

Sustainable Procurement of Wood and Paper-based Products

An introduction

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World Business Council for
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WORLD
RESOURCES
INSTITUTE

www.sustainableforestprods.org

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**Disclaimer**

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A message from the Presidents of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD)

The *Sustainable Procurement of Wood and Paper-based Products: An introduction* – and its associated *Sustainable Procurement of Wood and Paper-based Products: Guide and Resource Kit* – represents a significant step forward in helping organizations of all sizes and types find their place in ensuring the sustainability of the earth's forest-based resources. Decisions regarding the purchase and use of wood and paper-based products can have far-reaching, long-term impacts for the forests where they are harvested, the communities supported by wood-using industries, and the places where those products are purchased and used.

It is our hope that organizations will find this Introduction and the complete Guide and Resource Kit to be useful tools in developing an effective procurement policy for wood and paper products.

We appreciate the financial support provided for this project by the Bank of America, and the input and reviews offered by our many partners and friends in the business and environmental communities. It has been a collaborative, and therefore effective, effort by all involved.

We welcome your comments, questions and opinions.

Sincerely,



Jonathan Lash,
President
WRI



Björn Stigson,
President
WBCSD

A photograph of a forest with tall, thin trees and a path covered in fallen leaves. The trees are mostly deciduous with green foliage. The path is made of brown leaves and runs through the forest. The lighting is soft, suggesting a slightly overcast day.

Sustainable Procurement of Wood and Paper- based Products: An Introduction

Sustainable procurement is the process by which organizations buy supplies and services taking into consideration the best value for money and the environmental and social aspects that the product/service has over its whole life cycle

(Environmentally and Socially Responsible Procurement Working Group, 2007)¹

Beyond the immediate and obvious consequences of their purchases, concerned consumers, retailers, investors, communities and other groups want to know how their buying decisions impact the environment and forest-based communities. They also want to know whether the products they buy are produced sustainably. Will buying them today adversely affect the availability of similar products or environmental values for future generations?

Questions surrounding sustainable procurement have led organizations that buy wood and paper-based products to consider factors beyond the traditional attributes of price, service, quality and availability when making purchasing decisions. The environmental and social aspects of wood and pulp and paper products are becoming part of the purchasing equation.

Numerous groups have developed tools, initiatives, projects and labels to promote and aid sustainable procurement of wood and paper-based products. However, organizations wanting to implement such a policy may not have the resources needed to fully sort through the myriad choices available.

The **World Business Council for Sustainable Development** and the **World Resources Institute** have partnered to publish *Sustainable Procurement of Wood and Paper-based Products: An Introduction* to assist purchasing managers by:

- Identifying the central issues around sustainable procurement of wood and paper-based products;
- Providing a general overview on these issues;

- Providing an overview of some of the tools, initiatives, programs and labels, and other resources that have emerged to assist sustainable procurement.

This guide is a companion to the report *Sustainable Procurement of Wood and Paper-based Products: Guide and Resource Kit*. Information about how to obtain a copy of the complete guide can be found at the end of this introductory document.

Compared to other materials, wood and paper-based goods produced in a sustainable manner can be a wise choice because:

- They come from a renewable resource – trees, the product of sunlight, soil, nutrients and water.
- They capture carbon – through photosynthesis, trees take carbon dioxide out of the atmosphere and replace it with oxygen, mitigating greenhouse gas emissions. In sustainably managed forests the carbon released through harvesting is offset by that stored through regeneration and regrowth, making these forests carbon neutral.
- They store carbon over the long term – solid wood, panel and other wood and paper-based products can effectively store carbon for decades or even centuries.
- They are recyclable – they can be reused, or converted into other products, extending their useful life and adding to the available resource pool of wood fiber.

This guide is for business executives who are significant users and purchasers of pulp, paper, packaging, timber and wood-based products, and that do not have “in house” forests and forestry expertise.

Many tools, projects, initiatives and labels have emerged over the past few years to aid sustainable procurement; those new to the subject may find this proliferation of advice confusing. This guide highlights and characterizes, for the first time, a selected number of resources, and it provides a comprehensive overview of the issues central to sustainable procurement.

The growing demand for sustainably produced wood and paper-based goods can lead to improved forest management.

¹ - Environmentally and Socially Responsible Procurement Working Group. 2007. *What Is Sustainable Procurement?* Online at www.sustainableprocurement.net/home2.html (1/23/07).

The guide is designed as:

- An information tool – to help customers develop their own sustainable procurement policies for wood and paper-based products;
- A decision support tool – by providing simple and clear information on existing approaches to the procurement of wood and paper-based products from legal and sustainable sources, as well as providing additional references and resource materials.

The information is organized around ten key issues, posed as “essential questions” that sustainable procurement might address:

10 key issues related to sustainable procurement of wood and paper-based products

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?

1. Origin Where do the products come from?

Wood and paper-based products often come from developing regions and remote locations. Knowing the geographical origin of the products, and the type of manufacturing processes that produced them, will help the procurement manager make an initial assessment of several key issues:

- Credibility of product information;
- Legality of sourcing;
- Use of sustainable forestry practices;
- Protection of special places;
- Consideration of workers and local communities.

