



Two Sides

- Global, non-profit, member-funded organization
- More than 600
 members around the
 globe–large and small,
 from across the Graphic
 Communications and
 Paper-based Packaging
 value chain

Two Sides is your advocate for Print and Paper Products

- Our mission is to eliminate misleading, unsubstantiated environmental claims about print, paper and paper-based packaging
- To promote the sustainability of the paper industry and its products

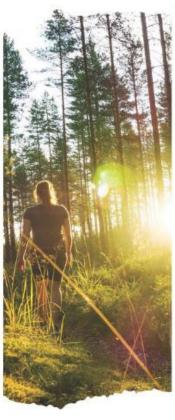
The work we do

- Advocate for the sustainability of the paper industry and its products to corporations, businesses and consumers
- Conduct and distribute research and educational materials
- Challenge Corporate Greenwashing
- Develop Webinar content and present at industry events





Two Sides Latest Trend Tracker Survey Reveals Both Challenges And Opportunities For The Print And Paper Industry



About The Survey

In January 2023, a global survey of 10,250 consumers was commissioned by Two Sides and conducted online by independent research company Toluna.

This blennial survey seeks to understand changing consumer preferences, perceptions and attitudes toward print, paper, and paper-based packaging, specifically their:

- · Environmental Perceptions
- Reading Habits
- Packaging Preferences
- · Attitudes Towards Tissue Products

Nationally representative surveys were undertaken in Argentina (400), Brazil (1,000), Chile (350), Paraguay (200), South Africa (500), the United States (1,000) and Europe, including Austria (500), Belgium (600), Denmark (500), Finland (350), France (1,000), Germany (1,000), Italy (1,000), Norway (350), Sweden (500) and the United Kingdom (1,000).

Herein are some key findings for the United States. There was incremental improvement in consumer perceptions about paper's overall impact on the environment, as well as on specific environmental issues related to paper products, such as the growth of U.S. forests and paper recycling rates.

Consumer preference for printed materials in all categories studied showed a post-pandemic rebound. The percentage of consumers who believe that paper packaging is better than other types of packaging for the environment remained steady, while a growing number said they are actively taking steps to increase their use of paper-based packaging.

Print, Paper and Paper Packaging have a great environmental stary to tell two sices were tweaters in

Environmental Misinformation Damages Businesses & Influences Consumer Perceptions

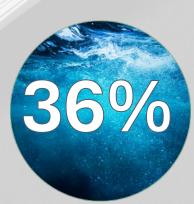
Trend Tracker Survey 2025 Preview Environmental Consumer Perceptions



Think Paper & Paper-based packaging are bad for the environment



Think that more than 60% of paper & paperbased packaging gets recycled



Think U.S. forests are reducing in size



Think paper & paper-based packaging are a major cause of greenhouse gas emissions

Think paper & paper-based packaging manufacturing uses excessive amounts of water

Busting the Myth

The production and use of paper and paper-based packaging cause deforestation



What is deforestation?

- The permanent conversion of forestland to non-forest use
- Sustainable harvesting of trees to make products that benefit society is not considered deforestation because the trees will grow back

— UN Food and Agriculture Organization





North American forests are a renewable resource and are not shrinking. Net U.S. forest area grew by ~18 million acres between 1990 and 2020.

— UN FAO





- More than half (58%) of forestland in the U.S. is privately owned
- About 89% of wood harvested in the U.S. comes from these privately owned forests, which provide most of the wood for domestically produced paper products.

— U.S. Forest Service, AF&PA







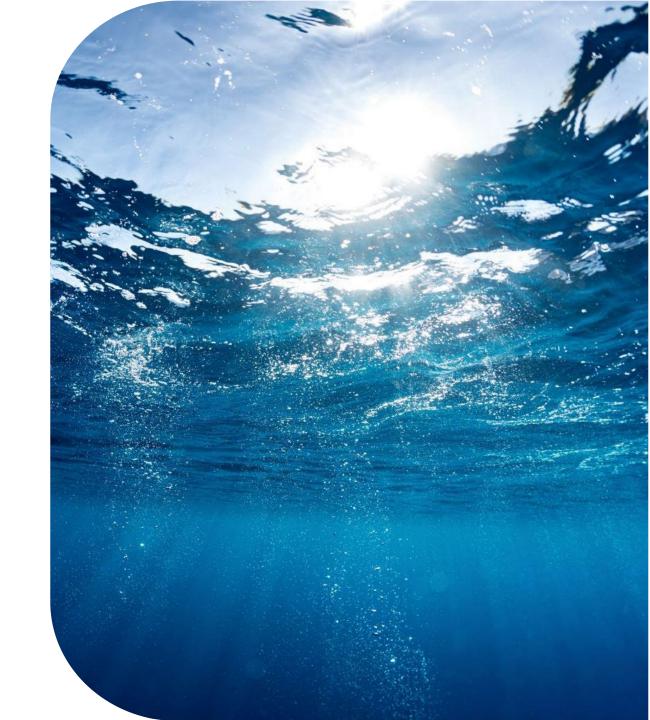
 The demand for sustainable paper products is a powerful economic engine keeping U.S. lands forested vs. development or non-forest uses.

