

FINDINGS FROM THE U.S. BOOK INDUSTRY

environmental trends and climate impacts

**A Research Report Commissioned by
Book Industry Study Group and
Green Press Initiative**

**Prepared by Borealis Centre for
Environment and Trade Research**

Introduction: Summary and Highlights

This study of the U.S. book industry is the first of its kind; it seeks to help the industry understand its environmental impacts, assess possible areas for improvement, and make specific recommendations about improving its ecological footprint. The Book Industry Study Group and Green Press Initiative invited their respective constituents involved in all segments of book production to take part in the 2007 Environmental Benchmarking Survey. Invitations to participate were sent to over 1,000 stakeholders including book publishers, retailers, distribution companies, and paper mills. The response rate included 13 printers representing 24.6% of market share as measured by revenue; six paper mills representing 17% of market share as measured by the quantity of paper produced; and 76 publishers representing more than 45% of market share by revenue.

The study tracks a wide variety of environmental indicators, including energy use by all participants of the book industry in all segments, environmental policy development, transportation of books, resource consumption, the certification and conservation of forests, and the production, disposal, and recycling of paper.

The Industry's Climate Impact

A carbon footprint assessment found that the entire book industry, through all steps of production, retail, and publishing activities, emits a net 8.85 pounds per book or 12.4 million metric tons of car-

bon emitted for the entire U.S. book industry each year. The majority of the climate impacts are connected to loss of carbon storage capacity from a heavy reliance on wood fiber for paper and from the energy requirements for producing paper. The decomposition of books in landfills, book distribution, and energy consumption at the retail level were the next largest carbon impact areas, as described in Table I.

The carbon footprint model used to calculate the book industry's climate impacts is comprehensive and grounded in science. However, it accounts for forest carbon loss due to harvest, a factor that many existing models have yet to attempt. This issue and the many complex layers connected to it are explored in-depth later in the report in the section, The Climate Impact of the Book Industry and Its Carbon Footprint, starting on page 23.

Impacts on Key Forests

The sourcing of forest fiber still poses risks for the book industry. Several regions where book paper fiber is procured have areas of Endangered or High Conservation Value Forests that are not yet protected. Impact areas include the forests of the southeastern United States and large areas of wilderness forests in Canada, Indonesia, and northern Europe, as well as smaller areas of rare or disappearing forest ecosystems in the western United States, Brazil, Chile, and Russia. A list of studies of

TABLE I Carbon Impact Areas for the U.S. Book Industry

Segments of the Industry	Share of Carbon Emissions	Notes
Forest and Forest Harvest Impacts	62.7%	Harvest and transport of fiber to the mill constitute only 1.52%; the remainder, 61.22%, is removals of biomass from the forest. A portion of the latter is offset by storage in books, recycling of books, and energy recovery.
Paper Production, Printing Impacts	26.6%	Paper production at the mill constitutes 22.4%; the remainder, 4.16%, is printing and binding.
Landfill Releases (methane)	8.2%	Methane releases from landfilled books.
Distribution and Retail Impacts	12.7%	Distribution is for books to the market; retail is energy consumed in stores.
Publishers' Impacts	6.6%	Publishers' impacts are energy used in offices, internal paper consumption, and business travel.
Carbon Storage in Books and Energy Recovery	-16.8%	Books store a portion of the carbon from biomass in the products themselves; incinerating waste, although it has some of its own environmental risks, recovers some energy.

these forest areas is provided as a resource for purchasers to understand where the risks are for book paper sources.

Key Trends

Key trends in the book industry according to the surveys include:

- There is a significant shift toward the use of post-consumer recycled fiber for books (see Figure 1).

- A significant proportion of companies involved in book publishing and retailing have environmental policies covering a spectrum of issues, from energy use and transportation to the use of environmentally responsible paper.
- The use of certified virgin fiber is increasing, as is industry support for certified fiber through environmental policies, with the Forest Stewardship Council (FSC) certification as the most preferred certification system (see Figure 2).

FIGURE 1 Post-Consumer Content in Book Papers: As Reported by Mills.

