

Making the Environmental Case for Paper



**Kathi Rowzie, President
Two Sides North America
April 21, 2022**

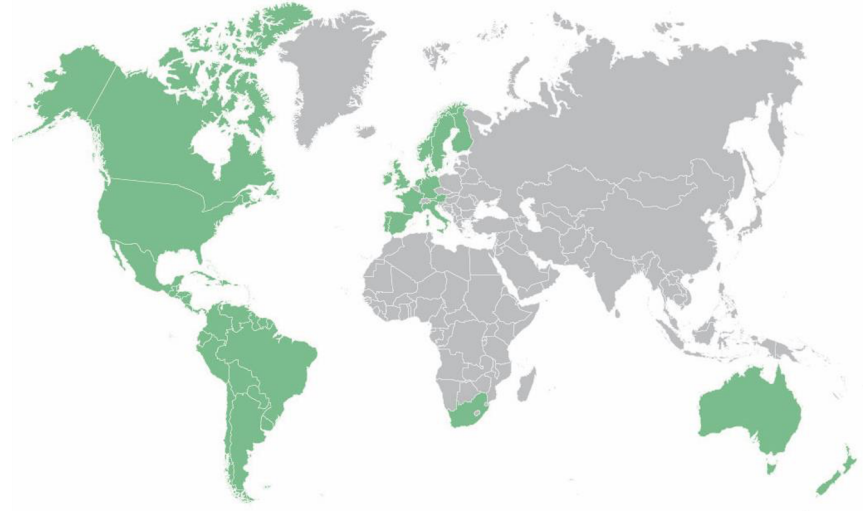
Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Two Sides is your advocate for Print and Paper Products

- Global, non-profit, member-funded organization
- Members, large and small, from across the Graphic Communications and Paper-based Packaging value chain
- > 600 members globally
>150 in North America



MISSION:

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

Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Environmental Myths are Damaging Business & Public Perceptions of Paper Products

Two Sides consumer surveys tell us that people are misinformed about environmental topics related to paper

Misconceptions

- Using paper causes deforestation
- Paper production is a major cause of climate change
- Paper production uses excessive amounts of water
- Using paper is wasteful, most ends up in landfills
- Digital communication is greener than paper



Print and Paper
have a great
environmental
story to tell



TWO SIDES

www.twosidesna.org

Two Sides 2021 Trend Tracker Survey

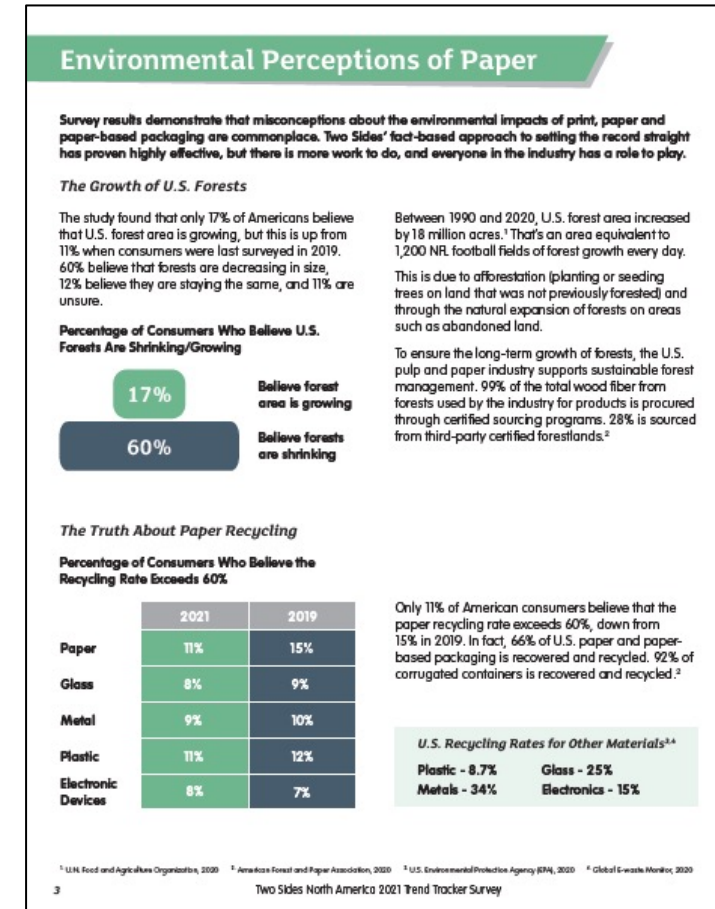
- Published in April 2021
- To explore and understand changing consumer preferences, perceptions and attitudes towards print, paper and paper-based packaging
- A global study of 8,800 consumers (1,000 in the U.S.) by independent research company Toluna
- To be conducted every 2 years; next publication date, April 2023



Trend Tracker Survey, Main Findings

Headlines

- Consumers believe U.S. forests are shrinking
- There remains a significant gap between consumer perception of paper's recycling rate and reality
- Paper packaging is the preferred environmental choice

