively) may be used to implement the minimum requirements for chain of custody management systems required by PEFC.
- 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.
- The CoC standard includes specifications for tracking and collecting and maintaining documentation about the origin of the materials.

- The CoC standard includes specifications for the physical separation of certified and non-certified wood.
- The CoC standard includes specifications about procedures for dealing with complains related to participant's chain of custody.

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, 2010B).

The PEFC's Due Dilligence system requires participants to establish systems to minimize the risk of sourcing raw materials from:

(a) forest management activities that do not comply with local, national or international laws related to:
- operations and harvesting, including land use conversion,
- management of areas with designated high environmental and cultural values,

- protected and endangered species, including CITES species,
- health and labor issues,
- indigenous peoples' property, tenure and use rights,
- payment of royalties and taxes.
(b) genetically modified organisms,
(c) forest conversion, including conversion of primary forests to forest plantations.
(PEFC, 2010B).

Requires third-party verification.

SELECTED RESOURCES: MONITORING AND VERIFICATION

See "Guide to the Guides" chapter for more information on each resource.

Procurement requirements

Belgian Government Procurement Policy

CEPI Legal Logging Code of Conduct

Danish Government Procurement Policy for Tropical Forests (under review)

Dutch Government Procurement Criteria for Timber

European Community Green Purchasing Policy

FLEGT & VPAs

French Policy on Public Procurement of Timber and Wood Products

FSC Controlled-Wood Standard

German Government Procurement Policy

Japanese Government Procurement Policy

Mexican Federal Government Procurement Policy

New Zealand Timber and Wood Products Procurement Policy
PEFC Due Diligence System

Public Procurement Policies for Forest Products and their Impacts

SFI Procurement Objective

Swiss Declaration Duty for Timber

UK Timber Trade Federation Responsible Purchasing Policy

Resources to assess requirements

CPET

Enhancing the Trade of Legally Produced Timber, a Guide to Initiatives

Environmental Paper Network

EPAT®

FCAG

Carbon Disclosure Project

Forest Governance Learning Group

FPAC: A Buyers' Guide to Canada's Sustainable Forest Products (the report)

GFTN

Global Timber Tracking Network

Good Wood. Good Business Guide

GPN

Illegal-logging.info

IWPA's Wood Trade Complicance Training and Due Diligence Tools Course

New Zealand Government Paper Buyers' Guide

Paper Profile

PREPS

Project LEAF

SmartSource

Standard Practice for Categorizing Wood and Wood-based Products According to their Fiber Sources

String

Sustainable Forest Finance Toolkit

Timber Tracking Technologies Review

Timber Trade Action Plan

The Forest Trust

Two Sides

WWF Certification Assessment Tool (CAT)

WWF Guide to Buying Paper

WWF Paper Scorecard

WWF Tissue Scoring