What is Menstrual Hygiene Management?

Menstrual hygiene management (MHM) implies that:

1. Women and girls use a clean menstrual management material to absorb and collect blood;
2. that can be changed in privacy, as often as necessary for the duration of the period;
3. using soap and water for washing the body as required;
4. having access to facilities (e.g., dustbin, newspaper to wrap, safe incinerator) to dispose of used menstrual management materials.

The use of menstrual hygiene products, specifically disposable sanitary pads, has increased significantly over the past 10 years.

• In 2011, the AC Neilsen and PLAN India study reported that only 12% of women and girls in India used sanitary pads. The National Family and Health Survey 4 (2015-16) found that in rural India alone, 48% of young women aged 15-24 years have used sanitary pads.

• Various state governments (e.g., Bihar, Kerala, Odisha, Chhattisgarh and Telangana) have launched schemes for free distribution of sanitary pads to school girls, while other state governments have ensured that their MHM programs include a component of sanitary pads distribution.

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Periods are normal and healthy, yet many girls across rural and urban India struggle to manage this monthly occurrence. When a girl faces obstacles in managing her menses in a healthy way, she is at risk for infection, her self-esteem and self-confidence suffer, she may remain absent from school during her period, or worse still, drop out of school altogether upon reaching puberty. Over time, these negative effects add up, preventing a young girl from achieving her full potential and having a healthy, productive life.

Menstrual hygiene interventions in India should build awareness on sustainable menstrual hygiene practices. This will have implications for health of users, safety and dignity of sanitation workers and the environment.

Menstrual hygiene products can be broadly classified into:

1. **Disposable products**: single use products
   - Disposable sanitary pads and tampons
   - Compostable sanitary pads

2. **Reusable products**: products that can be used multiple times
   - Sanitary pads made of different materials (e.g., cotton, microfibre)
   - Menstrual cups

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3 National Family Health Survey 4 (2015-16)  
Let's examine the menstrual hygiene product landscape available in India:

<table>
<thead>
<tr>
<th>Product Category</th>
<th>DISPOSABLE</th>
<th>COMPOSTABLE DISPOSABLE</th>
<th>REUSABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Sanitary pads</td>
<td>Sanitary pads made with natural fibres that lend themselves to composting</td>
<td>Cloth pads</td>
</tr>
<tr>
<td></td>
<td>Tampons</td>
<td></td>
<td>Menstrual underwear</td>
</tr>
<tr>
<td>Primary Raw Materials</td>
<td>Absorbent core: Wood pulp</td>
<td>Absorbent core: Wood pulp, banana fibre, pine or other absorbent fibres</td>
<td>Top sheet and absorbent core: Cotton, polyester and other absorbent fabrics</td>
</tr>
<tr>
<td></td>
<td>Additional non-compostable absorbents: Super absorbent polymers (SAP), typically sodium polyacrylate gel</td>
<td>Top sheet: Leak proof layer – polyethylene or compostable alternatives</td>
<td>Leak proof layer: Typically polyurethane laminate (PUL)</td>
</tr>
<tr>
<td></td>
<td>Top sheet: Polypropylene based non-woven fabric</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leak proof layer: Polyethylene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Impact</td>
<td>500-800 years (estimated)</td>
<td>6-12 months to compost (estimated)</td>
<td>Reusable for 12-24 months</td>
</tr>
<tr>
<td>Market Availability</td>
<td>High</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>Quality Standards</td>
<td>Should adhere to IS 5404</td>
<td>No national standards; claims of compostability should be tested against ISO 17088 or other comparable standards</td>
<td>No national standards; field testing results should be referenced for acceptability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No national standards; field testing results should be referenced for acceptability</td>
<td>No national standards; suggested to be treated as low grade medical device and can be tested against US FDA, Japanese or EU benchmarks</td>
</tr>
</tbody>
</table>