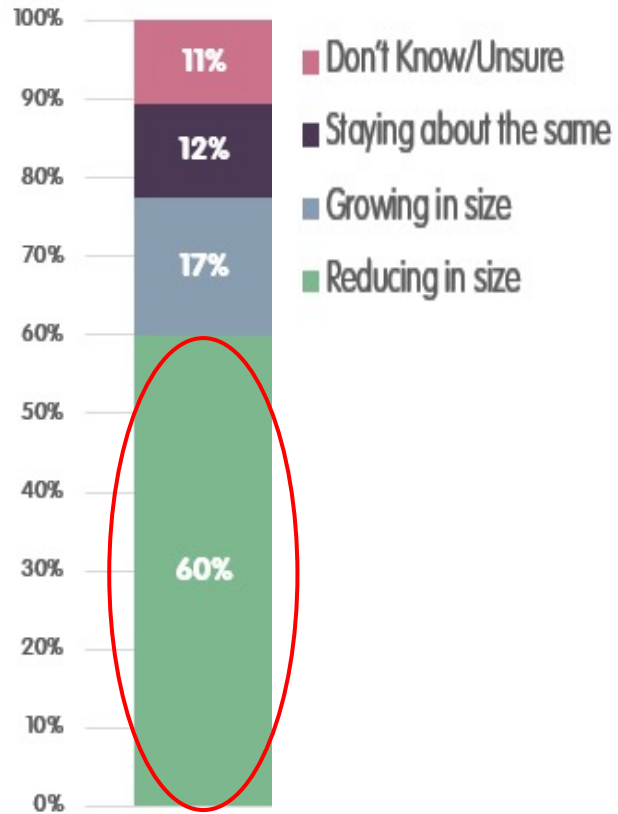


Print and Paper
have a great
environmental
story to tell

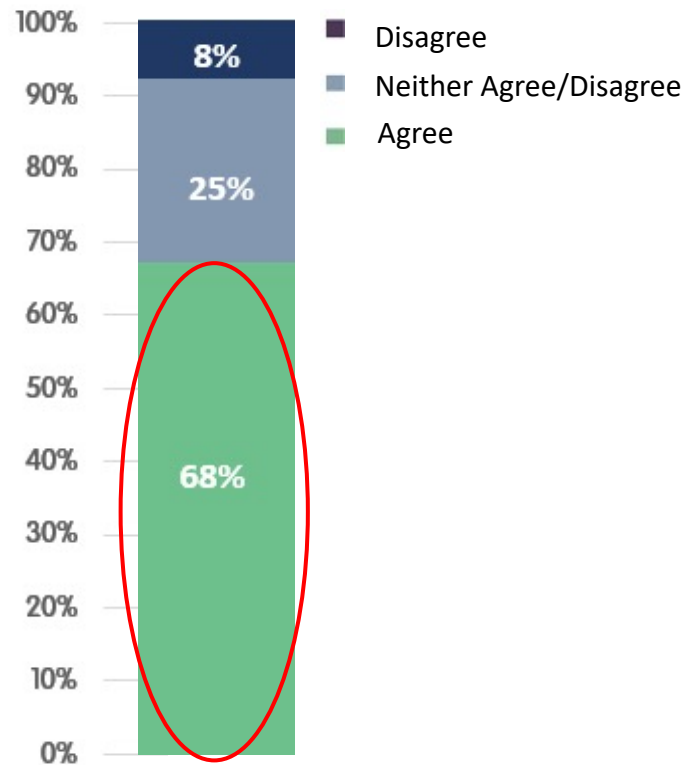


www.twosidesna.org

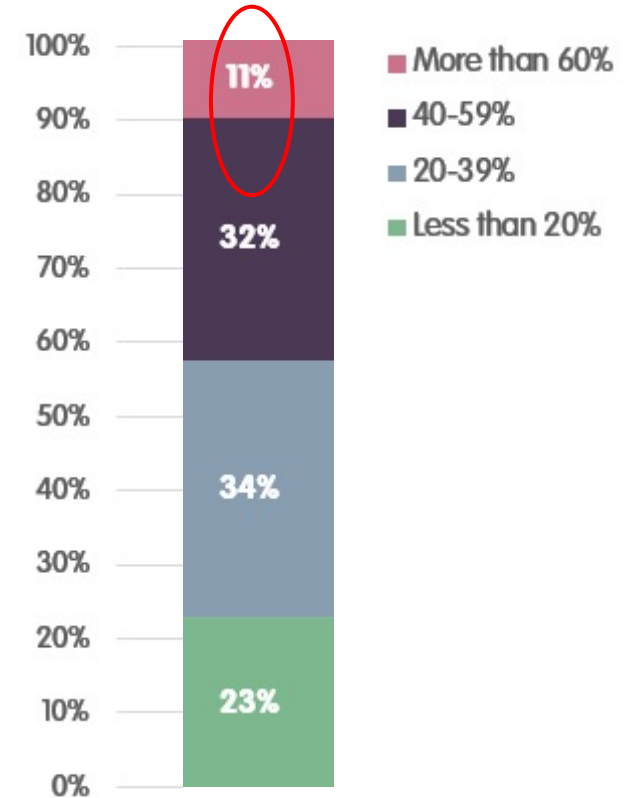
Trend Tracker Survey – Environmental Perceptions



What do you think has been happening to U.S. forests since 1990?



It's important to use paper products from sustainably managed forests

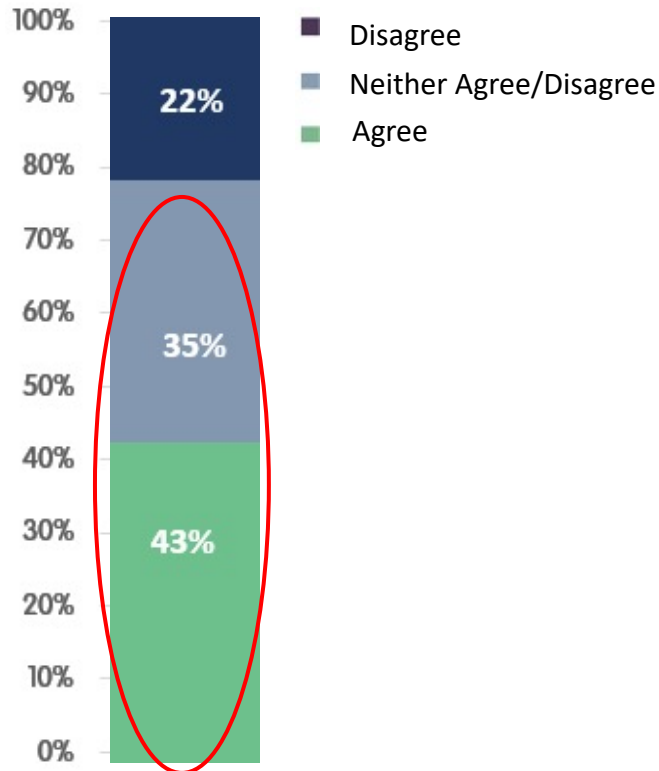


When thinking about paper & paper-based packaging, what % do you think is recycled?