A supply chain (conversion of raw material to finished product) for wood and paper products can be short, long, simple or complex. The raw

materials in a finished product may come from a variety of sources, including temperate, boreal and tropical tree species. The manufacturing process for paper products may source logs, wood chips and recycled pulp from numerous suppliers and locations, making these supply chains even more complicated.

To help trace the origin of raw materials, buyers can request that suppliers provide harvesting permits, bills of lading and other pertinent documentation. Contracts can be used to trace products from their origin in the forests and throughout the manufacturing process to ensure compliance with laws. It may be appropriate to ask suppliers to implement special management systems and controls, such as chain-of-custody, to track the product origin throughout the supply chain.

2. Information accuracy Is information about the products credible?

Some regions are at risk for poor forest management or weak governance so companies sourcing wood products from those areas may consider applying a greater degree of scrutiny and due diligence, such as with a certified chain-of-custody. Business, environmental groups, and labor and trade organizations generally agree that an independent, third-party verification of forest operations to an acceptable standard is desirable.

At the forest management level, voluntary programs enable producers to be certified against standards for sustainable forest management. The

two major global programs are the Forest Stewardship Council (FSC) and the Programme for Endorsement of Forest Certification Schemes (PEFC).

In the manufacturing and distribution process, self-reporting is a common source of information. Having environmental and social management systems in place typically generates acceptable levels of information. These systems are designed to achieve continual performance improvement by setting and monitoring goals and targets. They may even include some degree of third-party verification.

3. Legality Have the products been legally produced?

Illegal logging has risen to the top of the international forestry agenda over the past five to ten years. It is acknowledged as a major problem by governments, the forest industry, labor and trade organizations, and non-governmental groups. Illegal logging can result in loss of government revenues, unfair competition, increased poverty and destruction of important ecosystems. The issue is complicated by the fact that there is no universally accepted definition of illegal logging. Strictly speaking, illegality is anything that occurs in violation of a legal framework. Buyers should be concerned about practices such as: wood harvested without proper

permission or permits, including from protected areas; logging of protected species; violation of human rights; and corruption, including fraud, in documents used in transport and trade. There are different ways to address these specific issues.

Legal, political, social and economic issues from the harvesting of raw materials, the manufacturing process, and the trading of products are often included in discussions of illegal logging. To reduce the risk of purchasing illegally harvested and produced wood-based products, procurement managers should identify regions of higher risk and develop appropriate controls.

The incidence of illegally produced wood is usually estimated at 8-10% of global wood production.

4. Sustainability

Have forests been sustainably managed?

In looking at forests, there are two major concerns: are forests being sustainably managed, and are they subject to deforestation or conversion?

Sustainable forest management

Sustainable forest management integrates economic, social and environmental aspects of management into an appropriate balance that meets the needs of today's society without jeopardizing future generations. The economic aspect is a suitable mix of wood products and non-wood products (plants, animals, etc.), that does not diminish the productive capacity of the forest. Social aspects include respect for labor and indigenous rights, the health and safety of forest workers, sharing of economic benefits, and protection of sites of spiritual or historic value. Environmental aspects can include soil protection, biodiversity, maintenance of air and water quality, and aesthetics. The appropriate balance of these aspects will vary among regions and contexts.

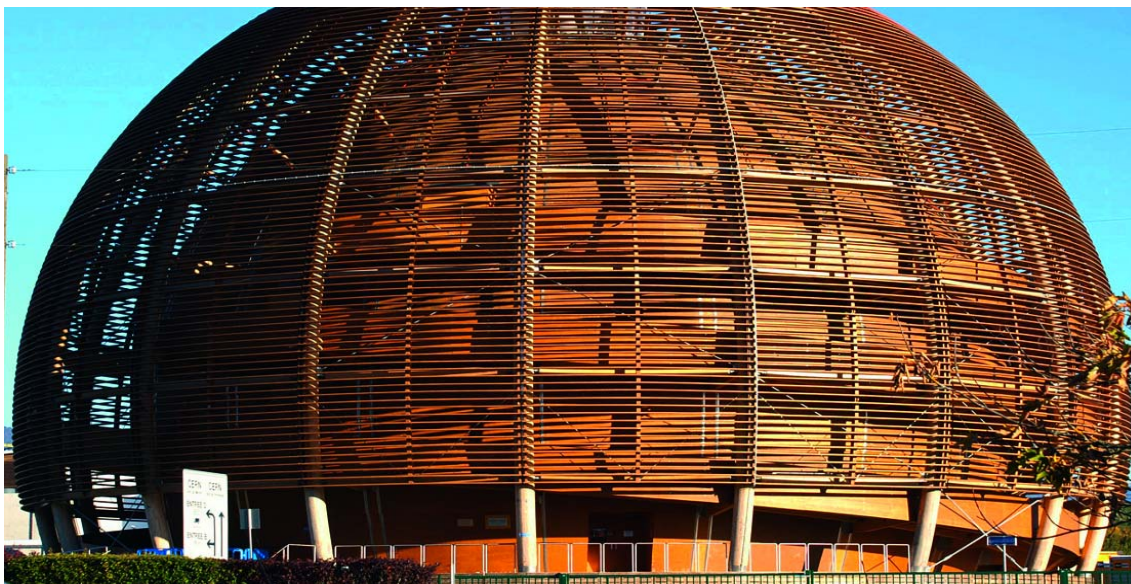
The voluntary certification systems mentioned before have developed standards that spell out the details of sustainable forest management at either national or sub-national levels. These standards have many similarities, but they also have differences that are considered important by their respective 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.

