DAYS FOR GIRLS

EXPLORING THE ENVIRONMENTAL FOOTPRINT OF PERIOD PRODUCTS

Introduction

When shopping for period products, we usually consider a handful of factors before making a purchase. What is comfortable? What is affordable? What is available at the store?

As people who menstruate, we can all agree that choice is essential. Everyone should be free to select products that best meet their personal needs, from physical to financial. But now, it is time to consider a larger, looming component of period product choice: environmental impact.

The production and usage of menstrual products sit at the cross-section of human development, gender, and environmental sustainability. It is a loaded conversation spanning numerous sub-issues, but a conversation increasingly worth having.

The full lifecycle of a menstrual product – **broken down into three primary stages** – tells us what is sustainable versus what contributes to climate change. At each stage of the life cycle, period products have different effects on the environment.

Understanding the environmental footprint of a menstrual product's lifecycle can help us make informed choices by considering menstrual products that are both personally and environmentally friendly.

Stage 1: Production

The full lifecycle of single-use products – material sourcing, refinement, production, packaging, distribution, usage, and disposal – contributes to deforestation and relies on fossil fuels.

High levels of energy, water, and synthetic chemicals are required to sustain production in factories and manufacturing plants. Raw material usage – including minerals, plastic, and more – is necessary to manufacture single-use products. However, as novel entities, their creation and usage are ecologically disruptive.

One of the most environmentally damaging activities on earth is plastic production, usage, and disposal. 93% of all plastic production relies on fossil fuels, and plastics are not biodegradable. Their disposal causes emissions and environmental damage, as they must be incinerated or recycled in landfills and oceans, harming wildlife, food, and water sources. The chemicals and microplastics emitted from plastic factories pollute the atmosphere, deteriorate air quality, and contaminate soil and water sources.

Despite growing concerns about plastic and microplastic pollution, global plastic production is actually increasing rather than slowing down. This includes the single-use menstrual products industry, which relies heavily on plastic. The **average single-use pad consists of approximately 90% plastic**, which is the equivalent of four disposable plastic bags. Single-use products emit approximately 3.3 tons of CO_2 throughout their lifecycle, beginning at production.

The development of reusable product options **also has environmental ramifications**. The production of cotton, a common material in reusable pads

and underwear, requires significant amounts of water and land and can contribute to water pollution. Menstrual cups are constructed of medical-grade silicone; silicone is a synthetic polymer created through an energy-intensive process, and it is not biodegradable.

Getting both single-use products and reusable products into the hands of consumers also **carries a substantial environmental impact**. This includes transporting single-use products from domestic factories, importing uncut cloth to manufacture reusable pads, amongst many other factors. In the United States, most manufactured goods are transported by truck, train, boat, or plane. According to the EPA, transportation – including heavy trucks and freight – is one of the largest contributors to carbon emissions.

Stage 2: Usage

Single-use menstrual products, namely disposable pads and tampons, are some of the most widely used products for menstrual management. They are also some of the most environmentally harmful, as single-use menstrual pads, tampons (in the core and often the applicator), and product packaging all contain a lot of plastic.

Both single-use pads and tampons are usually made of cotton, rayon (a synthetic material derived from wood pulp), and plastic, and their packaging is usually made of more plastic or cardboard (also derived from wood pulp). The volume of products and packaging a person uses in their lifetime is huge, and is damaging to the environment.

An estimated two billion people experience menstruation around the world. On average, a person who menstruates uses **5,000 to 15,000** single-use pads or tampons in their lifetime. Across 28 European countries, **49 billion single-use menstrual products** were used in one year.

The environmental impact of reusable products usage **is significantly lower** than that of single-use products. However, reusable options – particularly reusable pads and period underwear – require considerable water for washing. Menstrual cups also require small amounts of water and electricity for sanitation purposes.

Stage 3: Disposal

Continual usage of single-use products generates an enormous amount of waste.

The average person who menstruates creates between **250 to 300 pounds** of product waste and 4,000 pounds of packaging waste in their lifetime. The majority of waste is burned, flows into water systems, or ends up in landfills, where it takes **500 to 800 years** to break down. When burned, discarded products release toxic chemicals which harm environmental and human health.

Though some single-use products are marketed as recyclable, they are often **rejected in recycling facilities** and sent to landfills due to blood contamination. Low-to-middle-income countries usually have less infrastructure for waste management, and people who menstruate are frequently forced to discard products in fields, water bodies, latrines, or underground. There are no universally accepted and consistent waste management practices for single-use products, which further impedes their safe disposal.

What Can We Do?

Compared to single-use products, reusable options are less harmful to the environment.

From production to disposal, menstrual cups, period underwear, and washable pads have **lower environmental impacts** than single-use products. For example, a reusable cup produces only 0.4% of the plastic waste of single-use pads and 6% of the plastic waste of tampons.

By increasing the global usage of reusable products, demand for single-use products would decrease. This would lead to less natural resource usage, fossil fuel depletion, waste generation, disposal issues, and toxin emissions into the atmosphere. Conversely, increasing the demand for reusable menstrual products could enable greater product innovation and access models.

The Big Picture

Though this information can feel overwhelming, we should keep in mind two key points: **the importance of informed choice and the need for diverse menstrual products.**

By being aware of the environmental impacts of menstrual products, we can try to make more mindful decisions about the products we use. We can also include others in this conversation and help everyone who menstruates make an informed choice about their products.

On the other hand, diversifying sustainable menstrual product options and expanding their accessibility is essential for meeting menstrual health needs and reducing the threat of climate change. Over time, shifting to reusable or sustainable product options can mitigate the carbon footprint of single-use products.

Conclusion

Menstruation is a natural part of human life, and product accessibility is foundational for ensuring menstrual and human dignity.

There's no one-size-fits-all solution - individuals must make the best choices for their needs, and manufacturers bear primary responsibility for their products' climate impact. Companies and manufacturers can play a crucial role by investing in sustainable production practices, packaging choices, and creating products with a smaller environmental footprint.

With comprehensive information, we can make empowered decisions that align with our personal well-being and create an opportunity to reimagine the future of menstrual health management: a future that moves away from environmentally costly options and toward long-term sustainability.

Recommended Citation

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