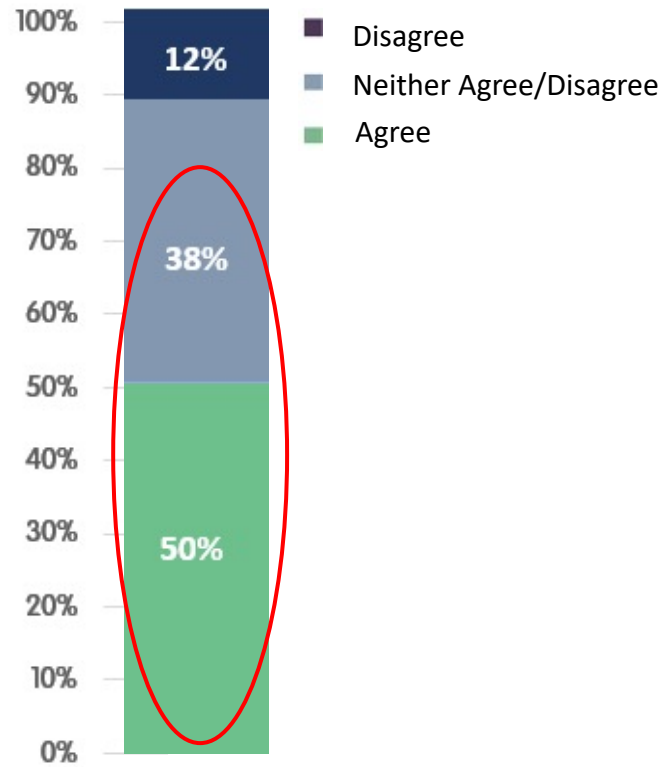
Print and Paper have a great environmental story to tell



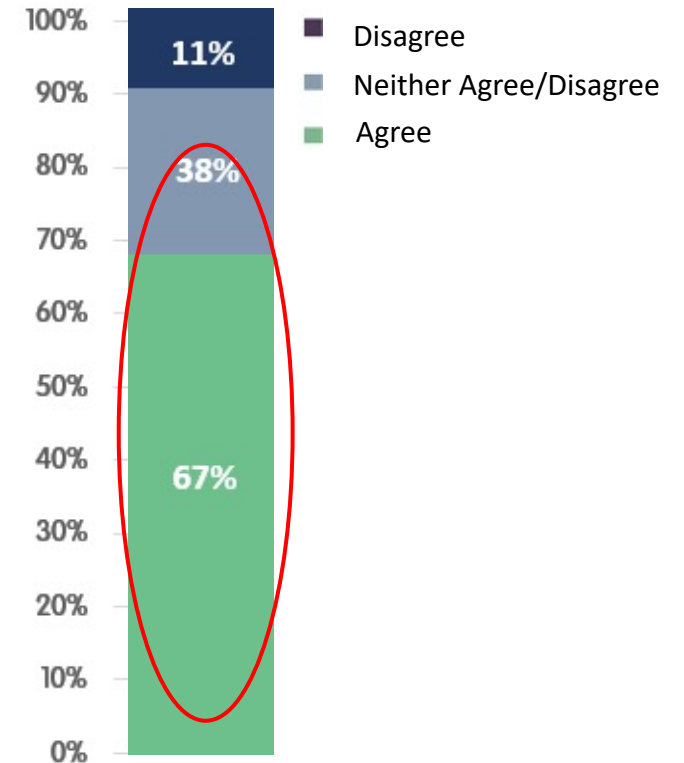
Trend Tracker Survey - Environmental Perceptions



Paper & paper-based packaging is a major cause of greenhouse gas emissions



Paper & paper-based packaging production uses an excessive amount of water



Electronic communication is more environmentally friendly than paper communication

Print and Paper
have a great
environmental
story to tell



Trend Tracker Survey - Environmental Perceptions

- **50%** believe paper-based packaging is better for the environment
- **41%** are actively taking steps to increase their use of paper-based packaging
- **52%** prefer products ordered online to be delivered in paper-based packaging
- **39%** would consider avoiding a retailer that is not actively trying to reduce non-recyclable packaging



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Greenwashing

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

Behavior or activities that make people believe that a company is doing more to protect the environment than it really is.
~ Cambridge Dictionary



Standards for Environmental Marketing Claims

US Federal Trade Commission

Guides for Environmental Marketing Claims

- Claims must be truthful, not misleading and supported by a reasonable basis
- Reasonable basis requires competent and reliable scientific evidence consisting of tests, analyses, research or studies that have been conducted and evaluated in an objective manner
- It is deceptive to misrepresent, directly or by implication, that a product, package or service offers a general environmental benefit (green, eco-friendly, etc.). Marketers should not make unqualified general environmental benefit claims because they are difficult, if not impossible to prove.



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Standards for Environmental Marketing Claims

ISO 14021 (International Organization for Standardization)

- An environmental claim that is vague or non-specific or which broadly implies that a product is environmentally beneficial shall not be used. Terms like environmentally friendly, non-polluting, green, nature friendly must not be used.
- A self-declared environmental claim shall be accurate and not misleading; substantiated and verified; relevant to that particular product and used only in an appropriate context or setting.
- The use of natural objects (trees, the globe, leaves), shall not be used unless there is a direct and verifiable link between the object and the benefit claimed.



Two Sides Anti-greenwashing Campaign

- Only industry organization that directly challenges major corporations and other organizations that use unsubstantiated environmental claims about paper products to convert consumers to electronic communication
- **157** leading North American companies have removed or changed claims (>**800** globally)
- Represents **billions** of misleading environmental messages removed



conEdison, inc.



AT&T

Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

American Electric Power 6 Subsidiaries

5.5 Million Customer in 11 States

BEFORE



Sign up today! Go paperless.

Save time (and trees) by getting your bill online instead of in the mail.



MY ACCOUNT OUTAGES

Home / My Account / Bills & Payments / Paperless Billing / Enroll

ENROLL IN PAPERLESS BILLING

Now you can receive your bill online, saving paper and making your life a little easier.

- **Save paper** - Help the environment by having bills delivered via email, saving paper and trees.
- **Get an email notification** - An email lets you know when your bill is ready.
- **View bills anytime** - Review bill safely and securely with 24x7 access.
- **Free online payment** - You may also be able to pay your bill online for free from your checking account - immediate payment notification now available.