Under the National and State Rural Livelihood Missions, various government schemes have supported local manufacturing of sanitary pads through small-scale production units. Entrepreneurs are constantly experimenting to make menstrual hygiene materials environment friendly. There is no clear and agreed upon definition of environment or eco-friendly pads, and as a result, several small companies now make *bio-degradable* pads. A few companies have also extended the concept of eco-friendly pads to make compostable pads from natural fibres. Other companies and organisations promote reusable products like cloth pads and menstrual cups made of various types of materials.
# Deep-dive into each product category

## DISPOSABLE/THROW AWAY SANITARY PADS

### Product description
- Sanitary pads, panty liners, tampons
- Include regular sanitary pads, super absorbent sanitary pads (super thin), and maternity pads

### Characteristics
- Worn outside the body (pads), or inserted vaginally (only tampons)
- Sanitary pads require underwear to keep the product in place
- Middle absorbent layer made of cellulosic material (sometimes mixed with super absorbent polymers to enhance absorption and make the pad thin) and outer layers made of plastic
- The upper layer may be made of woven or non-woven materials, while the lower leak proof layer is made of plastic and glue

### Duration of use
- Must be changed every 4-6 hours
- Some product variants suggest use for up to 12 hours
- Pads may disintegrate on extended use, users may be prone to leakage and staining

### Use
- One time use products
- Cannot be washed and reused

### Disposal
- Need to be discarded after use
- Most products do not decompose easily due to the plastic casings and use of super absorbent polymers

### Cost
- Great variation in cost with both low and high end products available

### Availability
- Retail outlets
- Local shops
- Self-help groups/decentralised small scale production units
- Frontline health workers
- Institutions: schools, anganwadis, health care facilities

### Advantage
- Available in many parts of the country
- Low cost product variants available
- Free distribution or sale at highly subsidised rates makes sanitary pads more affordable

### Disadvantages
- Limited disposal and waste management solutions for one time use pads
- Quality of pads may be questionable as many products may not adhere to quality standards
- Use of a single pad may be extended beyond a reasonable time, placing users at risk of leakage, irritation and even infections
- Toxic shock syndrome (TSS) is a severe complication of certain bacterial infection, often associated with tampons because the blood that accumulates in a tampon can serve as a culture medium for the bacteria. Using a tampon for longer than recommended time can increase the risk of TSS
# DISPOSABLE, COMPOSTABLE SANITARY PADS

