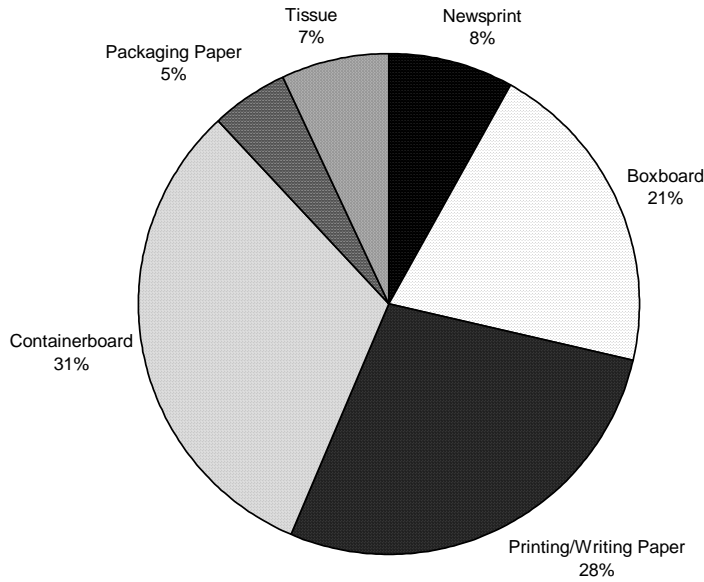


## Global and U.S. Paper Production and Consumption Statistics

- Of the global wood harvest for “industrial uses” (everything but fuelwood) 42% goes to paper production. (Abromovitz and Mattoon, *Worldwatch Paper: Paper Cuts*, p. 20, 1999)
- Of the 42 percent of the world’s industrial wood harvest going to paper, almost two thirds comes from wood harvested specifically for pulp, while the rest derives from mill residues such as wood scraps and sawdust. ((Abromovitz and Mattoon, *Worldwatch Paper: Paper Cuts*, p. 20, 1999)
- Industrialized nations, with 20 percent of the world’s population, consume 87 percent of the world’s printing and writing papers. (Klaus Toepfer, Executive Director, United Nations Environment Programme, Keynote Address UNEP’s 7th International High Level Seminar on Cleaner Production, 29-30 April 2002.)
- Global production in the pulp, paper and publishing sector is expected to increase by 77% from 1995 to 2020 (OECD Environmental Outlook. Paris: OECD, 2001, p.215)
- The pulp and paper industry is the single largest consumer of water used in industrial activities in OECD countries and is the third greatest industrial greenhouse gas emitter, after the chemical and steel industries (OECD *Environmental Outlook*, p. 218)
- Paper pulp exports from Latin America from forests converted into plantations and from the harvesting and conversion of tropical and subtropical forests are expected to grow 70 percent between 2000 and 2010. (Mark Payne, “Latin America Aims High for the Next Century, Pulp and Paper International 1999)
- Most of the world’s paper supply, about 71 percent, is not made from timber harvested at tree farms but from forest-harvested timber, from regions with ecologically valuable, biologically diverse habitat. (*Toward a Sustainable Paper Cycle: An Independent Study on the Sustainability of the Pulp and Paper Industry*, 1996)
- Tree plantations host about 90 percent fewer species than the forests that preceded them. (Allen Hershkowitz, *Bronx Ecology*, p. 75, 2002)

**US Paper and Paperboard Production, 2000 (AF&PA)**



**Printing and Writing Grade and End Use Snapshots USA**

| Printing & Writing Paper Snapshot               | Tons (000)    | End Use Uncoated Free-sheet Snapshot            | Tons (000) |
|---|---------------|---|------------|
| Uncoated free-sheet                             | <b>13,898</b> | Office Reprographics                            | 4,656      |
| Coated Paper                                    | <b>9,615</b>  | Commercial Printing                             | 3,297      |
| Uncoated Groundwood                             | <b>1,832</b>  | Business Forms                                  | 1,892      |
| Printing & Writing Total                        | <b>26,935</b> | Envelopes                                       | 1,430      |
|   |               | Books   | 626        |
| <i>U.S. Statistics. Source: AF&amp;PA, 2000</i> |               | <i>U.S. Statistics. Source: AF&amp;PA, 2000</i> |            |

**World's Top 30 Producing and Consuming Countries, 2000 (Pulp and Paper International)**

| Paper & Paperboard Production |                   | Pulp Production |                   | Paper & Paperboard Consumption |                   |
|-------------------------------|-------------------|-----------------|-------------------|--------------------------------|-------------------|
| Country                       | Metric Tons (000) | Country         | Metric Tons (000) | Country                        | Metric Tons (000) |
| USA                           | 85,495            | USA             | 57,002            | USA                            | 92,355            |
| Japan                         | 31,828            | Canada          | 26,411            | China                          | 36,277            |
| China                         | 30,900            | China           | 17,150            | Japan                          | 31,736            |
| Canada                        | 20,689            | Finland         | 11,910            | Germany                        | 19,112            |
| Germany                       | 18,182            | Sweden          | 11,517            | United Kingdom                 | 12,684            |
| Finland                       | 13,509            | Japan           | 11,399            | France                         | 11,376            |
| Sweden                        | 10,786            | Brazil          | 7,463             | Italy                          | 10,942            |
| France                        | 9,991             | Russia          | 5,814             | Canada                         | 7,476             |
| Korea                         | 9,308             | Indonesia       | 4,089             | Korea                          | 7,385             |
| Italy                         | 9,000             | Chile           | 2,841             | Spain                          | 6,922             |
|                               |                   |                 |                   |                                |                   |