After you enroll to receive your bill online, you will no longer receive a paper bill.

AFTER



MY ACCOUNT OUTAGES

Home / My Account / Bills & Payments / Paperless Billing / Enroll

ENROLL IN PAPERLESS BILLING

You can receive your bill online, making your life a little easier.

- **Free online payments** - Pay your bills online for free from your checking account.
- **Timely** - Receive an email notification when your bill is ready.
- **Safe** - You'll receive a reminder when your bill is coming due and confirmation that we received your payment.
- **Convenient** - Quickly view and analyze your bill 24x7 from your phone, tablet, or computer.
- **Reliable** - See up to 13 months of billing and usage details. And those bills are always available to print if you need them.

After you enroll to receive your bill online, you will no longer receive a paper bill.

Print and Paper
have a great
environmental
story to tell



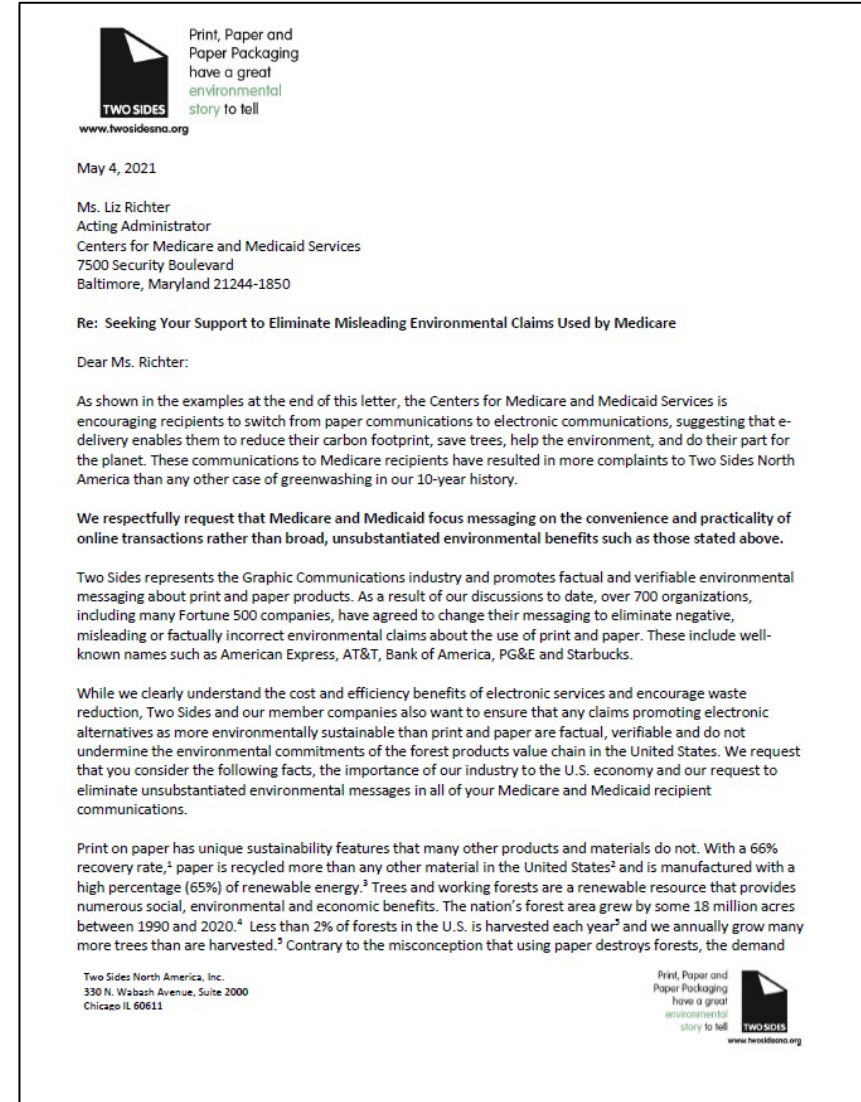
www.twosidesna.org

Two Sides Anti-greenwashing Campaign

Respond to Government Agencies that use misleading and unsubstantiated claims about paper and paper-based packaging

Medicare

44 million Americans are no longer seeing anti-paper environmental claims from Medicare



Two Sides Anti-greenwashing Campaign

Respond to Media that publish misleading and unsubstantiated claims about paper and paper-based packaging.

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

April 14, 2021

TO: Popular Science

RE: Article titled "Modern paper use is wildly unsustainable" published April 6, 2021

<https://www.popsci.com/story/environment/what-you-need-to-know-about-paper-a-hidden-environmental-disaster/>

To the editors:

Myths about the sustainability of the North American paper industry and its products are common media fodder in today's world of sensationalized, headline-driven journalism. This time it was the turn of Popular Science to weave together a collection of standard anti-paper tropes into your "Modern paper use is wildly unsustainable" article.

Shouldn't a publication dedicated to reporting on science resist the easy narrative, hold up a submission to the illuminating glow of real authoritative data and pick up the phone to ask industry scientists or a school of forestry if any of what the authors claim makes sense?

Print, Paper and Paper Packaging have a great environmental story to tell
www.twosidesna.org
January 11, 2022
Ms. Ravyn Cullor, Editor
Cosmetics Design - Americas
Dear Ms. Cullor,
Two Sides North America appreciates your recent article on paper versus plastic packaging sustainability, [January 5](#). But incorrect. As a trusted source of information, we encourage our readers to set the record straight.
Cosmetic companies are turning to other manufactured products that just about any other circular that just about any other
Your article makes the claim that the reality is that no North American forest in the U.S., trees used to make paper products by millions of families provides a powerful financial benefit to the forest. Without this incentive, they would not be developed (the paper industry has been consistently over 63% for more than a decade, despite the ban by China of paper products).
In fact, according to the most recent data, the paper industry's net forest area is equal to around 1,200 NFL football fields.
The new Maine Extended Producer Responsibility (EPR) law is, unfortunately, just one of many steps that the industry is taking to improve its recycling rate. The July 22 article, "Maine Will Make Companies Pay for Recycling," says, "Recycling... was even in good times. And, only a small amount actually gets recycled." All too common, the remarkable recycling success story of paper and paper-based packaging in the U.S. and all sectors of society that seek a more sustainable, circular economy.
This success is driven by the industry's significant infrastructure investment and the fact that U.S. producers have announced or planned \$4.5 billion in manufacturing capacity for "recyclable by design" products. The industry also is focused on eliminating non-recyclable materials.