<table>
<thead>
<tr>
<th><strong>Product description</strong></th>
<th>Sanitary pads made of natural fibers (e.g., banana fiber) that absorb menstrual blood</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristics</strong></td>
<td>• Worn outside the body&lt;br&gt;• Sanitary pads require underwear to keep the product in place&lt;br&gt;• Middle absorbent layer made of cellulosic material that are made with natural fibers that compost easily. Outer casings are made with bio-plastics&lt;br&gt;• The upper layer may be made of woven or non-woven material, the lower leak proof layer is made of bio-plastics and glue</td>
</tr>
<tr>
<td><strong>Duration of use</strong></td>
<td>• Must be changed every 4-6 hours&lt;br&gt;• Pads may disintegrate on extended use, users may be prone to leakage and staining</td>
</tr>
<tr>
<td><strong>Use</strong></td>
<td>• One time use products&lt;br&gt;• Cannot be washed and reused</td>
</tr>
<tr>
<td><strong>Disposal</strong></td>
<td>• Need to be discarded after use&lt;br&gt;• Can be composted in compost pits</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>• Some variation in cost between the products available in India&lt;br&gt;• Tend to be more expensive than regular sanitary pads</td>
</tr>
<tr>
<td><strong>Availability</strong></td>
<td>• Production units and related retail points for such products&lt;br&gt;• Online portals&lt;br&gt;• Through organisations that may make such products available</td>
</tr>
<tr>
<td><strong>Advantage</strong></td>
<td>• Pads compost more easily than other disposable pads, causing less waste and environmental pollution&lt;br&gt;• New developments taking place to manufacture low cost, high quality and fully compostable products&lt;br&gt;• Some products in this category have acquired quality certification from recognised bodies/agencies</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
<td>• Limited availability&lt;br&gt;• Higher cost&lt;br&gt;• Many pads stating they are eco-friendly and bio-degradable with little proof or certification of quality and compostability&lt;br&gt;• Quality of pads may be questionable as products quality standards do not exist for this range of products&lt;br&gt;• Use of a single pad may be extended beyond a reasonable time, placing users at risk of leakage, irritation and even infections</td>
</tr>
</tbody>
</table>
| **Product description** | Sanitary pads made of cloth (cotton, micro-fiber, antimicrobial treated)  
Menstrual underwear |
|------------------------|---------------------------------------------------------------------|
| **Characteristics**     | Worn outside the body  
Cloth pads require underwear to keep the product in place  
Made of cloth, often with a leak proof layer at the bottom  
Product variants include pads made of cotton cloth, micro-fiber, cloth with anti-microbial treatment  
Products may have wings with plastic buttons to firmly attach product to underwear  
Some products are designed to be worn without underwear (have waste straps to secure product)  
Some products allow the absorbent core material to be changed while the cloth casing remains for longer use  
Menstrual underwear are designed with adequate padding and leak proof layer that do not require any additional pad to be worn |
| **Duration of use**     | Must be changed every 4-6 hours  
Users may experience leakage and staining on extended use |
| **Use**                | Products can be used multiple times  
Life span may differ. Some products state usage for up to 100 washes, some specify use for 2-5 years, some specify use according to number of menstrual cycles  
Products need to be soaked and washed thoroughly in water at room temperature, using mild soap (not anti-septic solutions), dried well, and stored in a clean, dry space  
While most reusable cloth pads need to be dried in the sun, some products can be dried in the shade |
| **Disposal**           | Need to be discarded at the end of their life span |
| **Cost**               | Some variation in cost between the products available in India  
Tend to be more expensive that regular sanitary pads |
| **Availability**       | Production units and related retail points for such products  
Online portals  
Through organisations that may make such products available |
| **Advantage**          | Reduce waste load  
Some product variants are easy to wash, dry and store  
Some products have anti-microbial properties  
Many reusable products have desirable qualities such as leak proof layer and wings that protect against leakage and staining  
Some products have acquired quality certification from recognised agencies |
| **Disadvantages**      | Limited availability  
More expensive than disposable sanitary pads  
Quality of pads may be questionable as products quality standards do not exist for this range of products  
Use of a single pad may be extended beyond a reasonable time, placing users at risk of leakage, irritation and even infections |
<table>
<thead>
<tr>
<th><strong>MENSTRUAL CUPS (REUSABLE)</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Product description</strong></th>
<th>Products that collect blood (instead of absorbing blood)</th>
</tr>
</thead>
</table>

| **Characteristics** | • Made of medical grade silicon  
• Inserted vaginally, not worn outside the body  
• Cups need to be removed and collected blood must be thrown out |
|---------------------|-------------------------------------------------------------|

| **Duration of use** | • Must be taken out every 6-8 hours to discard collected blood  
• Users may experience leakage and staining on extended use |
|---------------------|-------------------------------------------------------------|

| **Use** | • A single cup can be used for up to 10 years  
• During menstruation, cup can be emptied, washed well with clean water and reinserted  
• After a menstrual cycle, cup needs to be sterilised and kept in a dry clean space |
|----------|------------------------------------------------------------------------------------------------|

| **Disposal** | • A cup last for up to 10 years  
• Only blood collected needs to be disposed in toilet |
|--------------|------------------------------------------------------------------------------------------------|

| **Cost** | • Some variation in cost between the products available in India  
• Most expensive of all menstrual hygiene products, but life time costs tend to be lower given that these products have the longest life span compared to all other available products |
|-----------|------------------------------------------------------------------------------------------------|

| **Availability** | • Mostly through online portals  
• In retail outlets |
|------------------|-------------------------------------------------------------|

| **Advantage** | • Minimal waste generated  
• Some products have acquired quality certification from recognised agencies |
|----------------|--------------------------------------------------------------------------|

| **Disadvantages** | • Limited availability  
• Higher cost  
• Need to be inserted vaginally – may not be acceptable to many users  
• Quality of cups may be questionable as products quality standards do not exist for this range of products in India  
• Unclean cups or cups worn for over 12 hours are harmful and may be associated with infections. In extreme cases, toxic shock syndrome may occur |
|-------------------|--------------------------------------------------------------------------|
Consumers usually are unaware of what happens to their used menstrual products.

