Management of Menstrual Waste

Insights from India and Pakistan

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21/06/18
Maharashtra government to launch cheap sanitary pad scheme on March 8

Under the scheme, beneficiary girls will be given "Asmita Cards", while participating Self Help Groups (SHGs) will be entrusted with the task of the supply and sale of sanitary pads and counselling the girls and women.

In a first, Kerala to offer free sanitary napkins in 300 govt schools

Kerala chief minister Pinarayi Vijayan launched ‘She Pad’, a first-of-its-kind scheme in India to provide sanitary napkins for free in about 300 government schools.

Government launches biodegradable sanitary napkins, priced at Rs 2.50 per pad

An Urgent Challenge: Why India Needs To Tackle Its Menstrual Waste

Did you know a single woman can generate up to 125 kg of non-biodegradable waste through her menstruating years alone? Knowing this staggering fact, it doesn't take a genius to do the math to comprehend the waste implications of 355 million women who are generating so much of plastic waste that takes about 500-800 years to decompose.

TBI Blogs: Learn How a Village in UP Is Cleaning up Menstrual Waste Sustainably – With a Home-Based Solution!
Sanitary Napkin Waste Load

336 million menstruating women in India

36% Use other materials
64% Use sanitary pads

121 million use sanitary pads

x

1 billion pads per month

8 Per cycle

12 billion pads per year
Sanitary Napkin Waste Load

336 million menstruating women in India

64% use sanitary pads

36% use other materials

12 billion pads per month

1 billion pads per year

500 - 800 years to decompose
# Menstrual Hygiene Products in India

<table>
<thead>
<tr>
<th>Category</th>
<th>Non - compostable disposable</th>
<th>Compostable disposable</th>
<th>Reusable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td>Sanitary pads and panty liners with non-compostable raw materials like plastic barriers, super absorbent polymers</td>
<td>Sanitary pads with compostable raw materials</td>
<td>Cloth pads, Hybrid pads (with non cloth barrier) and Menstrual Cups</td>
</tr>
<tr>
<td>Life span</td>
<td>One time use 500-800 years to decompose</td>
<td>One time use 3-6 months to decompose</td>
<td>Multiple use Life span of 1-10 years</td>
</tr>
<tr>
<td>Cost</td>
<td>Multiple players; low cost versions available</td>
<td>Currently higher cost than non-compostable versions</td>
<td>One time cost maybe high; life cycle cost is usually lower than disposables.</td>
</tr>
<tr>
<td>Availability</td>
<td>Largest market share and reach</td>
<td>Limited</td>
<td>Limited</td>
</tr>
</tbody>
</table>
Menstrual Hygiene Products in India
Where are the 12 billion pads going?

- Thrown with routine waste: 28%
- Thrown in open: 28%
- Burial: 33%
- Open burning: 15%
Understanding Menstrual Waste Management

**Menstrual waste**

Blood and used menstrual absorbents, including cloth, disposable sanitary napkins, tampons, and other substances or materials

**Classification of menstrual waste**

The Indian Solid Waste Rules (2016) consider menstrual waste as solid waste and define it as sanitary waste.

Rules specify responsibilities of the waste generator, local authorities and gram panchayats and producers of sanitary products.

**Safe Management of Menstrual Waste**

Series of steps, treatment and disposal of used absorbents in a manner that does not cause harm to girls and women (the user) and to the environment (in terms of land, air and water sources).
Menstrual Waste as Solid Waste

Segregating menstrual waste from other domestic waste is critical for effective management.
Effective Treatment of Menstrual Waste

Reduce Waste

Use of reusable menstrual products
Effective Treatment of Menstrual Waste

Sterilize Waste

- Autoclave
- Chemical treatments

This waste will require further treatment and disposal post sterilization.
Effective Treatment of Menstrual Waste

Transform waste

Compost

Incinerate

Recycle
Incinerator Technologies

Small-scale incinerator

Large-scale incinerator
Central/biomedical

Waste to energy incinerator
Incinerator Technologies

Not all incinerators are safe - for health and the environment.

Inefficient, incomplete burning

Dioxins
Furans
Incinerator Technologies

Considerations selection & use

- Type, composition, volume of product disposed
- Setting for use and placement of incinerator
- Minimum and maximum burning temperatures
- Adherence to design principles
- Adherence to standards for emissions
- Operations and maintenance
- Cost

Small-scale incinerator

Large-scale incinerator

Central/biomedical

Waste to energy incinerator
Insights from Pakistan
Assessment of 10 school incinerators in Punjab

Assessment of operational and technical aspects. Based on international and national standard guidelines recommendations

- Include a ‘warm up’ process
- Address sensitivity around handling of waste
- Estimate the amount of menstrual waste expected to be generated to determine size of chamber and an appropriate burning schedule.
- Design disposal chute from toilet block to ensure that smoke does not escape into the toilet.
- keep length of chimney should be at least 4 metres
- Place incinerator 30m away from classrooms.
- Develop Standard Operating Procedures, including use of personal protective equipment
- Operate incinerator after school hours and by trained operator.

Improvements to the design may seem the most concrete for further scale up, but improvements around safety, operations, maintenance and training are essential to ensuring the best use of the incinerators.
## Linking Products & Waste Management Solutions

<table>
<thead>
<tr>
<th>MENSTRUAL HYGIENE ABSORBENT</th>
<th>Details</th>
<th>THROWN IN OPEN, LATRINE, SHALLOW BURIAL</th>
<th>LANDFILL</th>
<th>DEEP BURIAL COMPOSTING BIO-DIGESTERS</th>
<th>CHEMICAL TREATMENT AND AUTOCLAVE</th>
<th>RECYCLING</th>
<th>MATKA/TERRACOTTA/CEMENT/ BHATTIS BRICK/TIN</th>
<th>ELECTRIC</th>
<th>WASTE TO ENERGY</th>
<th>BIO-MEDICAL, CENTRAL FACILITY</th>
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<tbody>
<tr>
<td>CLOTH AND HYBRID PADS (W/W OUT INSERT)</td>
<td>Cotton</td>
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<td>Synthetic/ microfiber</td>
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<td>With PUL*</td>
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<td>MENSTRUAL CUPS</td>
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<tr>
<td>SANITARY NAPKINS AND PANTY LINERS</td>
<td>Cellulose based w/plastic barrier</td>
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<td>Cellulose based w/plastic barrier + SAP*</td>
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<td>Tampons</td>
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</tr>
<tr>
<td>COMPOSTABLE SANITARY NAPKINS</td>
<td>All components compostable</td>
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Effective Implementation
Comprehensive Programming

IEC strategy

INDICATORS
Monitoring and Evaluation

Capacity building

Awareness and Gender Equitable Norms
Access
Use
Menstrual Waste Management
Disposal
Treatment
Evidence and Action Gaps

Evidence gaps

• Safety, appropriateness and acceptability of current waste management solutions - incinerators
• Technology solutions for safe, effective menstrual waste management

Action gaps

• Informing government procurement of menstrual hygiene products and incinerators
• Implementation of menstrual waste management strategy as a part of solid liquid waste management