Print, Paper and Paper Packaging have a great environmental story to tell
www.twosidesna.org
Letter to the Editor
Hollywood Reporter
February 24, 2022
Dear Editor:
Here we go again – another Hollywood environmental campaign tailor-made to backfire. [Bradly Whitford, Gloria Calderon Kellet Join Pledge to Get Hollywood Paperless by 2030](#) mature beyond the superficial "Go Paperless" slogans to recognize the inherent environmental consequences of paper products and the serious environmental consequences of substituting them with electronic alternatives?
In the real world, going paperless actually endangers North American forests. The forests harvested for paper are privately owned by literally millions of Americans. These forests are sold to be converted to housing developments, strip malls and parking lots. The primary cause of forest loss in the U.S. is urban sprawl, not papermaking.
Think about what "Go Paperless" really means. It means substituting the natural, renewable carbon-neutral bioenergy. Carbon intensive electronic media require the invasive mining of the planet's finite supply of minerals and rare earths, together with the use of fossil fuels to continuously power billions of electronic devices and the massive server farms that support them.

Print, Paper and Paper Packaging have a great environmental story to tell
www.twosidesna.org
In response to the December 7 article titled "Brands, here's how much your paper sales catalogs are harming the earth" (<https://www.outsidebusinessjournal.com/issues/sustainability/brands-heres-how-much-your-paper-sales-catalogs-are-harming-the-earth/>)
Reaching Outdoor Consumers in an Environmentally Responsible Way: The Return of Printed Paper Catalogs
By Kathi Rowzie, President, Two Sides North America
After a sharp decline in 2020, printed catalogs are coming back in a big way. Market research firm Keypoint Intelligence reports that digital print volumes – the production method for most smaller-run catalogs – has rebounded close to its pre-pandemic level, and demand is expected to soar past pre-pandemic production next year and continue rising at a compound annual rate of 8% through 2025.
Why? As the rising cost of digital advertising increases the cost of acquiring and keeping customers, brands are looking for omnichannel strategies that enhance customer experiences, build loyalty and increase sales. Printed catalogs allow brands to connect with consumers in ways that digital platforms cannot.
The touch, feel and even the smell of catalogs provide a more intimate shopping encounter, and that interaction can be highly personalized thanks to today's digital printing technology. Catalogs have staying power far beyond a quick scan on a handheld device. And their enticing visual appeal offers a shopping-as-entertainment experience that drives consumers online to learn more, seek additional products and make both online and in-store purchases. At the same time, the ability to target digital advertising has become less precise with the advent of new online privacy policies that allow consumers to opt out of being tracked.
The catalog comeback can also be attributed to brands' efforts to tap into growing consumer awareness of sustainability and the desire to create a more environmentally friendly, circular economy. These savvy brands are looking beyond simplistic environmental paper calculators and pop culture myths about the environmental sustainability of paper – that it causes deforestation, is a major contributor to climate change, consumes huge amounts of water and generates excessive waste – and instead, are depending on hard, science-based facts to drive their marketing decisions.
For example, the UN Food and Agriculture Organization (FAO) defines deforestation as the permanent loss of forestland. In the United States, trees to make paper are grown, harvested and regrown using sustainable forest management practices that perpetuate infinitely renewable forestlands. In fact, in its recent Global Forest Resources Assessment, the UN FAO reported that net forestland area in the United States actually increased 18 million acres between 1990 and 2020. That's an area equivalent to 1,200 football fields.

Why pursue greenwashing claims?

Greenwashing claims by respected companies, media and government damage consumers' perceptions of paper products and negatively influence their willingness to use them

- The print, paper and mail value chain supports 7.4 million U.S. jobs (4.6% of total civilian workforce)
- Value chain contributes \$1.58 trillion in sales revenue or 4.3% of total US output



EMA Foundation US Mailing Industry Economic Job Study, 2019

Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Promoting the sustainability of paper products

- Factual, authoritative information from trusted third-party sources
- Provide paper customers and other stakeholders with a fact-based foundation for making well-informed decisions about the use of paper products

Paper Production And Sustainable Forestry

The Facts

In North America, forests are a renewable resource that is continuously replenished using sustainable forest management practices. We grow many more trees than we harvest. While saving trees and protecting forests is a widely shared goal, avoiding the use of wood is not the way to protect forests over the long term. Continued use of paper and other wood products is an important factor in maintaining a forested landscape for future generations.

State of North American Forests

Net forest area in the United States increased by approximately 10 million acres between 1990 and 2020.¹

Canada's net forest area was quite stable between 1990 and 2020 at approximately 857 million acres.²

The last tree-free news volume on U.S. timberland exceeds 1 billion cubic feet. That translates to nearly 9 billion stacked cords of wood, or enough wood to fill the Great Pyramid of Giza 12 times. Of live-tree volume in the country, 48 percent is considered growing stock, and live-tree volume is nearly split in half between softwoods and hardwoods.³

Canada's forests contain about 45 billion cubic meters of wood – enough to build over 1 billion average single-family homes.⁴

Each year, forests in North America grow significantly more wood than is harvested. In the U.S., the net average annual increase in growing stock on timberland is about 25 billion cubic feet.⁵

Tree cutting and removal in the U.S. occurs on less than 2% of forestland per year in contrast to the nearly 3% disturbed annually by natural events like fires, diseases, and insects.⁶

Harvesting occurs on 0.2% of Canada's timberlands, while 4.7% is disturbed by insects and 0.5% is disturbed by fire.⁷

Forestland is the largest terrestrial carbon sink on earth. The accumulation of carbon in forest ecosystems is driven by tree growth resulting in sequestration of carbon dioxide in the biomass.⁸

Causes of Deforestation and Forest Fragmentation

Deforestation is defined by the FAO as the conversion of forest to other land use independently, whether human-induced or not, including permanent reduction of the tree canopy cover below the minimum 10 percent threshold. The term specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures.⁹