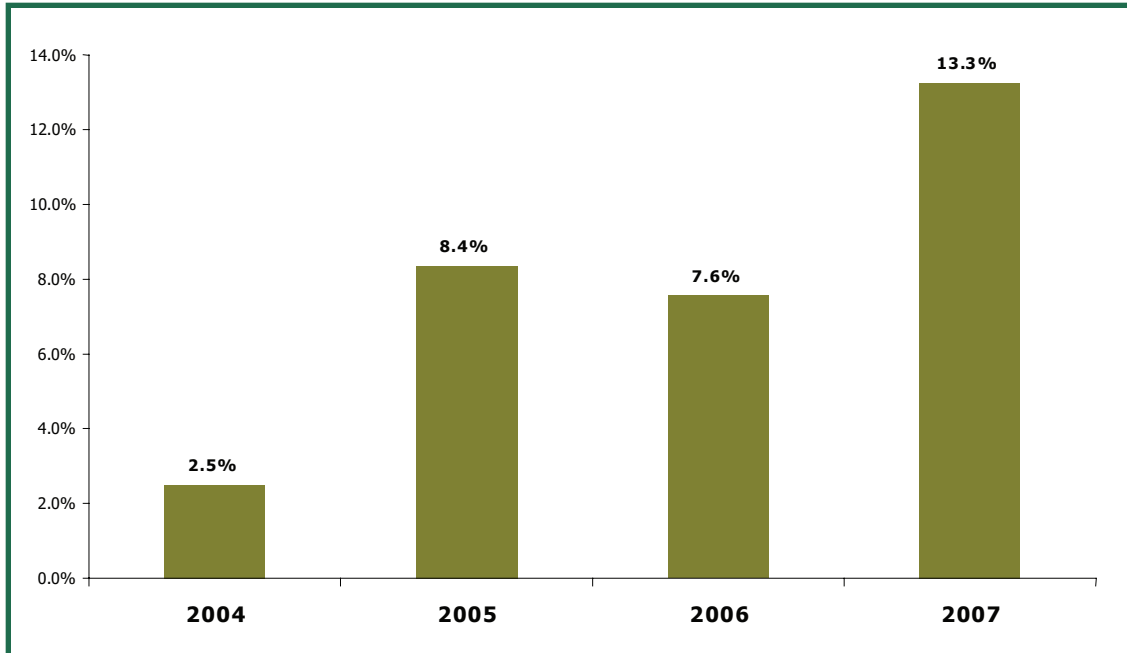


FIGURE 2 Survey Response: Preference of Certification among Publishers and Printers. (FSC = Forest Stewardship Council; SFI = Sustainable Forestry Initiative; CSA = Canadian Standards Association; PEFC = Programme for the Endorsement of Forest Certification.)