Forest land use change and forest conversion

Land-use change (deforestation) happens when forest land is converted to another use such as agriculture, mining, settlements, transportation infrastructure, etc. Deforestation is largely a historical phenomenon in developed countries (with the exception of urban sprawl). In some places forests are even being re-established on abandoned agricultural lands. Deforestation is an ongoing process in many developing regions. Logging concessions are often converted to plantations of other crops, such as oil palm in Asia or sugar beets in the Amazon. Industrial logging can sometimes cause deforestation inadvertently, when roads established for timber transportation open up the land for human encroachment, leading to deforestation or severe degradation.

Forest conversion occurs when a natural forest is transformed into a highly controlled, intensively managed forest, often with the goal of maximizing wood production. It can involve introduced tree species and changes in the hydrological and nutrient regime. Intensively managed forests often produce more fiber per unit of land, but can have reduced ecosystem values, including biodiversity impacts. These impacts can be mitigated through sustainable forest management.

Both deforestation and forest conversion can either be legal and planned, or illegal and spontaneous. In either case it can be controversial, and the procurement manager who accepts wood from either must be prepared to explain the basis for this policy.



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

In the forest landscape there are areas with unique qualities that deserve special attention or protection; these are called “special places”. The qualities that make a place special differ widely, e.g., it can be the home of a rare or threatened species or type of forest. It can be critical in regulating water flow or preventing erosion. It may contain spiritual, recreational or other important values. Some qualities can be globally significant while others are locally important. Special places can exist without having been discovered, and far from all of them are legally protected. A realization that special places are difficult or even impossible to re-create has led to increased interest in this issue.

While stakeholders generally agree on the above, there is no consensus on what constitutes a special

place, or the degree to which a landowner should be held responsible for protecting such sites. This is a complex, ongoing, and at times contentious discussion in which differences of opinion among public authorities, landowners, indigenous peoples, and environmental groups can be significant.

The status of wood from legally protected areas is relatively straightforward, but setting a policy for areas without legal protection status can be complex and contentious. There may be marketplace pressures to discourage sourcing from certain areas, as environmental groups seek to keep unprotected “candidate” special places from being logged until their special qualities have been investigated and official protection has been properly considered.

6. Climate change Have climate issues been addressed?

Forests play a dual role in climate change by both mitigating and contributing to it.

As trees grow, forests mitigate climate change by removing carbon from the atmosphere (carbon sequestration) and then storing it as biomass. Wood products also serve to store carbon throughout their lifetime and the amount of carbon stored in products is increasing by about 540 million tons of CO₂ per year (NCASI 2007).² Sustainably managed forests can also mitigate climate change by providing biomass energy that can replace fossil-based fuels. Biomass energy is fundamentally different from fossil fuel energy because it recycles carbon to the atmosphere, whereas fossil fuels introduce new carbon. The forest industry is energy intensive, pulp and paper production in particular,

but meets much of its energy needs with biomass. As in other industries, the forest industry still relies heavily on fossil fuels for transportation.

Forests contribute to net carbon emissions when they are logged, converted or burned at a faster rate than they grow back. An estimated 24% of global carbon dioxide emissions are attributable to land-use change and forestry (Baumert et al 2005).³ A sustainably managed forest landscape can be considered relatively carbon neutral if logging is balanced with re-growth.

Climate change can stress forests through higher mean annual temperatures, altered precipitation patterns, and more frequent and extreme weather events.

Forests play a dual role in climate change. They mitigate it through uptake of carbon and when biomass energy from sustainably managed forests replaces fossil fuels. Wood products also store carbon throughout their lifetime. Forests contribute to net carbon emissions when they are logged, destroyed or burned at a faster rate than they can grow back.



2 – National Council for Air and Stream Improvement, Inc (NCASI). 2007. *The Greenhouse Gas and Carbon Profile of the Global Forest Products Industry*. NCASI Special Report 07-02. Research Triangle Park, NC: NCASI. Online at www.ncasi.org/publications/detail.aspx?id=2952 (8/27/07).

3 – Baumert, K., T. Herzog, and J. Pershing. 2005. *Navigating the Numbers: Greenhouse Gas Data and International Climate Policy*. World Resources Institute. Online at http://pdf.wri.org/navigating_numbers.pdf (8/21/07).

Source reduction goes beyond recycling by attempting to reduce negative environmental impacts throughout the entire life cycle of the product. Design, manufacturing, usage, sales and final disposal are all part of source reduction.