Leading Causes of Forest Disturbance in Canada	Area (hectares)	% of Forest Area
Area affected by insects (2016)	16,391,000	4.7%
Area impacted by fire (2016)	1,841,000	0.5%
Area harvested (2016)	748,000	0.2%
Area deforested (2016)	54,000	0.01%

Forest Ownership

More than half (58%) of the forestland in the U.S. is privately owned and managed. Approximately 11 million families, individuals, trusts, and estates, collectively referred to as family forest owners, control 56% of private forestland, more than any other group.¹⁰

1-877-999-7729
www.twosidesna.org
info@twosidesna.org

@twosidesna
@twosidesna
CompanyTwoSidesna

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

TWO SIDES
www.twosidesna.org

Paper Packaging The Natural Choice

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

TWO SIDES
www.twosidesna.org

GOING PAPERLESS MAY NOT BE GREENER

Many companies are trying to measure to which they pose in digital communication, claiming that it's "greener" and will "save trees." Such claims ignore the growing environmental burden of downloading and the unique sustainability benefits of print and paper. They also fail to comply with established environmental marketing rules in the U.S. and Canada.¹¹

91% of U.S. consumers agree that print and paper are a sustainable way to communicate, while regularly produced, used and recycled.¹²

U.S. forests, which provide wood for making paper, paper-based packaging and many other products, have been growing by over 1,200 NFL football fields per day.¹³

Paper is recycled more than any other material in North America, and is made with a high percentage of renewable energy.¹⁴

61% of Americans and 58% of Canadians prefer to believe that "the Paperless - the Green" claim: are designed to cause harm.¹⁵

As a result of Two Sides' global and grassroots campaigns, over 500 leading companies have renewed misleading environmental claims about print and paper.¹⁶

Marketing claims can't be truthful and supported by core partner and reliable scientific evidence based on accepted standards.¹⁷

Deforestation is the permanent conversion of forests to other land use whether human-induced or not. Sustainable forest management aims to maximize the environmental, social and economic values of forests over time.¹⁸

North American managed forests provide many economic, environmental and social benefits.¹⁹

The vast majority of trees in the U.S. and Canada are used for lumber, not paper.²⁰

Two Sides North America is a non-profit initiative by companies in the graphic communications and paper-based packaging industry. We promote the sustainability of print and paper products and digital communication alternatives by providing verifiable information on why print and paper-based packaging are a sustainable, practical and attractive way to deliver value to our customers. Become a member today!
CONTACT US: www.twosidesna.org

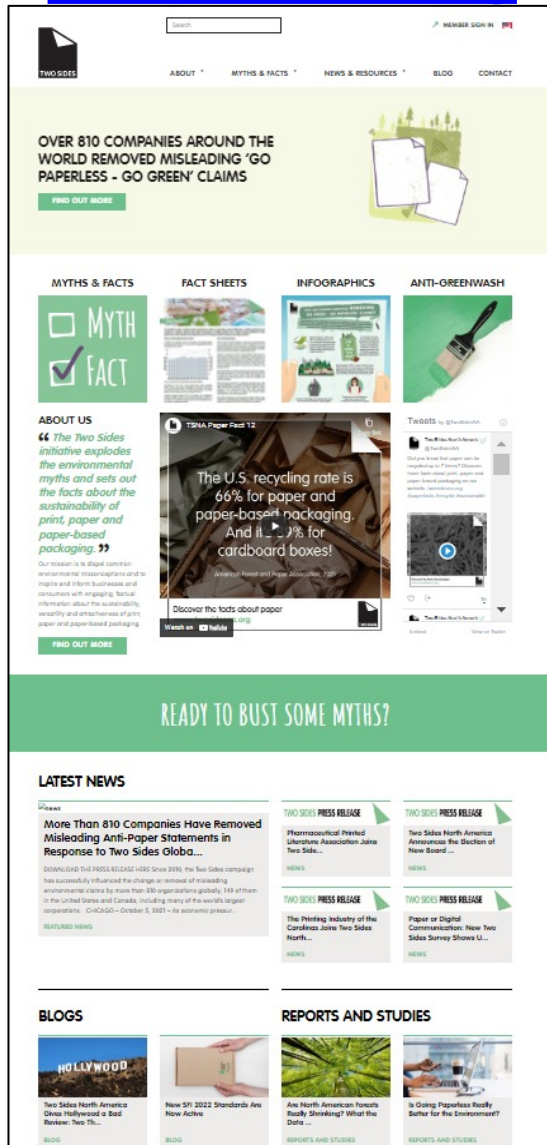
Print and Paper have a great environmental story to tell



