

Sustainable Alternatives To Menstrual Hygiene Products To Reduce Carbon Footprint

Abstract

This research was carried out to learn about the state of menstrual hygiene in India, how pollution of the environment is caused by the use of 100% plastic products, and how to develop equally effective and sustainable alternatives.

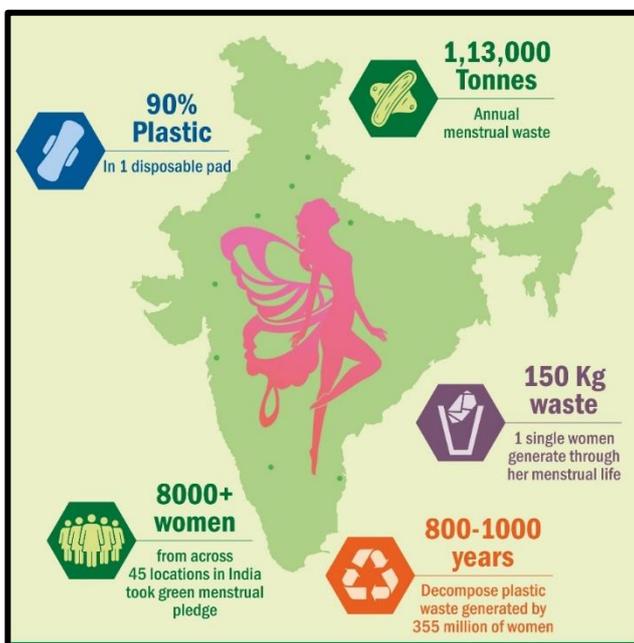
The practice of using alternative, eco-friendly menstrual products is referred to as sustainable menstruation.¹

Modern women appreciate the convenience and comfort of using synthetic sanitary pads, but many are unaware of the environmental and health risks that these sanitary pads pose.²



Introduction

The average woman uses roughly 11,000 tampons in her lifetime. The time it takes for a tampon to degrade in a landfill is centuries longer than the lifespan of the woman who used it.⁹ One year's worth of a regular sanitary pad has adverse effects on the climate with a carbon footprint of 5.3kg CO₂ equivalent to approximately 150kg of waste. 12% of 355 million menstruators of our country can afford regular menstrual pads and will dispose of about 433 million pads each month.¹¹

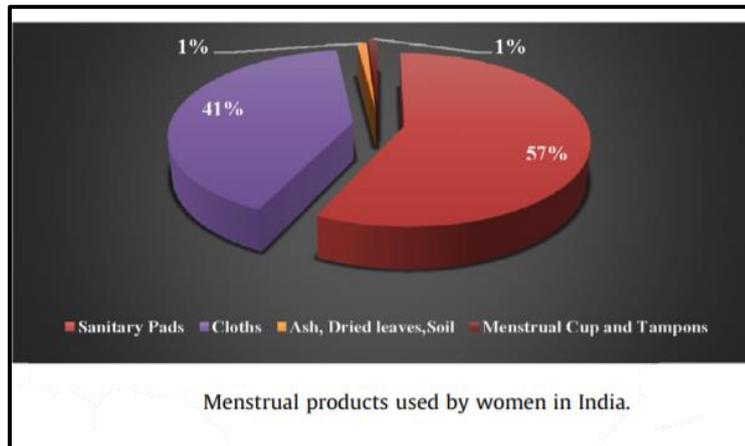


Objective:

Women manage their menstrual products differently at home and outside. They dispose of menstrual products in household waste and public toilets, flushing them without thinking about the consequences. It should be necessary to educate and make them aware of the environmental pollution and health risks associated with it.³ This would lead to a Swachh Bharat and in turn increase the HDI rank of our country.

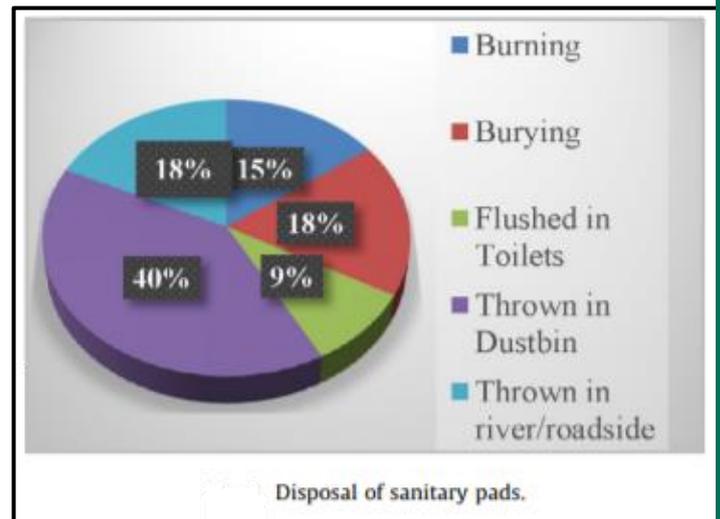
Current Issues

There are tons of myths and superstitions around menstruation around the world and more or less, they do disrespect women. Some communities believe that menstrual blood has the potential to be used for black magic and menstruators should only wash their stained cloth pads during the night when everyone else is asleep.¹