A constant flow of virgin fiber into the fiber network is needed because wood fibers cannot be recycled indefinitely. Depending on the origin of the virgin fiber and the type of products, fiber is typically worn out after five to seven cycles.

7. Environmental protection

Have appropriate environmental controls been applied?

Different types of pollution can occur at various points along the wood products supply chain. These include air emissions, solid waste, water emissions and noise. Pulp bleaching is a potential source of pollution that has generated interest with several stakeholders. The majority of paper manufacturers have phased out the use of elemental chlorine as a bleaching agent, although it is still used in some areas.

The law is the formal reference for acceptable levels of emissions in a country. Some countries

are more stringent in their regulation and enforcement of emissions than others. A sustainable procurement policy may need to meet and exceed legal requirements in some cases. Ways to reduce pollution can include:

- Increased equipment and process efficiency;
- Increased recycling of waste material;
- Improved chemical recovery;
- Implementation of an environmental management system targeting continual process improvement.

8. Recycled fiber

Has recycled fiber been used appropriately?

Recycling is an important aspect of the wood-based products supply chain. The paper industry is largely based on the utilization of by-products. Low market-value trees, smaller tree sections and wood chips from saw-mills are used for wood pulp, while other residues such as bark and sawdust are used for energy. Using recycled fiber, in the appropriate grades, can reduce the increasing demand for fiber from forests and reduce methane emissions from paper sent to landfills. The use of recycled fiber has become a significant complement to virgin fiber, but a constant input of virgin fiber into the process will always be necessary because recycled wood fibers are typically worn out after five to seven cycles, depending on the type of fiber and products generated.

Recycling also has other limits. With proposer environmental controls, burning paper to replace oil may be preferable in rural areas where a large amount of energy for transportation is needed to collect and deliver the fiber to a mill that can accommodate

recycled fiber. Non-wood fibers, such as hemp, straw and bagasse, can also be used for papermaking. The challenges in large-scale utilization of alternative fibers are significant, and include:

- Inconsistent availability due to seasonality and transportation logistics;
- Potentially negative environmental side effects of large scale, intensively managed agricultural crops;
- Technical performance requirements for paper.

The use of non-wood fibers or other agricultural residues can provide benefits to some rural economies and reduce the demand for unsustainably produced wood fibers.

Sustainable procurement can incorporate recycling in a number of ways, including using recycled content in paper and supporting measures to help the collection of recycled fibers in sufficient amounts to meet demand.

9. Other resources

Have other resources been used appropriately?

Wood and energy remain the most expensive inputs to pulp and paper manufacturing. Thus, reducing energy consumption and improving efficiency in the use of other raw materials are important industry goals. Source reduction of raw materials is a concept that goes beyond

recycling by attempting to reduce environmental impacts throughout a product's life cycle. Benefits include decreased use of natural resources, reduced pollution, and lower costs due to reduced use of materials, packaging and related disposal costs.

10. Local communities and indigenous peoples

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

Protecting the rights of indigenous peoples and workers in the forest and in manufacturing facilities is an important part of sustainable procurement. Forest production typically takes place in remote, rural areas where forest companies sometimes assume social burdens and an authority role that would typically be the responsibility of the government in more developed areas. The way that these responsibilities are exercised is very important to forest workers and local and indigenous communities. Compliance with laws and international treaties can sometimes be enough to address social concerns.

Logging and processing operations are potentially dangerous, and proper equipment and training are essential. In areas where little industrial activity has

taken place, the compatibility of operations with local property rights and the rights (labor and human) of local peoples, including indigenous groups, can also be a concern.

Sustainable operations should consult local communities and indigenous groups before undertaking initiatives likely to impact their lands and resources, and community members should be allowed to participate meaningfully in forest management decisions affecting these rights. Capacity building, and recognition and support of cultural identity in local communities, are also important. Areas of special concern include those associated with armed conflict and areas known to have flagrant avoidance and violations of workers' and human rights.

Forests are home to an estimated 800 million people around the world. An estimated 13 million people were formally employed in the forestry sector worldwide in the year 2000. (FAO 2002)*

A "Guide to the Guides"

Various organizations have developed initiatives to support the sustainable procurement of wood and paper-based products. They differ in geographic applicability, product scope, level of detail, and the constituency backing them. Thirty-five initiatives have been analyzed and summarized in the following two tables grouped into 3 categories:

- Solid wood products;
- Paper products;
- Wood-based products in general.

Within each category the initiatives are further defined by their focus in the supply chain and by their geographic relevance. Each initiative's primary issues of concern are noted, as are the initiative's tools and contact information.

In reviewing these, a procurement manager should consider the origin, focus and extent to which each fits with the corporate procurement strategy and supply chain – from forest production and manufacturing through retail and trade.

This introduction's associated publication, *Sustainable Procurement of Wood and Paper-based Products: Guide and Resource Kit*, further helps procurement managers identify potential resources by providing more detailed information on each of these initiatives, as well as an extensive glossary, list of acronyms, references and additional resources.