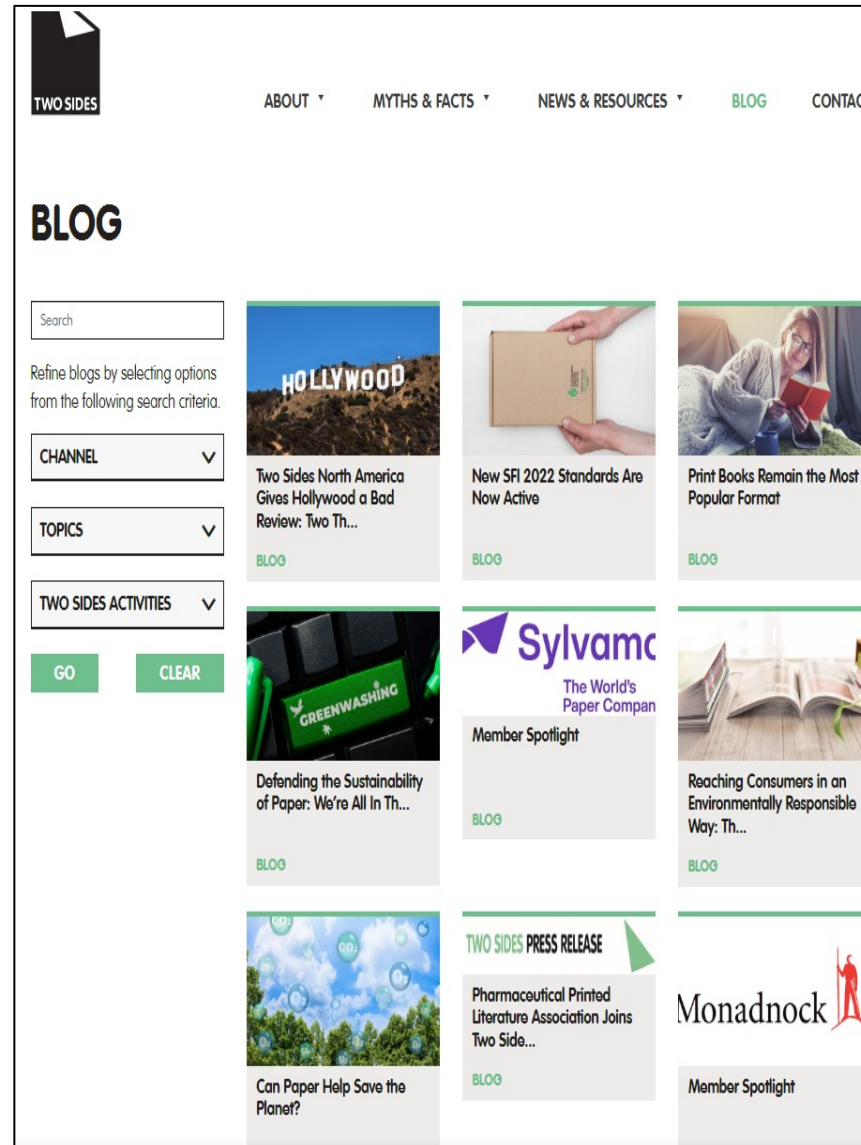
www.twosidesna.org

Promoting the sustainability of paper products

twosidesna.org



The homepage features a search bar, navigation menu (ABOUT, MYTHS & FACTS, NEWS & RESOURCES, BLOG, CONTACT), and a main banner with the headline "OVER 810 COMPANIES AROUND THE WORLD REMOVED MISLEADING 'GO PAPERLESS - GO GREEN' CLAIMS". Below this are sections for "MYTHS & FACTS", "FACT SHEETS", "INFOGRAPHICS", and "ANTI-GREENWASH". A featured article titled "The U.S. recycling rate is 66% for paper and paper-based packaging. And it's 7% for cardboard boxes!" is highlighted. The bottom section includes "LATEST NEWS", "BLOGS", and "REPORTS AND STUDIES".



The blog page has a search bar and a filter section with "CHANNEL", "TOPICS", and "TWO SIDES ACTIVITIES" dropdowns, along with "GO" and "CLEAR" buttons. The main content area displays a grid of blog posts with images and titles: "HOLLYWOOD" (Two Sides North America Gives Hollywood a Bad Review), "New SFI 2022 Standards Are Now Active", "Print Books Remain the Most Popular Format", "GREENWASHING" (Defending the Sustainability of Paper: We're All In Th...), "Sylvamc" (Member Spotlight), "Reaching Consumers in an Environmentally Responsible Way: Th...", "Can Paper Help Save the Planet?", "Pharmaceutical Printed Literature Association Joins Two Side...", and "Monadnock" (Member Spotlight).



/company/TwoSidesNA



@TwoSidesNA



@TwoSidesNorthAmerica

Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Making the Environmental Case for Paper

Everyone whose livelihood is connected to paper products has a stake in making the environmental case for paper



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Busting the Myths

The Myth

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



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

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 are expected to grow back

~ *UN Food and Agriculture Organization*

Primary Causes

Globally: Agriculture



US: Urban Development



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

What is sustainable forestry?

A land stewardship ethic that integrates the growing, harvesting and regeneration of trees with best management practices that protect:

- Soil, air and water quality
- Wildlife habitat and biodiversity
- Carbon storage
- Aesthetics
- Long term social and economic benefits that meet the needs of society, including the production of paper products



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- 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

- Tree harvesting in the U.S. occurs on less than 2% of forestland each year compared to the nearly 3% disturbed annually by natural events like insects, disease and fire.

~ U.S. Forest Service



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- 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



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- The production of paper products is a powerful economic engine and driving force in keeping U.S. lands forested.
- By providing a dependable market for responsibly grown fiber, the paper industry encourages landowners to manage their forestland instead of selling it for development or other non-forest uses.



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Busting the Myths

The Myth

Paper production is a major contributor to climate change because it requires high energy use that releases massive amounts of CO₂ into the atmosphere



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- U.S. pulp and paper industry generates more than half of the energy to power its operations from renewable, carbon neutral biomass.
~ AF&PA
- The U.S. pulp and paper industry emits only 0.5% of total U.S. greenhouse gas emissions (CO₂-e).
~ *U.S. EPA Greenhouse Gas Inventory*



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- The CO₂ released by burning biomass is part of the natural biogenic carbon cycle. The CO₂ that is released when biomass is burned for energy is the same CO₂ that was captured by the trees when they were growing.

~ NCASI

- U.S. forests and wood-based products capture and store roughly 14% of all CO₂ emissions annually.

~ U.S. EPA



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Busting the Myths

The Myth

The production of paper uses excessive amounts of water



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- Most of the water used in the papermaking process is not consumed by the process
- Process water is recycled 10X or more, then it's cleaned to meet strict water quality standards – and approximately **88% is returned** to the source
- About **1% of the water remains** in the manufactured products
- The rest evaporates back into the environment