Busting the Myth

The production of paper uses excessive amounts of water



- Water used in papermaking is recycled 10X or more, then it's cleaned to meet strict water quality standards – and approximately 90% is returned to the source
- About 1% of the water remains in the manufactured products and the rest evaporates back into the environment
 - NCASI



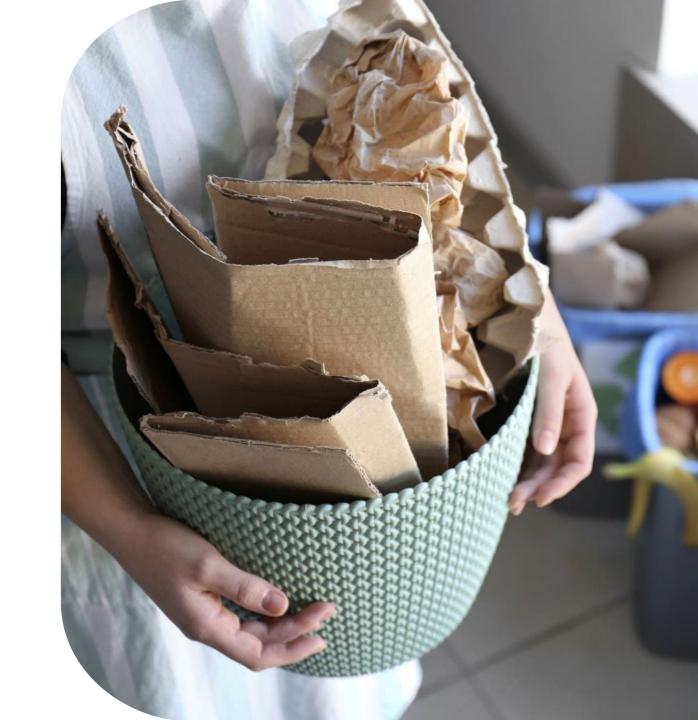


Busting the Myth

Using paper products is wasteful - most paper goes to landfills



- 65% 69% of paper and paperbased packaging in the U.S. is recycled, and that number jumps to 71% - 76% for corrugated boxes
 - EPA, AF&PA
- This compares with plastic at 13%, glass at 31% and metals at 34%
 - — EPA, Glass Recycling Foundation





Why is Paper Recycling Such an Overwhelming Environmental Success Story?

 The U.S. paper industry has voluntarily invested billions of dollars in recycling infrastructure over the last 30 years

 Overwhelming support from consumers, communities and businesses





Busting the Myth

To be truly sustainable, all paper must contain 100% recycled content



 Recycled fiber must originate somewhere, and that origin is the virgin fiber that made up the paper product that got recycled





- Paper can't be recycled indefinitely
- Repeated collecting, cleaning and de-inking, bleaching eventually weakens the fibers to the point they can't bond into new paper, so they must be replaced with virgin fiber

Paper can be recycled 5 to 7 times





 Without the continuous introduction of virgin fiber into the manufacturing system to replace worn-out recycled fiber, the manufacture of recycled paper products would quickly come to a halt







Busting the Myth

Electronic communication is a green alternative to print on paper

Raw Materials

- Electronic devices are made with non-renewable raw materials that require environmentally intensive mining and drilling.
 - Global E-Waste Monitor
- The average American has access to more than 10 devices in their household.
 - Statista







Energy Consumption

Electronic communication uses massive amounts of mostly fossil fuel energy to manufacture and operate devices and the server farms that support them

Electricity consumption from data centers, artificial intelligence (AI) and the cryptocurrency sector could double by 2026. This demand is roughly equivalent to the electricity consumption of Japan.

— International Energy Agency, 2023

Waste Generation

- Since 2010, the growth of e-waste generation outpaced formal collection and recycling by almost a factor of 5
- Globally, only 22% of e-waste is documented as properly collected and recycled
- As levels of e-waste increase, so does improper and unsafe treatment and disposal, posing significant threats to the environment and human health
 - Global E-Waste Monitor

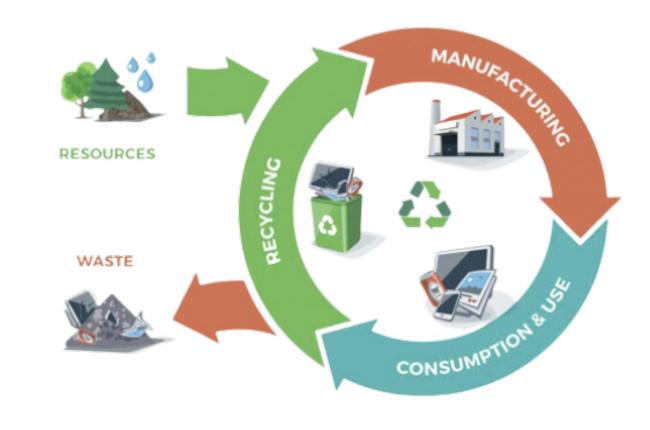




Your Sustainability Case

The paper life cycle is already circular

- Uses a renewable resource (trees from sustainably managed forests) to supply fiber and capture/store carbon
- Cleans and returns nearly all process water to the environment
- Recovers a high percentage of paper that is recycled multiple times into new products







Greenwashing

Disinformation disseminated by an organization to present an environmentally responsible public image.

—Oxford Dictionary

Two Sides 2022 Greenwashing Study

65% of those who have seen greenwashing claims say these messages influence them to switch from paper to electronic communications

Two Sides Anti-greenwashing Campaign Results

- Nearly 200 leading North
 American companies have removed or changed claims
 (>1,100 globally)
- Represents billions of misleading environmental messages removed







Financial Impact of Greenwashing

Annual North American Paper, Print and Mailing Revenue Preserved by Two Sides Anti-Greenwashing Campaign

> \$300,000,000

Direct-to-Consumer Campaign



www.lovepaperna.org

Love Paper talks directly to consumers, educating them on the great environmental story of print, paper and paper-based packaging.



Everyone whose livelihood is connected to paper, packaging, mail, and print, or who wants to have consumer choice and equal access to information has a stake in making the sustainability case for paper!

Thank you!

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Print, Paper and Paper Packaging have a great environmental story to tell