RACHEL CARSON COUNCIL

Fact Sheet

Bamboo Toilet Paper and the Boreal Forest:

A conservation-focused look at non-wood fiber for tissue products

OVERVIEW

Toilet paper, a single-use product usually made from plant fiber, and **many conventional tissue products rely on virgin wood pulp**. Canada's Boreal forest is one of the world's major forest ecosystems, storing carbon, filtering air and water, regulating climate, and supporting wetlands and wildlife. Because toilet paper is used briefly and discarded, the use of fiber from high-value forest ecosystems—namely, boreal forests—raises serious conservation questions.

Bamboo is a non-wood fiber option: it is a fast-growing grass, can be made into pulp, and regenerates after harvesting. While not impact-free, bamboo toilet paper holds potential to scale as an alternative solution with responsible sourcing, processing, transportation, and non-conversion of natural forests. Other lower-impact options include recycled-content toilet paper and bidets.

WHY CONSIDER BAMBOO-BASED PAPER?

Wood-based toilet paper sources its tree fiber from the Boreal ecosystem, which is crucially important and is currently under threat.

The Boreal ecosystem spans hundreds of millions of acres and includes not only forests, but wetlands, lakes, rivers, peatlands, and habitat for mammals, fish, waterfowl, and migratory birds. American households and businesses use tissue products that are directly linked to forest degradation, according to publicly-available sourcing data and brand scorecards. NRDC's tissue scorecards, for example, evaluate toilet paper, paper towels, and facial tissue based on fiber source, recycled content, certification, bleaching, and whether fiber sourcing avoids deforestation and forest degradation.[1]

Bamboo is a grass already used in the paper and pulp industry.

Research reviews identify bamboo as a raw material for paper and pulp, with dozens of bamboo species used for this purpose.[2] From a lifecycle perspective (factoring in the full production process and not just the product), bamboo performs better than clear-cutting.[3]

Bamboo grows and renews quickly.

Some bamboo species can grow up to 1 meter per day and reach maturity within a few years, while many tree species used for wood fiber take decades to mature.[2,4]

Bamboo can regenerate after harvest.
Bamboo grows from rhizome-root systems, allowing repeated harvesting without killing the plant when managed properly.[2]

Bamboo root systems support soil and watershed functions.
Studies describe bamboo root systems as useful for soil stabilization, erosion control, land rehabilitation, and watershed protection.[4] There are even some US-based bamboo species (e.g. Rivercane) that hold cultural and functional significance in the Southeastern United States.[5]

Bamboo's sustainability depends on how it is sourced and processed.
Bamboo generally has lower land-use and climate impacts than forest fiber (though recycled fiber can perform even better). To remain effective, bamboo sourcing should avoid natural forest conversion and forest degradation.[6]

ENVIRONMENTAL IMPLICATIONS

From a conservation perspective, bamboo toilet paper is relevant because it can reduce reliance on **virgin wood fiber** for a product that is used once and discarded. Reducing pressure on forest fiber can help keep more carbon, wetlands, habitat, and water-regulation functions intact. For ecosystem protection, bamboo is most relevant when it is **responsibly sourced from existing bamboo production systems** rather than from plantations created by clearing natural forests. For climate and land-use considerations, bamboo's fast growth and regenerative harvesting are important advantages, but **full impacts still depend on manufacturing, bleaching, shipping distance, packaging, and end-of-life management.**

In practice, bamboo and recycled-content tissue are both alternatives to conventional virgin wood-based toilet paper; recycled fiber often has the lowest forest impact, while responsibly sourced bamboo can be a useful non-wood option.

WHERE TO FIND SUSTAINABLE TOILET PAPER OPTIONS

In Store

Retailers such as Trader Joe's, WholeFoods, and some major box stores.

Online

Several independent online-only companies sell sustainable paper, marked as "100% Recycled" or "100% Bamboo."

ENDNOTES

1. NRDC — The Issue with Tissue, https://www.nrdc.org/resources/issue-tissue
2. Ahmad et al. — "Bamboo for the Future: From Traditional Use to Industry 5.0 Applications", https://www.mdpi.com/2223-7747/14/19/3019
3. Duan et al. — "Bamboo Pulp as a Sustainable Alternative in China's Pulp Industry: Economic and Environmental Assessment," Environmental Impact Assessment Review 115 (August 2025): 1,5, https://doi.org/10.1016/j.eiar.2025.107966.
4. Patel et al. — "Sustainable bamboo: Technological innovations and patent insights for a greener future", https://www.sciencedirect.com/science/article/pii/S2773139125000060
5. National Park Service — "Rivercane: Our Native Bamboo," National Park Service, August 30, 2024, https://www.nps.gov/articles/000/rivercane.htm.
6. NRDC — The Issue with Tissue Scorecard Methodology
7. Natural Resources Canada — Boreal forest, https://natural-resources.canada.ca/forests-forestry/sustainable-forest-management/boreal-forest

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