~ NCASI



Print and Paper
have a great
environmental
story to tell

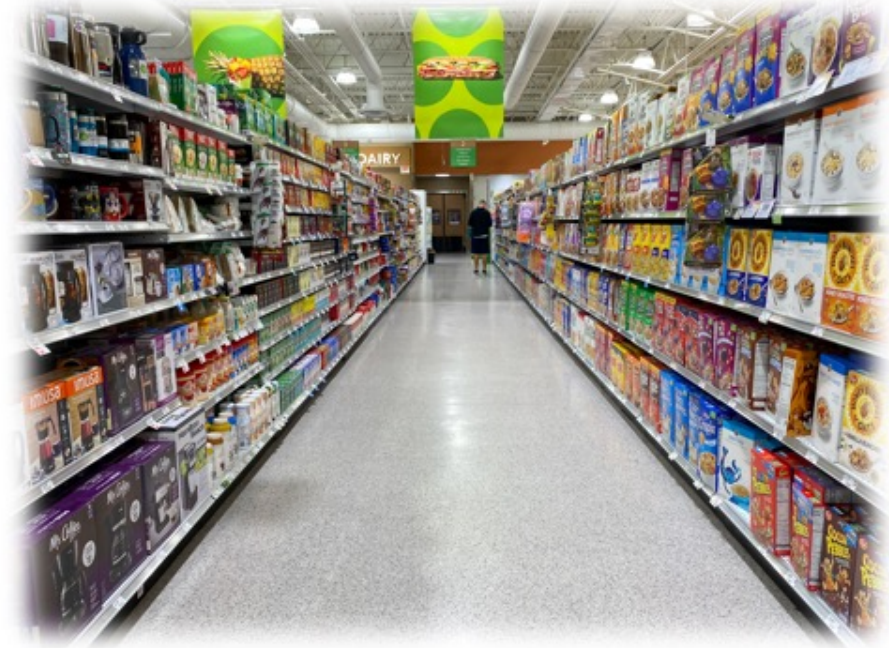


www.twosidesna.org

Busting the Myths

The Myth

Using paper products is wasteful
Most paper goes to landfills



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- 68.2% of paper and paper-based packaging in the U.S. is recycled, and that number jumps to 96.5% for corrugated boxes
- This compares with plastic at 9%, glass at 25% and metals at 34%

~ U.S. EPA



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- The U.S. paper industry has voluntarily invested billions of dollars in recycling infrastructure over the last 30 years
- This investment, combined with support from consumers, communities and businesses have made the recycling of paper and paper-based packaging an overwhelming environmental success story



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Busting the Myths

The Myth

To be truly sustainable, all paper and paper-based packaging must contain 100% recycled content



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- 100% recycled content in all paper products is a practical impossibility
- Recycled fiber must originate somewhere, and that origin is the virgin fiber that made up the paper product that got recycled in the first place.



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

- Recycled fibers can't be recycled indefinitely
- Paper and paper-based packaging can be recycled from 5 to 7 times
- Repeated collecting, cleaning and de-inking eventually weakens the fibers to the point they are no longer usable, so they must be replaced with virgin fiber



The Facts

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.



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Paper Contributes to the Circular Economy

The paper life cycle is already circular

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



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Busting the Myths

The Myth

Electronic communication is greener than print on paper



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

Raw Materials

- Electronic devices are made with finite raw materials that require environmentally intensive mining
~ Global E-Waste Monitor
- In 2023, North America will have 5 billion networked devices, up from 3 billion (40%) in 2018
~ Cisco Internet Annual Report



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

The Facts

Energy Use

- Electronic communication uses massive amounts of mostly fossil fuel energy to manufacture and operate devices and the massive server farms that support them
- Energy consumption required to power digital devices is increasing 9% annually
- The share of digital technologies in global GHG emissions increased by half between 2013 and 2018, from 2.5% to 3.7% of global emissions

~ The Shift Project



Print and Paper
have a great
environmental
story to tell



TWO SIDES
www.twosidesna.org

The Facts

Waste Generation

- The U.S. annually generates around 7 million metric tons of electronic waste
- Only 15% of this waste is recycled. The rest is landfilled, burned or dumped
- 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



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Your Paper Sustainability Elevator Speech



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org



Paper is made from an infinitely renewable resource – trees grown in sustainably managed forests – or from recycled paper



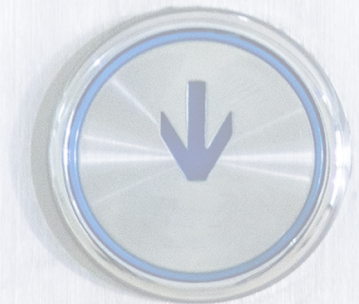
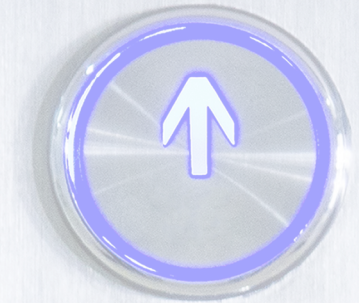
Harvesting trees to make paper products is not a cause of deforestation because the trees will grow back through natural regeneration or sustainable forest management



More than half of the manufacturing energy demand at U.S. paper mills is met using renewable, carbon-neutral energy, mostly biomass



Paper manufacturing is not a major cause of greenhouse gas emissions that contribute to climate change. Paper industry emissions total only 0.5% of total U.S. emissions.



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org



Nearly all the water used in paper manufacturing is cleaned to meet strict water quality standards and is returned to its source



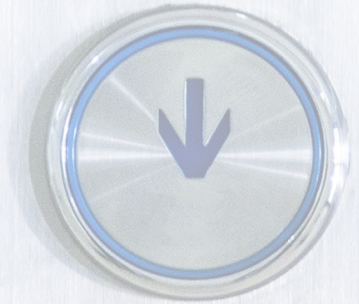
More than 2/3 of paper and paper-based packaging gets recycled ... more than any other material



The lifecycle of paper is already circular, minimizing resource use, carbon emissions and waste



Electronic communication is not greener than print on paper. While electronic communication has transformed our lives in many positive ways, it also has wide-ranging environmental impacts that continue to grow



Print and Paper
have a great
environmental
story to tell



www.twosidesna.org

Thank you!

- **Subscribe to Two Sides news and updates at www.twosidesna.org**
- **Follow us on social media:**
 - LinkedIn [/company/TwoSidesNA](https://www.linkedin.com/company/TwoSidesNA)
 - Twitter - [@TwoSidesNA](https://twitter.com/TwoSidesNA)
 - Facebook - [@TwoSidesNorthAmerica](https://www.facebook.com/TwoSidesNorthAmerica)
- **Contact us:**
 - info@twosidesna.org
 - 937-999-7729



www.twosidesna.org