Toolkit for Responsible Paper Use

Contents

Paper Impacts and Solutions	2
Actions Steps and Precedents	4
Paper-Use Guidelines	6
1 Page Paper Policy Template	7

Addendums

FSC – SFI Comparison	8
Recycled Fiber Benefits	10
Environmental Leadership Survey – Suppliers	11

Paper Impacts and Solutions

Introduction
Book publishing is a wonderful endeavor which advances literacy, inspires creativity, and contributes to cultural evolution. Despite the valuable contribution of book publishing, as with many industries, the current book paper production and consumption cycle can be improved in a manner which benefits the common good. Page one outlines the justification for industry innovation and page two provides an introduction to best practices as it relates to paper choice.

Global Warming
The paper industry emits the fourth-highest level of carbon dioxide among manufacturers, according to the Department of Energy. Added to this, the printing and writing sector (of which books are a part of) uses about 95% virgin fiber. This is a big issue because this demand for virgin fiber contributes to deforestation and doesn't help to keep paper out of landfills….which is key as the facts illustrate below:

- The Food and Agriculture Organization (FAO) estimates that deforestation accounts for 25 percent of the annual emissions of carbon caused by human activity. Additionally, researchers at Ohio State University in 2005 found that the carbon content of regrown forests - some of which had been in recovery for 70 years-was just one half the amount stored in nearby forest stands that had never been cut—**the less pressure on forests, the better.**

- Paper comprises nearly 40% of the material in landfills and the decomposition of paper produces methane—**a greenhouse gas with 21 times the heat trapping power of carbon dioxide.**

- So….specifying postconsumer recycled fiber results in demand for recovered paper—keeping it out of landfills. Postconsumer recycled fiber also requires 30-40% less energy in it's lifecycle and conserves 2,000 – 3,200 pounds of carbon dioxide for each ton of virgin fiber that it replaces

Endangered Forest Impacts

It is estimated that in the past three years, 3 to 4 million tons of varying grades of book paper were shipped to U.S. book publishers[1]. This required the consumption of 60-90 million trees[2]. The origin of these trees is a cause for concern as many are sourced from Endangered Forest regions and in ways that are negatively impacting local communities. In the **Southeastern U.S.,** book paper is surprisingly one of the top ten paper products produced and represents 6-10% of all regional paper production[3]. In the Southeast, the paper industry is currently logging an estimated 6 million acres of forests each year—with many native forests converted to plantations (**see photo above**) that support 90% fewer species. One of North America's other major paper sourcing regions is the Canadian Boreal. The **Boreal Forest** is a nesting ground for nearly 40% of North American bird species, plays a particularly vital role in mitigating the impacts of climate change, and stores between 7 and 11% of the world's terrestrial biospheric carbon[4]. It is estimated that 2.5 million acres of forest are cut each year and 65% of trees cut in the Boreal are harvested specifically to make paper—much of it consumed by publishers (news, book, magazine, catalog) in the U.S. The issues in North America are also true in Indonesia and South America—two large and expanding pulp and paper producing regions.

[1] Data from Pulp and Paper Factbook 2001-2004
[2] Based on calculations provided by Environmental Defense, 2004
[3] Compiled from data in the Lockwood Post Directory, 2004 [as identified by the Dogwood Alliance]
[4] "Boreal in the Balance: A Status Report", January 2005: Canadian Boreal Initiative

Social Impacts:

Individuals from both indigenous and rural communities represent the faces of the forest and their way of life is being altered due in part to ever-increasing market demands for paper and the associated short-term oriented forestry practices of many of the largest paper manufacturers. In the Southeast, biodiverse forests are rapidly being converted into pine plantations for optimal pulp yield and are intensively managed with chemical herbicides and fertilizers. The use of chemical fertilizers on tree plantations in the South exceeds the sum of all the fertilizers used on tree plantations in the rest of the world[5] and has been linked to adverse health impacts for local community members. Many indigenous communities are also being negatively impacted by the paper production/consumption cycle. Today there are about 500 indigenous communities within the Boreal forest, many of them beyond the reach of roads and accessible only by air or water. Some communities, including Grassy Narrows in Ontario and the Innu in Quebec, and are losing traditional-use lands to paper companies that are not integrating their conservation wishes into forestry plans. **[photo from youth blockade in Ontario]**