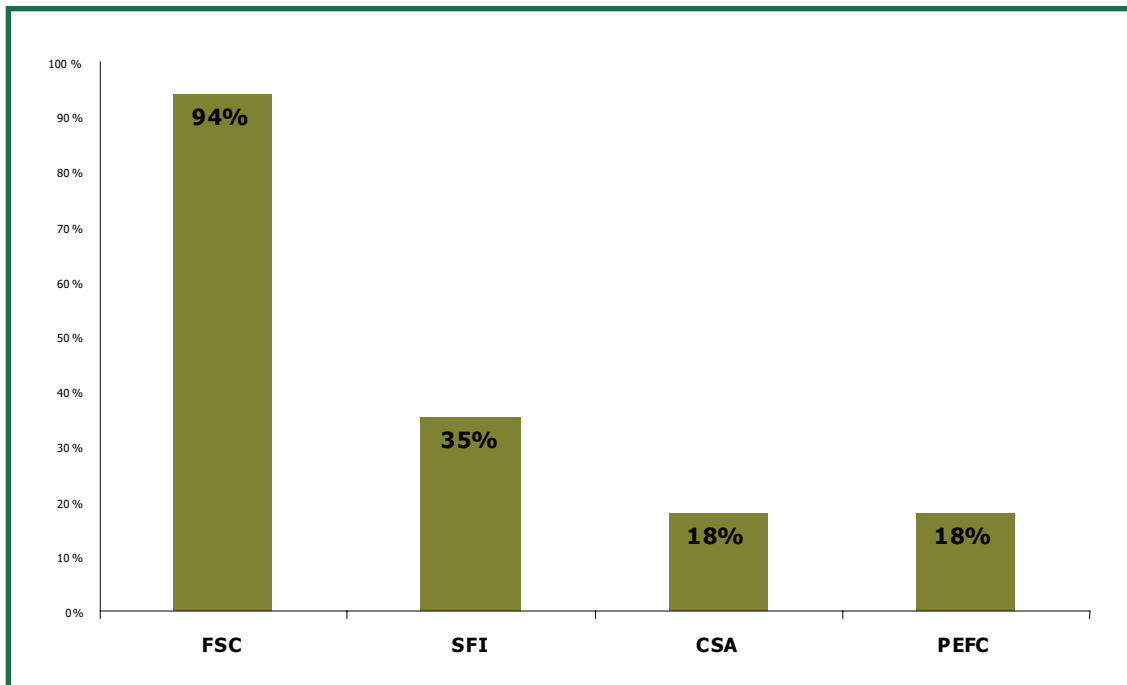
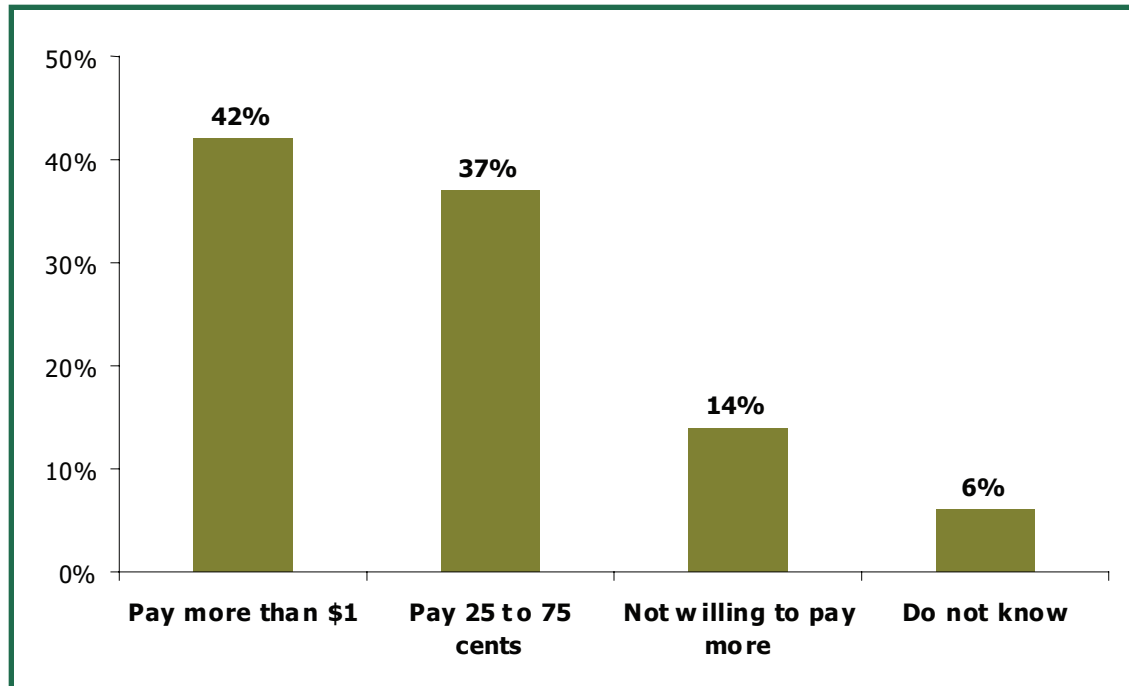


FIGURE 3 Willingness to Pay for Books on Recycled Paper.



- Support for the *Book Industry Treatise on Responsible Paper Use* also demonstrates strong support for increasing recycled and certified fiber. It has been endorsed by 150 publishers, 10 printers, 4 paper manufacturers, and 75 other industry stakeholders.
- Reader support for industry innovation is strong. A poll commissioned by *Book Business* magazine and Green Press Initiative—the results of which are shown in Figure 3—demonstrated readers’ willingness to pay more for books with a higher environmental profile.

Success Models and Next Steps

The report ends with positive case studies and recommendations for the industry, including:

- Reducing overproduction, ensuring the pulping of any unsold books, and increasing the use of recycled fiber in books.
- Maximizing the use of recycled and FSC-certified or equivalent fiber in paper.
- Moving to lower basis-weight papers where possible to reduce paper use.
- Adopting energy-saving measures and certified sustainable building plans, and purchasing renewable energy, especially in the retail sector.
- And much more.