Though disposable sanitary pads have become the most popular choice, menstrual product landscape is wider than that.

Menstrual hygiene products use and disposal landscape in India

Type of menstrual absorbent used

- **45%** Commercial Pads
- **50%** Cloth
- **13%** Cloth + Pad
- **4%** Cotton/home made disposables
- **6%** Underwear only

Menstrual hygiene products use and disposal landscape in India:

- **45%** Use routine waste disposal method/dustbin
- **23%** Throw away in open spaces, drains, rivers, wells, lakes, roadside...
- **15%** Dispose by burning
- **25%** Dispose by burying
- **9%** Throw in toilets (flushing or pit latrine)

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5 van Eijk et al (2016). Menstrual hygiene management among adolescent girls in India: a systematic review and meta-analysis
A three-way comparative analysis on waste created in case of a girl using Disposable Pads or Reusable Pads or Menstrual Cups throughout her life*

<table>
<thead>
<tr>
<th></th>
<th>DISPOSABLE PADS</th>
<th>REUSABLE CLOTH PADS</th>
<th>REUSABLE MENSTRUAL CUPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of pads used</td>
<td>3</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>per day</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One time use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of pads</td>
<td>6120 (3 x 5 x 12 x 34)</td>
<td>136 (6 x 34/1.5)</td>
<td>7 (34/5) (6.8 ≈ 7)</td>
</tr>
<tr>
<td>generated in a life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of cups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>used per cycle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of cups</td>
<td>5</td>
<td>12</td>
<td>34</td>
</tr>
<tr>
<td>generated in a life</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spent menstruating</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Based on the following estimates:

Number of years spent menstruating: 34

Number of cycles per year: 12

Number of pads used per day: 3

Number of reusable pads used per cycle: 6

Average life of a reusable pad: 18 months (1.5 years)

Number of cups used per cycle: 1

Average life of 1 cup: 5 years

Number of pads generated in a life time: 6120

Number of reusable pads generated in a life time: 136

Number of cups generated in a life time: 7
To a great extent, menstrual hygiene products, their disposal and appropriate waste management solutions for menstrual hygiene products are addressed in silo. **However, the choice of products is deeply intertwined with waste management solutions.** What makes the management of menstrual waste challenging is the composition of products used and discarded. Many sanitary pad varieties are made of cellulose, super absorbent polymers (SAP), plastic covering, and adhesives/glue. Many of these components do not decompose easily and remain in the environment (polluting soil and water sources). Further, when these pads are burned (in the open or in incinerators), they release toxic chemicals (dioxins and furans that are known carcinogens) that are harmful for health. In addition, anecdotal evidence suggest that when girls lack disposal facilities, they may use pads for a longer duration than recommended resulting in unhygienic use. This in turn, places them at risk for reproductive tract infections.

A universally agreed way to effectively and safely deal with menstrual waste does not exist in India.
Informed choice is the ability to choose a menstrual hygiene product drawing upon comprehensive and unbiased information on the product range, including their relative benefits and disadvantages, so that it meets their personal, reproductive health and socio-economic needs and realities.

Informed product choice is a tool to increase awareness about menstrual health and hygiene, even if the product range is not easily available. Once available, access is dependent on physical reach, ability to pay, and user preferences. Once accessed, hygienic use is dependent upon awareness, social support, and access to appropriate WASH facilities that are private and safe.

Awareness generation on menstrual hygiene management has typically focused on use of just sanitary pads.