Urban ways of poor disposal:

In urban areas, people follow either solid waste management or flush the sanitary pads in toilets. Except for the plastic cover of a commercial sanitary pad, the menstrual waste decomposes easily in landfills. In rural areas, women dispose of their menstrual waste into pit latrines as burning and burial are difficult due to limited space.¹



Rural ways of poor disposal:

In rural India, 97% of women lack access to basic sanitary methods that allow them to stay clean throughout their menstrual cycle. Women use old fabric rags, husks, sand, or even ashes, which causes vaginal infections, which can lead to persistent Reproductive Tract Infections (RTIs), pelvic inflammatory disorders, childbirth problems, and cervical cancer.⁵

Menstruation significantly restricts rural women's mobility and educational opportunities. Most ladies postpone excessive physical activity to avoid excessive flow ruining their clothing. According to one study, menstruation is the leading cause of mortality for women in rural regions.⁶

Challenges in disposal

In many parts of India, the waste can be considered as two types i.e., wet waste and dry waste. Dry wastes will either burn or be left in landfills. The exposed sanitary materials cause serious health effects in some areas. The burning of these sanitary materials may produce toxic chemicals like dioxin.

A standard non-organic pad can take 500–800 years to degrade. Tampons biodegrade much faster, in around six months, because they are generally made of natural materials like cotton. However, many tampon brands now include plastic and are frequently packaged in plastic.¹⁰

Environmental effects of poor disposal:

People living alongside river banks throw menstrual waste into water bodies which contaminate them. Sanitary products soaked with the blood of an infected woman/girl may contain hepatitis and HIV viruses. The burning of inorganic material releases dioxins which are toxic and carcinogenic in nature.¹

Solutions I present:

Better Disposal Techniques:

Menstrual waste should not be disposed of along with the domestic waste. Special covered bins should be installed to handle the menstrual waste. Disposal bags should be provided by manufacturing companies with a colour indication for disposing of these products. These bags would be freely distributed among schools and institutions. By this, it should also be safe for rag pickers as it does not expose them to any disease-causing pathogens.¹

Incinerators:

If incinerators are used according to eco-friendly guidelines, they create less pollution. They should be operated at a certain specific temperature around 800°C so that they emit less harmful gasses.¹

Eco-friendly Alternatives to Menstrual Hygiene products

Currently, in India, there are several sustainable alternatives to commercial plastic products. These include:

1. Menstrual Cups
2. Reusable cloth pads
3. Banana Fibre pads
4. Bamboo Fibre pads
5. Water hyacinth pads

These above-mentioned are few of the most efficient and sustainable products, that're comfortable to use, affordable and least vulnerable to causing any RTIs due to "reuse".⁵

Effects of switching to eco-friendly alternatives:

1. Banana fibre pads, sold as Saathi, reuse banana wastes from many city markets in Gujarat and many other Indian states, they're repurposing what's considered as waste in many parts of the country. Banana cultivation is very widespread in our country hence this reduces waste, thus being an amazing sustainable alternative as well as equal or even better than commercial synthetic plastic pads.
2. Water hyacinth pads were invented by a group of Keralite students, uses the notorious aquatic weed, water hyacinth. This serves 2 purposes, both reviving aquatic body and great absorbent, its common occurrence as a weed also makes it very affordable. Therefore, it is a great alternative to commercial synthetic plastic pads.
3. Using eco-friendly methods helps in less pollution of the country's environment which could help raise the HDI of our country and in turn improve the remarks/ status of our country. Internationally India could potentially attract more tourists if it became cleaner and greener.
4. Companies like *Saathi* employ many rural women to manufacture their products, thus it would mean that we're supporting their small business and improve the living of those employees.

There are more!

Conclusion:

To conclude, using eco-friendly and sustainable alternatives to commercial menstrual products helps in many ways- help reducing environmental pollution, support women while overcoming the stigma associated around menstruation, support upcoming businesses to flourish therefore enabling them to provide their products for lower prices, empower women employees of these companies, etc. Finally, using sustainable alternatives could ultimately help in improving India's HDI rank.

Summary:

In today's society, both men and women have spoken out about menstrual health. Through videos, films and talks many people - including males, have become more informed and aware of the subject. Although sanitary napkins are useful and hygienic it creates a lot of plastic waste. The best solution to the issues related to sanitary pads is the use of menstrual cups, reusable cloth pads. These materials are made up of natural rubber or silicone rubber which can be easily inserted into the vagina. This can reduce the problems faced by using sanitary napkins and can be reused for five years or more.¹⁰

If taboos associated with menstruation can be tackled and public attitudes to disposables changed, then perhaps there is a chance of reducing the environmental impact that menstrual products have on our world.

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