Ordering publications

Organizations wanting additional copies of this Introduction publication, or to get copies of the complete *Sustainable Procurement of Wood and Paper-based Products: Guide and Resource Kit* can order either online at: www.wbcsd.org

Additional information about sustainable procurement of wood and paper-based products can be found at www.sustainableforestprods.org. This is also where future revisions and updates of the *Guide and Resource Kit* will be located.

Interested parties can also download copies of both the *Introduction* and the *Guide and Resource Kit* from these websites.

Table 1

Summary list of tools and initiatives exclusively for solid or pulp

SCOPE	Focus in supply chain				Geographical areas of interest	Main issues of concern						
	Forest production	Processing/Manufacturing	Retail/Use	Trade		Traceability	Monitoring and verification	Legality	SFM	Special places	Forest conversion	Social issues
SOLID WOOD												
German Government Procurement Policy	✓			✓	Global	✓	✓	✓	✓			
Greenpeace's Responsible Procurement Policy	✓		✓	✓	China with global implications	✓	✓	✓	✓	✓	✓	✓
The Green Building Initiative's Green Globes™ Rating System	✓		✓		US	✓			✓			
The Leadership in Energy and Environmental Design (LEED)® Green Building Rating System	✓		✓		US	✓			✓			
Timber Trade Action Plan	✓		✓	✓	Global	✓	✓	✓				
Timber Trade Federation Responsible Purchasing Policy	✓	✓		✓	Global	✓	✓	✓	✓	✓	✓	✓
Tropical Forest Trust's <i>Good Wood, Good Business</i> Guide.	✓		✓	✓	Global/Tropics	✓	✓	✓	✓	✓	✓	✓
Wood. For Good Campaign	✓		✓	✓					✓			

and paper product

				Brief characterization	Contact details
Pollution	Recycled content	Climate	Source reduction		

Table of Procurement Policies

				Procurement policy for wood and wood products only from verifiably legal and SFM.	German Federal Ministry of Consumer Protection, Food and Agriculture Phone: +49 (030) 200 60 www.bmelv.de
	✓			Provides advice and assistance to solid-wood retailers devising and implementing a responsible procurement policy using Greenpeace's Timber Standard. The Timber Standard is a benchmark and it outlines a step-wise transition towards buying products that are sustainable. Sustainable products are defined as FSC-certified and/or are made of 100% recycled materials.	Greenpeace China Phone: +86 10 6554 6931 E-mail: greenpeace.china@cn.greenpeace.org www.greenpeace.org/china/en/
✓	✓		✓	Rating standards for commercial buildings.	The Green Building Initiative Phone: +1 877 424 4241 E-mail: info@thegbi.org www.thegbi.org
✓	✓		✓	Rating standards for various types of buildings.	Green Building Council Phone: +1 800 795 1747 or +1 202 828 5110 E-mail: info@usgbc.org www.usgbc.org
				A project aimed to reduce trade in illegal timber by helping members of European timber trade federations to work towards legality verification of their timber and wood products, and to implement robust chain of custody systems. TTAP is a private-sector initiative created by a number of European timber trade federations, and it is being implemented by the Tropical Forest Trust. TTAP is funded by the European Commission and its European partner timber trade federations.	Tropical Forest Trust Phone: +41 (0) 22 367 9442 E-mail: ttap@tropicalforesttrust.com www.timbertradeactionplan.info/ www.tropicalforesttrust.com/ttap.php
				Management system compliant with UK central government requirements for legality and sustainability.	Timber Trade Federation Phone: +44 (0) 20 78 39 18 91 E-mail: ttf@ttf.co.uk www.ttf.co.uk
				Practical guidance to develop and implement sustainable procurement.	Tropical Forest Trust Phone: +41 (0)22 367 94 40 or +44 (0)1329 83 38 88 E-mail: tft@tropicalforesttrust.com www.tropicalforesttrust.com
✓	✓	✓		Brochures, fact sheets, education materials.	wood. for good Phone: +44 (0) 800 279 0016 E-Mail: contact@woodforgood.com www.woodforgood.com

Table 1

Summary list of tools and initiatives exclusively for solid or pulp

SCOPE	Focus in supply chain				Geographical areas of interest	Main issues of concern						
	Forest production	Processing/Manufacturing	Retail/Use	Trade		Traceability	Monitoring and verification	Legality	SFM	Special places	Forest conversion	Social issues
PULP AND PAPER-BASED												
CEPI Carbon Footprint Framework	✓	✓	✓	✓	Europe	✓	✓		✓		✓	
Environmental Paper Assessment Tool ® V.2.0	✓	✓	✓		Global but primarily in the US and Canada	✓	✓	✓	✓	✓		✓
Environmental Paper Network	✓	✓	✓	✓	Global	✓	✓	✓	✓	✓	✓	✓
New Zealand Government Paper Buyers guidance	✓			✓	New Zealand with global implications			✓	✓			
Paper Calculator	✓	✓			North America (Canada and the United States)							
Paper Profile	✓	✓			Europe/Global	✓	✓		✓			
World Wildlife Fund Guide to buying paper	✓	✓	✓	✓	Global	✓	✓	✓	✓	✓	✓	
World Wildlife Fund Paper Scorecard	✓	✓		✓	Global	✓	✓	✓	✓	✓	✓	✓
World Wildlife Fund Tissue Scoring	✓	✓	✓		Europe	✓	✓	✓	✓	✓	✓	✓

and paper product

				Brief characterization	Contact details
Pollution	Recycled content	Climate	Source reduction		