Paper Choice: Stewardship in Action

Printers seeking to improve their social impacts and eliminate their use of Endangered Forest fiber are adhering to the precautionary principle and maximizing the use of recycled and FSC certified fiber.
Countless corporations in varying sectors [including nearly 140 U.S. book publishers] have made commitments and changes in paper choice to maximize their use of recycled and/or FSC certified paper.

The Benefits of Recycled Fiber

Approximately half of all paper produced is collected in the U.S. This is a good rate and can improve significantly. Using recycled fiber (postconsumer and deinked preconsumer) ensures that the paper comes from old paper instead of new trees. This process supports recycling markets, preserves landfills, saves
natural resources and reduces the pressure on Endangered Forests. According to the Paper Calculator, each ton [avg: 1,300 books] of recycled paper that replaces a ton of virgin freesheet paper saves the equivalent of:

- 2,108 pounds of greenhouse gases
- 8,750 gallons of water
- 24 mature trees

Note: *The EPA and Environmental Paper Network's minimum suggested guidelines for recycled fiber are 30% postconsumer recycled for uncoated paper and 10% postconsumer for coated papers*

Forest Certification – Eliminating Risk and Supporting the Best Practice

There are several different forest management systems and most have shown continual improvement. The Forest Stewardship Council (FSC) certification system is the only system that is endorsed by the Environmental Paper Network, World Wildlife Fund, ForestEthics, Natural Resources Defense Council, and hundreds of other environmental organizations. The rationale for the strong support for FSC is related to the fact that the FSC certification ensures:

- Adequate protections for Endangered and High Conservation Value Forests
- Natural and biodiverse forests were not converted to single-species tree farms after harvest
- The concerns of indigenous and local communities are adequately integrated into forest plans
- Biodiversity and landscape integrity are maintained according to the highest standard

Signs of Change

In the past four years, 24 new book papers with strong environmental attributes have been developed and premiums have dropped from 15-20% to between parity and 5% presently. As publishers continue to take formal and meaningful steps towards using responsible paper, these trends will continue in the right direction.

[5] Dogwood Alliance, 2004

Steps to Environmentally Responsible Book Production

1. Craft an internal paper policy (see templates), following the goals developed by industry counterparts, as stated in the Treatise on Responsible Paper Use. You may also refer to the Paper Guidance for Printers on page 6.

2. Develop a baseline measurement. Determine how much recycled (postconsumer and preconsumer) fiber you use as a percentage of your overall tonnage. The most direct measure looks at total number of pounds or tons of recycled fiber used...not just amount of paper with recycled content.

3. If you are already FSC-certified, you will have to track that fiber usage. For more on becoming an FSC-certified printer and tracking, go to www.fscus.org/certifiers and to understand the steps more fully go to http://www.rainforest-alliance.org/programs/forestry/smartwood/certification/index.html

4. Communicate your environmental policy objectives to your distributors, mills and merchants. Make sure they understand that you expect them to help you meet your goals.

5. Communicate with all of your customers about your environmental objectives and paper policy.

6. Analyze your customer paper preferences and proactively make suggestions for substitutions of environmental papers over virgin sheets whenever possible.

7. Make one of these eco sheets the house sheet and make volume commitments as a strategy for reducing costs and ideally reaching price parity.

8. Make sure that your CSRs are informed and understand the internal commitment. Train them to be proactive in urging eco sheets as substitutes.