A vast majority of products reaching women and girls through government and large manufacturers are made primarily of non-compostable materials – materials that take hundreds of years to degrade.

Apart from the amount of waste generated, when women and girls do not have easy access to disposal options, they tend to wear a pad for much longer than they should, putting them at risk for unnecessary and avoidable discomfort and health issues.

We need better solutions that minimise health risks and allow us to deal with all waste effectively.

Of 336 million women and girls experiencing menstruation in India, it can be estimated that approximately 121 million women and girls are currently using locally or commercially produced disposable sanitary napkins.

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Call to Action
Women and Girls

While selecting and using products:
• Identify menstrual hygiene products (disposable and reusable) available in the market (in retail outlets, online, with entrepreneurs). Look for certification of quality.
• Choose appropriate menstrual hygiene product depending on your need, comfort, availability, cost, ease of disposal and environmental implications
• Try different products and select what suits you best
• Try a mixed use approach for comfort and to minimise waste: If sanitary pads suit you best, use them on the heavy days and use a reusable product on lighter days
• Bathe daily and wash before changing products
• Change products at least every six hours
• Talk to other women and girls and educate them about product choices available in the market and create awareness regarding sustainable menstrual products

When disposing products:
• Wrap disposable pads or tampons in paper before disposing
• Throw used menstrual hygiene products in a dustbin. Try to segregate menstrual waste from other household waste, and encourage collection of segregated waste. Do not flush used products down the toilet, burn them in the open or bury shallow pits

• In your office space or housing complex, discuss and decide ways to mark and wrap menstrual waste in a way that waste pickers/segregators does not directly come in contact with your used products.

Demand the following from manufacturers:
• Innovate to make wider range of safe, hygienic and sustainable products available
• Invest in and carry out research and development for products that are safe and have the least environmental impact
• Ensure greater market access to products through different channels (formal and informal)
• Design and implement advertising campaigns to emphasize awareness about menstruation, menstrual hygiene, hygienic use, alternate product choice and their appropriate disposal

Demand the following from policy makers:
• Spread education/ awareness on menstrual hygiene management with information on the complete basket of products available
• Facilitate user choice by making different categories of products available, accessible and affordable to women and girls
• Provide disposable and reusable options based on women’s needs, socio-economic and geographic contexts and supply chain considerations in that geography
• Support access to and use of hygienic products by creating an enabling environment in terms of infrastructure (access to water, privacy, social norms, disposal facilities), product access and social supports.
Green the Red campaign

A volunteer collective of individual eco-warriors and eco-retailers passionate about changing the menstrual hygiene landscape in India by advocating and building awareness on sustainable menstrual hygiene practices and management solutions that are safe for our bodies, safe for the environment, safe for the sanitation workers and reduce the burden on our waste disposal systems. Their aim is to improve women's health and ultimately public health through sustainable menstrual practices.

Green the Red is a campaign that was launched at Bengaluru Pinkathon in 2017. The campaign promotes awareness on the reusable options for menstrual hygiene management. To know more:

www.greenthered.in/about

The Red Dot Campaign

The Red Dot Campaign was initiated in collaboration with the Pune Municipal Corporation to convince Pune residents to wrap and mark their sanitary waste prior to disposal, and to give SWaCH members experience in self-advocacy. SWaCH (Solid Waste Collection and Handling) is a waste picket cooperative in Pune. Seven months into the campaign, a sample of 75 trained SWaCH leaders (serving 15,000 households daily) reported that 50% of their customers were wrapping and marking their sanitary waste, compared with 0% before the campaign began. They also reported that 75% of customers were informing them when sanitary waste was present in their trash can, compared with 0% before. These numbers are likely lower in areas serviced by SWaCH leaders who have not yet received leadership training, emphasizing the benefit of leadership training for waste pickers alongside campaigns. SWaCH continues to expand trainings for both their members and the public.

To know more:

www.pushingforpeacepune.weebly.com/red-dot-campaign.html