✓	✓	✓	✓	Framework provides a comprehensive structure, overview and guidance for individual CEPI member companies to estimate—and communicate with stakeholders—the net greenhouse gas emissions associated with their products (carbon footprint). Evaluation of carbon footprint is based on 10 elements throughout the products' supply chain.	Confederation of European Paper Industries Phone: +32 2 627 4928 E-mail: mail@cepi.org www.cepi.org
✓	✓	✓	✓	Comprehensive, online decision-support tool to facilitate direct dialogue and collaboration between producers and buyers on various issues; allows users to evaluate trade-offs in purchasing decisions.	Metafore Phone: +1 503 224 2205 E-mail: info@metafore.org www.epat.org
✓	✓	✓	✓	A network of organizations providing information and guidance on various aspects of paper. Information and guidance is based on a common framework (common vision) for environmental and social sustainability in the production and consumption of pulp and paper products. The Network maintains and promotes various Internet-based applications where its environmental and social goals are evaluated, and where guidance and practical tools for paper purchasers are provided.	Environmental Paper Network Phone: +1 828 251 8558 E-mail: info@environmentalpaper.org www.environmentalpaper.org
✓	✓			Provides general overview of key issues and practical guidance for New Zealand paper buyers in selecting their products.	New Zealand Ministry for the Environment E-mail: govt3@mfe.govt.nz www.mfe.govt.nz
✓	✓	✓	✓	Online tool to quantify and compare the environmental impacts of 13 paper choices based on the use of recycled content and source reduction; calculations are based on the analysis of the Paper Task Force, which examines environmental impacts and implications through the entire life cycle of paper.	Environmental Defense Fund Phone: +1 212 505 2100 www.papercalculator.org
✓	✓		✓	Voluntary system to provide information to the consumer about various environmental parameters of specific paper products.	Finnish Paper Engineers' Association Phone: +358 (9) 132 6688 E-mail: info@papereng.fi www.papereng.fi
✓	✓	✓	✓	Companion to WWF Paper Scorecard. Provides guidance on various issues and showcases examples of companies taking action on issues covered.	WWF International Phone: +41 (0)22 364 91 11 www.panda.org/paper/toolbox
✓	✓	✓		Scoring system for paper.	WWF International Phone: +41 (0)22 364 91 11 www.panda.org/paper/toolbox
✓	✓		✓	Rating system to assess tissue paper sourcing.	WWF International Phone: +41 (0) 22 364 91 11 www.wwfno.panda.org

Table 2

Summary list of tools and initiatives for all wood-based products

SCOPE	Focus in supply chain				Geographical areas of interest	Main issues of concern						
	Forest production	Processing/Manufacturing	Retail/Use	Trade		Traceability	Monitoring and verification	Legality	SFM	Special places	Forest conversion	Social issues
A buyers' guide to Canada's sustainable forest products	✓	✓	✓	✓	Canada with global implications	✓	✓	✓	✓	✓	✓	✓
CEPI Certification Matrix	✓				Global		✓	✓	✓			
CEPI Legal Logging Code of Conduct	✓			✓	Europe	✓	✓	✓				
Danish Government Procurement Policy for Tropical Forests	✓	✓		✓		✓	✓	✓	✓			✓
European Community Green Purchasing Policy	✓	✓		✓	Global	✓	✓	✓	✓			
Forest Certification Assessment Guide	✓				Global	✓	✓	✓	✓	✓	✓	✓
Forest Industry Carbon Assessment Tool	✓	✓	✓		Global	✓			✓		✓	
French Policy on Public Procurement of Timber and Wood Products	✓			✓	Global	✓	✓	✓	✓			
FSC's Controlled Wood Standard	✓	✓		✓	Global	✓	✓	✓		✓	✓	✓