9. Use your green initiative to distinguish your operation from other non-environmental printers.

Case Study

Thomson-Shore: A Book Manufacturer Exceeding Expectations
Thomson-Shore was the first book manufacturer to make a public commitment to significantly increasing their use of recycled fiber from 5.7% to 25% within a 3 year period. Within two years of making this commitment, they had replaced over 1,500 tons of virgin fiber with postconsumer recycled fiber and exceeded their 25% goal. They established acceptable prices points, partnered with a paper mill, and committed to use a large volume of high postconsumer recycled paper as one of their default house sheets. Their commitment and willingness to commit significant volume enabled Thomson-Shore to meet their environmental goals economically—without passing any cost increases to their customers. There were minimal cost increases (~1%) that were offset by improving efficiencies at the operational level. Thomson-Shore hopes to continue to expand the success of their initiative and to begin using more recycled papers that are FSC certified as the market develops.

McNaughton & Gunn : going beyond recycled to FSC certified

For years McNaughton & Gunn has had a strong environmental focus. As a result, the company has implemented a number of initiatives in the areas of recycling, reuse and pollution prevention.

The decision to become FSC certified was a natural progression and one that was client driven. More and more publishers are looking for environmentally friendly ways to do business including working with "green" printers.

Partnering with vendors, Millcraft of Michigan and Domtar, Chain-of-Custody Certification was achieved in a relatively short amount of time with a nominal amount of effort. Essentially, inventory controls and tracking procedures have been established to ensure that specified papers have come from well-managed forests.

SmartWood, a sustainable forestry program of the Rainforest Alliance, performed the initial audit, serves as the governing body for logo use on-product and off-product and will perform annual audits in the future.

To announce the certification, tree seedlings were distributed to current clients as well as the entire McNaughton & Gunn team. The trees serve as a visual reminder of McNaughton & Gunn's commitment to sound forest stewardship.

SW-COC-002283
© 1996 Forest Stewardship Council A.C.

R.R. Donnelley: first FSC Chain-of-Custody Certification

The first plants were certified in 2004. "RR Donnelley has a long history of pursuing practices that help us and our customers in our respective sustainability efforts," said John Paloian, President, RR Donnelley Group Publishing and Retail Services. "We were able quickly and easily to obtain the FSC certification due to the strength of our supply chain management practices—especially those related to paper procurement and to paper and product tracking capabilities in our plants. A chain-of-custody certification, like FSC's, is an expansion of those efforts. To continue meeting our customers' needs, we intend to leverage our manufacturing and environmental expertise and pursue other sustainable forestry management certifications around the globe. We seek to provide our customers with the industry's best products and services, and to work with them to protect and improve the environment."

Now all RRD U.S. plants are certified. This decision was in response to large catalog customers like Norm Thompson Outfitters. Also RRD has six certified plants in China and one in Mexico. For more details, go to http://www.rrdonnelley.com/wwwRRD/AboutUs/EHS/ExternalCertifications.asp

Above information sourced from the FSC-US website.

Guidelines for Paper Use (Printers)

The following guidelines and recommendations are designed to serve as a basis for printers as a strategy for converting to book papers with strong environmental attributes.

I Paper-Use Goals and Timelines

Participating printers will make their best efforts to increase the use of postconsumer recycled, and FSC certified fiber such that:

- By 2012 at least 30% of the total annual paper volume measured in tons or pounds (for coated and uncoated) is comprised of recycled fiber (majority postconsumer).
- By 2012, at least 20% of the total annual paper volume (for coated and uncoated) is FSC certified measured in tons or pounds.

II Maximizing Postconsumer Recycled Fiber

Postconsumer recycled fibers are derived from recovered paper and thus are fibers that are ensured not to be directly sourced from ancient or endangered forests. Printers committed to eliminating the use of fiber from old growth and endangered forests in their printed books will set goals and objectives to maximize their use of postconsumer recycled fiber Listed below are standards recommended by the U.S. EPA and the Environmental Paper Network. Printers are encouraged to meet or, ideally, surpass these minimum standards when using recycled papers.