## Paper Recovery

- Recovery of all printing-writing papers is 41.1% (office paper is recovered at a rate of 46.9%), but only 4.8% recovered paper goes back into making new recycled printing and writing paper. (AF&PA Paper Recovery Progress Report, May 2001)
- 12,891,000 tons of printing and writing paper (42.1%) was recovered in 2001 (pre- and postconsumer). Where does it go?
  - 10.9% into new printing and writing paper
  - 34.9% - net exports
  - 23.4% - tissue
  - 20.6% - recycled paperboard
  - 4.5% - newsprint
  - 5.8% - all other(Recovered Paper Statistical Highlights, 2002 Edition, AF&PA)

## Paper Impacts on Forests: Global and Regional Statistics

### U.S. Southeast

- The Southern US, which contains the most biologically diverse forests in North America (Ricketts, Taylor H. et al, *Terrestrial Ecoregions of North America*, Island Press, Washington DC (1999)), is the largest paper-producing region in the world. (See, USDA Forest Service Southern Forest Resource Assessment 2001 -- hereinafter: USFS, SFRA 2001)
- The paper industry is the largest consumer of forests in the Southern US, currently logging an estimated 5 million acres of forests (an area the size of New Jersey) each year. (See, USFS SFRA 2001)
- While the Southern U.S. contains 31% of the nation's timber inventories, it is harvesting 54% of the nation's total timber volumes. (Ted Williams, "False Forests," *Mother Jones* May/June 2000, p. 73)
- Forest Service, monoculture tree plantations feeding the 156 chip mills in the South (110 of them built since 1990) now make up almost 40 percent of all pine stands in the southeastern U.S., and within twenty years, if current trends continue, tree plantations will make up 70 percent. (Ted Williams, "False Forests," *Mother Jones* May/June 2000, p. 73)
- 75% of the plantations established in the last 20 years have been established at the expense of natural forests (USFS, SFRA 2001) and the conversion of forests to plantations is the leading cause of freshwater wetland loss in the region. (US Fish & Wildlife Service, *Status and Trends of Wetlands in the Conterminous United States 1986 to 1997.*)
- Rural communities where the paper industry is concentrated are economically worse off than other rural communities, experiencing higher levels of poverty and unemployment and lower expenditures on public education. (USFS, SFRA 2001)

### British Columbia, Canada

- Temperate forests are the most endangered forest type on the planet (World Resources Institute, 1997)
- Temperate rainforests only ever covered 0.2% of the world's land surface (Ecotrust and Conservation International, 1992)
- Temperate rainforests are truly ancient forests and contain some of the world's oldest trees.
- BC is home to a quarter of the world's remaining ancient temperate rainforests (WRI)
- One out of eight animal species in BC is at risk of extinction, according to the BC Ministry of Environment. Logging was identified as one of the primary contributing causes (BC Ministry of Environment, State of the Environment Report 2000).
- BC's Ministry of Forest data states that the rate of logging in BC is unsustainable (BC Ministry of Forests)
- 90% of the logging in British Columbia (BC) occurs in ancient forests (BC Ministry of Forests).
- Over 40% of the trees cut in BC are used to produce paper (Markets Initiative, 2001)

## Indonesia

- Pulp production has more than quadrupled in the last decade, more than 1.4 million hectares of natural forest have been replaced by plantations. (Worldwatch Institute, "Paper Cuts" Abramovitz, 1999, p. 25)
- Satellite data shows that 80 percent of the fires that burned over 2 million hectares of Indonesian forest in 1997 and 1998 were set mainly to clear land for palm oil and pulpwood plantations. ("The Year the World Caught Fire", Nature December 1997)

## Environmental Benefits of Recycled Paper

Switching from virgin to recycled content paper results in many benefits. Research by the Alliance for Environmental Innovation has shown that each ton of recycled fiber that displaces a ton of virgin fiber used in coated groundwood paper (stock used in magazines):

- Reduces total energy consumption by 27%
- Reduces net greenhouse gas emission by 47% and reduces particulate emissions by 28%
- Reduces wastewater by 33%, reduces solid waste by 54%, and reduces wood use by 100%

### 30% Postconsumer Copy Paper

One ton (40 cases) saves the equivalent of:

- 7.2 trees [forty feet in height and 6-8 inches in diameter] - (Conservatree)
- 2,100 gallons of water, 1,230 kw hours of electricity, and 18 pounds of air pollution - (Conservatree)

### 100% Postconsumer Copy Paper

One ton (40 cases) saves the equivalent of:

- 24 trees [forty feet in height and 6-8 inches in diameter] - (Conservatree)
- 7,000 gallons of water, 4,100 kw hours of electricity, and 60 pounds of air pollution - (Conservatree)

**Primary Sources:** *Paper Cuts*, Abramovitz and Mattoon 1999. *Bronx Ecology*, Hershkowitz 2002, *Pulp and Paper Factbook*, AF&PA 2000. Danna Smith-Dogwood Alliance, Nicole Rycroft-Markets Initiative, Susan Kinsella-Conservatree,  
Compiled by Tyson Miller of SEE Innovation and the Green Press Initiative