				Brief characterization	Contact details
Pollution	Recycled content	Climate	Source reduction		
✓	✓	✓	✓	Uses the WRI/WBCSD 10 key questions framework, to provide buyers with information to reassure them about the social and environmental qualities of Canada's forest products. Includes sample forest products procurement/financing policy, environmental performance data of FPAC members, as well as additional resources including a glossary.	Forest Products Association of Canada Phone: +1 613 563 1441 E-mail: Ottawa@fpac.ca www.fpac.ca
				Online comparison of certification systems based on compatibility with ISO standards, legality and conformance with internationally recognized SFM principles.	Confederation of European Paper Industries (CEPI) Phone: +32 (2) 627 49 27 E-mail: mail@cepi.org www.cepi.org
				States CEPI member companies' commitments to address illegal logging.	Confederation of European Paper Industries (CEPI) Phone: +32 (2) 627 49 27 E-mail: mail@cepi.org www.cepi.org
				Guidelines for purchasing of tropical timber. Guidelines are currently under review.	Danish Ministry of the Environment Phone: +45 (72) 54 20 00 E-mail: sns@sns.dk www.sns.dk
✓	✓		✓	Policy to promote public green procurement, increase similarities among procurement criteria of EU member states, and provide guidance and advice. Priority products include paper and furniture.	European Environment Agency Phone: +45 33 36 7100 ec.europa.eu/environment/gpp/index_en.htm
✓				Framework for the evaluation of certification systems to assess compliance with World Bank and WWF policies.	World Bank / WWF International Phone: +41 (0) 22 364 91 11 or +1 202 473 10 00 www.forest-alliance.org
	✓	✓		An online, comprehensive, assessment tool to estimate direct and indirect (Scope 1, 2, and 3) GHG emissions for the forest products industry. FICAT incorporates elements of the WRI/WBCSD GHG Protocol, it is structured around CEPI's Carbon Footprint Framework, and it uses data from the Intergovernmental Panel on Climate Change (IPCC). The tool can be also used to educate users about the complexities associated with estimating GHG emissions of forest products.	National Council for Air and Stream Improvement, Inc and the International Finance Corporation Phone: +1 919 941 6400 www.FICATModel.org
	✓			National forest products procurement policy; required for central government procurement officials; recommended to local authorities.	Ministère de l'Écologie, de l'Énergie du Développement durable et de l'Aménagement du territoire Phone: +33 (0) 1 40 81 83 32 E-mail: remy.risser@developpement-durable.gouv.fr www.ecoresponsabilite.environnement.gouv.fr
				Within the FSC system, a standard to avoid trading of illegal and environmentally and socially damaging wood.	Forest Stewardship Council Phone: +49 (228) 367 66 26 E-mail: fsc@fsc.org www.fsc.org

Table 2

Summary list of tools and initiatives for all wood-based products

SCOPE	Focus in supply chain				Geographical areas of interest	Main issues of concern						
	Forest production	Processing/Manufacturing	Retail/Use	Trade		Traceability	Monitoring and verification	Legality	SFM	Special places	Forest conversion	Social issues
Global Forest and Trade Network	✓	✓	✓	✓	Global	✓	✓	✓	✓	✓	✓	✓
Green Purchasing Network		✓	✓		Japan		✓	✓	✓			
Japanese Government Procurement Policy	✓	✓			Japan/Global	✓		✓	✓			
New Zealand Timber and Wood Products Procurement Policy	✓			✓	Global		✓	✓	✓			
PEFC guide for the avoidance of controversial timber	✓	✓		✓	Global	✓	✓	✓		✓		✓
Public Procurement Policies for Forest Products and Their Impacts	✓			✓	Europe, New Zealand, Japan		✓	✓	✓			✓
Sustainable Forestry Initiative Procurement Objective	✓	✓		✓	US and Canada	✓	✓	✓	✓	✓		✓
Tropical Forest Trust	✓	✓	✓	✓	Global	✓	✓	✓	✓	✓	✓	✓
UK Government Central Point of Expertise on Timber Procurement	✓	✓		✓	Global	✓	✓	✓	✓	✓		✓

				Brief characterization	Contact details
Pollution	Recycled content	Climate	Source reduction		
	✓	✓	✓	Promotes responsible forest management and trade through a step-wise approach toward credible certification.	WWF International Phone : +41 22 364 9111 www.gftn.panda.org
✓	✓	✓	✓	Guidance for green purchasing, including various types of paper products and furniture.	Green Purchasing Network Phone: +81 (3) 3406 5155 E-mail: gpn@net.email.ne.jp www.gpn.jp
✓	✓	✓	✓	Guidelines for verification of legality and sustainability of wood and wood products.	Forestry Agency, Ministry of Agriculture, Forestry and Fisheries of Japan www.maff.go.jp/eindex.html
				Procurement policy for New Zealand government agencies to address illegal logging and support international sustainable forest management.	Forest Policy Coordination Ministry of Agriculture and Forestry Phone: +64 (04) 894 0679 www.maf.govt.nz/forestry/twpp/index.htm
				CoC requirements to prevent trading of timber harvested illegally.	PEFC Council Phone: +41 22 799 45 40 E-mail: info@pefc.org www.pefc.org
				Synthesis and comparative review of public timber procurement policies around the world.	Ardot Phone: +358 (0) 9 44 88 61 E-mail: ardot@ardot.fi www.ardot.fi
		✓		Purchasing requirements for wood and fiber under SFI certification standard.	Sustainable Forestry Initiative Phone: +1 703 875 9500 www.sfiprogram.org
	✓	✓	✓	Helps link business to responsibly managed forests. TFT members commit to sourcing from sustainable forests that are credibly certified, or TFT forest projects advancing towards credible forest certification. TFT supports companies to establish wood control systems that ensure no undesirable wood enters into their products.	Tropical Forest Trust Phone: +41 (0) 223 67 9449 E-mail: info@tropicalforesttrust.com www.tropicalforesttrust.org
				Guidance for compliance with UK central government purchasing requirements for sustainability and legality.	ProForest Phone: +44 (0) 1865 243 766 E-mail: cpet@proforest.net www.proforest.net