Uncoated Minimum
30% postconsumer recycled

Coated Minimum
10% postconsumer recycled

III Maximizing the Use of FSC (Forest Stewardship Council) Certified Fiber

Currently the FSC certification for virgin fiber is widely accepted as the best practice standard for forest management. Accordingly, printers committed to eliminating the use of paper with fiber from Endangered Forests will set goals and objectives that incorporate the recommended strategies below for sourcing environmentally preferred virgin fiber.

Where available, the paper brand and/or the virgin fiber portion of paper will be FSC certified or consist of fiber that is certified according to the standards set by the Forest Stewardship Council (FSC)

If FSC certified virgin fiber is not available, printers will encourage suppliers to use Chain-of Custody forms to track the source and origin of any virgin fiber, work in partnership to eliminate papers with fiber from Endangered Forests, and set goals for incorporating FSC fiber into paper.

IV Preconsumer Recycled Fiber

Printers interested in advancing the best practices within their industry will set and reach objectives as defined in points I and II above. During the process of reaching these objectives, printers that replace virgin fiber with preconsumer recycled fiber are engaging in a paper-use practice that minimizes pressure on Endangered Forests.

Paper Policy Template

1 page Policy Template

[Company Name] is committed to protecting the environment and to the responsible use of natural resources. As a printer, with paper a core part of our business, we are concerned about the future of the world's remaining Endangered Forests and the environmental impacts of paper production. We are committed to implementing policies that will support the preservation of Endangered Forests globally and advance best practices within the book and paper industries.

Toward these ends, [Company Name], as of [date] hereby establishes the following policy goals:

1. For books printed and bound in our facilities., [Company Name] shall make its best efforts to eliminate the use of papers that may contain fiber from Endangered Forests as soon as possible.
2. By 2012 we will endeavor to increase average annual utilization of recycled fiber, measured in tons, to a 30% level (majority postconsumer).
3. By 2012 we will endeavor to utilize FSC (or equivalent) certified papers, for at least 20% of paper-use.*
4. [Company Name] will communicate these long-term policy goals with current and future merchants or mills by circulating this letter and including relevant language in bid solicitations and contract negotiations.
5. [Company Name] will communicate these goals as a first step in the process of reaching our environmental objectives. We will encourage merchants or mills to explore challenges and find solutions. If vendors are unwilling to engage in the necessary process to meet our product and pricing needs, then we will consider doing business with alternative vendors.
6. Where feasible, we will give purchasing preferences to papers that meet the criteria outlined in goal number two. Additionally, we will give purchasing preference to papers produced without the use of chlorine compounds.
7. [Company Name] will aggressively pursue efforts to minimize paper-use through efforts to maximize efficiencies and reduce waste.
8. As a means of accomplishing our goals [Company Name] will develop a plan of action with clear benchmarks and timelines. We will also track and report our progress towards reaching the stated goals.
9. We will make our best effort to implement policies that are consistent with the Green Press Initiative's Guidelines for Paper Use-Printer Version. (see attached document)

* Note from #3. Currently, the Forest Stewardship Council (FSC) certification is widely accepted as the best practice standard for forest management. At such time that additional certification standards meet the rigorous criteria of the FSC, then [Company Name] will also utilize paper with fiber that is certified by according to these additional standards.

In recognition of the need to preserve natural resources and protect Endangered Forests, we also commit to encourage other printers and suppliers to develop similar strategies and policies.

Signed,

[President, Vice President, or Authorized Employee]
[Printer Name]

Forest Stewardship Council (FSC) Certification

-A Best Practice Standard for Virgin Pulp and Paper
-Comparison to SFI (pg. 2)

Background
The Forest Stewardship Council is an international non-profit forest certification organization with members from over 70 countries whose interests reflect a unique combination of biodiversity conservation, environmental protection, civil society, indigenous rights, and wood and paper production. The FSC program is widely accepted as setting the highest standards for protecting people and the environment while allowing for the deliberate and careful logging of forests to support the continued use of the planet's most renewable resource—forests. Since 1993 FSC has certified forest operations in over 70 countries and has been a key driver in the transformation of the forest industry's logging practices.

Clear Differences Between FSC and Other Forest Certification Systems
The Forest Stewardship Council (FSC) is widely accepted by the conservation community and even many in industry as the best-practice standard for forest management and for certified forest products such as wood or paper. FSC is the only forest certification system mentioned in the Environmental Paper Network's treatise for a sustainable paper production system which has been signed by nearly 85 environmental organizations internationally. If the differences between FSC and the many other systems out there such as the Sustainable Forestry Initiative (SFI) or the Canadian Standards Association (CSA) were negligible, then forest certification would be a non-issue. But this isn't the case. The key principles which set FSC apart from the rest include:

- **FSC ensures adequate protections for Endangered and High Conservation Value Forests**
- **FSC ensures that biodiverse forests have not been and will not be converted to plantations**
- **FSC adequately respects and integrates social concerns including the rights of indigenous communities**
- **FSC significantly reduces clear-cut size and chemical use**

FSC Fiber Availability
In the past two years, FSC certification has grown at about 25 percent per year both in the U.S. and globally. As of 2007, there are 88 million acres certified in N. America and global certified acreage is 208 million acres.
To view reports that compare major forest certification schemes, go to:
http://www.greenpressinitiative.org/tools.htm and view hyperlinks to reports under the "Forest Certification" section.

See side-by-side analysis chart comparing forest certification schemes on next page

Forest Certification Schemes

Comparison of Forest Stewardship Council (FSC), Canadian Standards Association (CSA), Sustainable Forestry Initiative (SFI), and Program for the Endorsement of Forest Certification (PEFC)

	FSC	CSA	SFI	PEFC
Allows for best identification and protection of endangered, and High Conservation Value Forests	Yes	No	No	No
Prevents conversion of natural forests to monoculture plantations	Yes	No	No	No
Requires consensus solution when conflicts arise with affected indigenous communities	Yes	No	No	No
Prohibits use of illegally sourced wood	Yes	Yes	Yes	Yes
Prohibits use of both controversial wood sources and High Conservation Value Forests	Yes	No	No	No
Location where certification is available	Worldwide	Canada	USA and parts of Canada	Worldwide
Prohibits use of genetically modified trees	Yes	No	No	No
Total area of certified forestland (hectares)	75 million	74 million	52 million	>200 million (includes sum of FSC, SFI and CSA)
Requires an **equal** balance of social, economic, and environmental considerations	Yes	No	No	No
Is internationally recognized as the best standard in forest management by a wide range of environmental NGOs	Yes	No	No	No
Most widely preferenced certification system by U.S. book publisher and printers*	Yes	No	No	No

Data obtained from the following sources:

EEM, Inc. "A Paper Buyers Guide to Forest Certification Schemes" 2007. http://www.greenpressinitiative.org/documents/Certification%20Comparison.pdf

FERN. "Foorprints in the Forest" 2004. http://www.fern.org/media/documents/document_1890_1900.pdf

*Data obtained from surveys conducted by an independent party for the Green Press Initiative/Book Industry Study Group Environmental Trends Report

Environmental Benefits of Recycled Paper

Calculations Based on Each Ton (2000 lbs.) of Postconsumer Recycled Fiber That Replaces a Ton of Virgin Fiber Uncoated Freesheet [www.papercalculator.org]

What	Enviro Savings	% Better
Energy Consumption	17 million BTU's	41.4%
Greenhouse Gas Emissions	2,108 pounds	38.8%
Hazardous Air Pollutants	2 pounds	92.7%
Water Utilization	8,750 gallons	49.7%
Solid Waste Generation	1,124 pounds	49.3%
Typical Trees	24 trees	100

Environmental Leadership Survey
--Paper Manufacturers

Introduction
The following survey is designed to better inform [company name] as we evaluate the environmental leadership of our current and potential supply chain partners. The information obtained through this survey will also assist [company name] as we develop and implement our environmental goals regarding paper consumption.