Glossary

bill of lading

A document establishing the terms of contract between a shipper and a transportation company to move freight from one point to another for a specific charge. (Source: Global Forest and Trade Network (GFTN). *Building a Better Business through Responsible Purchasing: Developing and Implementing a Wood and Paper Purchasing Policy*. WWF, GFTN-North America. 2005.)

biodiversity

Also, biological diversity. The variety of living organisms from all sources including terrestrial, marine and other aquatic ecosystems, as well as the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems. (Source: Convention on Biological Diversity. *Article 2. Use of Terms*. 2007.)

chain-of-custody (CoC)

The systematic tracking of wood-based products from their origin in the forest to their end-use.

carbon sequestration

The different processes through which carbon is removed from the atmosphere and stored in soil, biomass, geological formations and oceans.

environmental management system (EMS)

A set of processes and practices that enables an organization to reduce its environmental impacts and increase operational efficiency. (Source: US Environmental Protection Agency. 2007.)

forest land-use change

Also called deforestation – where forests are being converted from natural forests to other land uses (agriculture, cattle ranching, urbanization, etc.). Such land use change may or may not be legal and can result in forested areas that do not have the prospect of being sustainably managed

forest conversion

When natural forests are converted to highly cultivated forests typically with an increased focus on wood production and decreased environmental benefits.

illegal logging

Logging in violation of an established legal framework.

old growth forests

A forest that has originated through natural succession and maintains significant portions of dead wood and old trees. A multi-layered structure is often

present and the forest may be at climax (mature) stage. (Source: Lund, H.G. *Definitions of Old Growth, Pristine, Climax, Ancient Forests, Degradation, Desertification, Forest Fragmentation, and Similar Terms*. Forest Information Services. 2007.)

protected areas

An area as an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means. (Source: World Conservation Union (IUCN). World Commission on Protected Areas Website at www.iucn.org/themes/wcpa/ (accessed September 2007) 2007.)

special places

For the purpose of this guide, the term special places is used as a generic term to mean areas in the forest landscape that have unique qualities and need special attention and treatment, including sensitive ecosystems.

supply chain

The different steps (from tree harvesting to product distribution) through which wood and paper-based products go: through from harvest to an end product.

threatened species

Threatened species is a group of three categories: critically endangered species, endangered species, and vulnerable species. Endangered species are considered to be facing a very high risk of extinction in the wild while vulnerable species are considered to be facing a high risk of extinction in the wild. (Source: World Conservation Union (IUCN). *Glossary of Biodiversity Terms*. IUCN/WCMC. 2007.)

traceability

The ability to track wood between two subsequent points of the chain-of-custody.

unwanted sources

In addition to illegal logging, a number of controversial sources of wood including: protected areas or forests that have been proposed for national parks but have not yet been formally protected; forests deemed to be special places; forests where there are serious tenure disputes, particularly where these involve the failure to respect the customary rights of indigenous or local people; forests that are inappropriately converted to other land uses. (Source: Nussbaum, R., and M. Simula. *The Forest Certification Handbook*. 2005.)

About

WBCSD

The World Business Council for Sustainable Development (WBCSD) brings together some 200 international companies in a shared commitment to sustainable development through economic growth, ecological balance and social progress. Our members are drawn from more than 30 countries and 20 major industrial sectors. We also benefit from a global network of about 60 national and regional business councils and partner organizations.

Our mission is to provide business leadership as a catalyst for change toward sustainable development, and to support the business license to operate, innovate and grow in a world increasingly shaped by sustainable development issues.

Our objectives include:

Business Leadership – to be a leading business advocate on sustainable development;

Policy Development – to help develop policies that create framework conditions for the business contribution to sustainable development;

The Business Case – to develop and promote the business case for sustainable development;

Best Practice – to demonstrate the business contribution to sustainable development and share best practices among members;

Global Outreach – to contribute to a sustainable future for developing nations and nations in transition.

www.wbcsd.org

World Resources Institute

The World Resources Institute (WRI) is an environmental think tank that goes beyond research to find practical ways to protect the earth and improve people's lives.

Our mission is to move human society to live in ways that protect Earth's environment and its capacity to provide for the needs and aspirations of current and future generations.

Because people are inspired by ideas, empowered by knowledge, and moved to change by greater understanding, WRI provides—and helps other institutions provide—objective information and practical proposals for policy and institutional change that will foster environmentally sound, socially equitable development.

WRI organizes its work around four key goals:

People and Ecosystems – Reverse rapid degradation of ecosystems and assure their capacity to provide humans with needed goods and services.

Access – Guarantee public access to information and decisions regarding natural resources and the environment

Climate Protection – Protect the global climate system from further harm due to emissions of greenhouse gases and help humanity and the natural world adapt to unavoidable climate change.

Markets and Enterprise – Harness markets and enterprise to expand economic opportunity and protect the environment.

www.wri.org and www.earthtrends.wri.org

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