Book Grades With Environmental Attributes

1. How many book paper grades does your company/offer make that meet or exceed the accepted standards of 10% postconsumer for coated grades and 30% postconsumer for uncoated grades?

Brand names and basic specifications:

2. How many book paper grades are (a) FSC certified and also meet or exceed the recycled content levels above? (b) How many book papers are 3rd party chain of custody certified (SFI, CSA, etc.)?

Brand name and basic specifications:

3. What are your company's plans to develop new grades that are FSC certified and meet the recycled content levels above. Please describe goals and give some indication of intended timelines.

Forest Resources

1. Which mill(s) are currently producing book paper for our company? Please provide mill names and locations (including country of origin, state or province, and nearest city).

2. What percent of virgin pulp is produced from forestlands owned and/or managed by your company or by a third party supplier that you have a long-term contract with?

3. What percent of virgin pulp is sourced from the open market? Who are the primary pulp providers and what are the geographic areas for the primary forests of origin for the virgin pulp? (include country of origin, state or province, and nearest town in addition to forest management unit name and/or GPS coordinates if possible)

4. If your company owns or manages forestlands, are they a. FSC certified b. are they third part chain-of-custody certified? According to what standard(s)?

5. If you do not own or manage forestlands, then what percent of the virgin pulp is FSC certified? What percent of virgin pulp meets the FSC controlled wood standard? What percent comes from certified souorces? Which certification systems?

6. If you own/manage forestlands, then have you conducted a High Conservation Value Forest Assessment in the tenures that supply the mills that we buy from and have these involved other interested parties (e.g. local and indigenous communities, NGO's)? If so, have the recommendations coming out of those studies for maintaining HCVF's been adopted and implemented?

7. How are you replanting in the region? With single or multiple tree species?

8. Do you currently manage forests with herbicides and/or fertilizers?

9. Is your company committed to ending the conversion of native forests to tree plantations? Please explain.

10. Do you plan to manage/support management of forests to the FSC standard in the near future? If no, why not?

Energy & Climate Change

1. What percent of your overall energy use is supplied by cogeneration?

2. What percent of your overall energy use is from the grid? From wind, solar, or biogas sources? Other (please specify)?

3. Is any energy supplied by burning tires? If yes, where is the source located and what air pollution controls have been established?

4. Does your company purchase blocks of green energy? If so, please explain.

5. Do you plan to expand your use of wind, solar, or other renewable energy sources in the future? Please explain.

6. Please describe energy conservation efforts and accomplishments.

Clean Production

1. Which bleaching technologies are currently used to produce the book papers and/or are used by the companies where you acquire market pulp?

2. Are there plans for the integration of Process Chlorine Free (PCF) technologies that make use of ozone and hydrogen peroxide? If no, are there plans for developing Enhanced Elemental Chlorine Free (EECF) technologies—making use of extended delignification?

3. Is the caustic soda used by your company or pulp suppliers produced without the use of mercury? If no, are there plans to switch to caustic soda produced without the use of mercury?

4. Please describe recent pollution prevention gains and future plans.

Other

1. Please describe how your company maintains transparency and works with diverse stakeholders.

2. Has your company signed the Book Industry Treatise on Responsible Paper? If not, why and do you plan to?

3. Is your company willing to support industry advancements in recovered fiber? If so, how?

4. Is your company willing to provide grades that meet environmental specifications mentioned above at comparable pricing?

5. Does your company produce a regular Corporate Sustainability Report? If so, please provide the link to it if it is available online.

6.. Is your company interested in participating in a future solicitation for pricing related to book grades with strong environmental attributes?