Menstrual Hygiene is a vital, but often overlooked, component of sanitation. Menstrual Hygiene Management (MHM) guidelines were released by the Ministry of Drinking Water and Sanitation in 2015.

Managing menstrual wastes

Menstruation is a normal physiological phenomenon, yet it is surrounded by taboos, myths and stereotypes that make it challenging for girls and women to manage their monthly periods in a safe and hygienic way. Poor menstrual hygiene makes girls and women susceptible to reproductive tract infections (RTIs), stress, anxiety, and gender-based violence. It also contributes to absenteeism from school and the workplace.

As a consequence of government, private sector, and NGO efforts to make sanitary napkins more available, an increasing number of girls and women are now using disposable non-biodegradable sanitary napkins. The National Family and Health Survey-4 (NHFS-4) reported that 58% of women in the age group of 15–24 years used a hygienic method of menstrual protection, i.e., sanitary napkins. However, while sanitary napkins may offer a hygienic option for girls and women their disposal is an increasing concern.

Socio-cultural norms affect the three pillars of menstrual hygiene

- Menstrual hygiene education and awareness
- Water, sanitation, hygiene and disposal facilities
- Safe menstrual hygiene products

Adolescent girls
Menstrual Waste Load in India

An increasing number of women and girls in India are using disposable sanitary napkins. However, in a culture of silence, not all know how to use such pads safely and the impact of their disposal on the environment is poorly understood.

An estimated 36% of females within the reproductive age in India use sanitary napkins.

336 million menstruating women

36% =

121 million

64%

use sanitary pads

= 1 billion pads per month

Per cycle

12 billion pads per year

Use other materials

Use Sanitary Pads

Where are the 12 billion pads being disposed of?

- 28% THROWN WITH ROUTINE WASTE
- 28% THROWN IN OPEN
- 33% BURIAL
- 28% OPEN BURNING

Did you Know?

- Menstrual waste is blood, bloody tissues and used menstrual absorbents (cloth, sanitary napkins and other materials used to absorb menstrual blood)
- Solid Waste Management Rules (SWM 2016) consider menstrual waste as sanitary waste under solid waste. Rules specify the responsibilities of users, GPs and manufacturers.
- Safe Menstrual Waste Management should consider the following steps to ensure environment friendly procedures for disposal - [Segregation - Collection - Transportation - Treatment]

Informed Product Choice for Appropriate Menstrual Waste Management

Informed choice is the ability of a girl or woman to CHOOSE a menstrual hygiene product using unbiased and comprehensive information on all types of menstrual hygiene products, so that it best satisfies her personal, reproductive health and socio-economic needs. Women need to understand the advantages and disadvantages of products for menstrual management. Waste management solutions must reflect the quantity and type of menstrual hygiene products being used.
Many sanitary pads are manufactured using materials such as super-absorbent polymers (SAP), plastic, glue, etc, which may take up to 500 to 800 years to decompose.

SAPs allow sanitary pads to absorb and retain 30 or more times their weight in fluid, causing blockages in sanitation systems. SAPs do not allow the, otherwise compostable, absorbent core to degrade either.

When large amounts of non-compostable waste ends up in fields and water bodies, it can cause long-term deterioration of water and soil quality.

**Options for Menstrual Waste Management**

Waste management solutions according to type of products being used or promoted:

- **Disposables**
  - Non-compostable
  - Sanitary pads with SAP
  - Sanitary pads without SAP

- **Compostable sanitaray pads**

- **Reusable**
  - Cloth based sanitary pads
  - Menstrual cups

- **Bio-medical Incinerators**
- **Large scale recycling** (not taken off yet)
- **Small scale incineration**
- **Composting**

*Runs: application unknown, need large volumes of waste to be collected and transported, not visible in the immediate future.
Menstrual Waste Load in India

**SMALL-SCALE INCINERATION**

- Incineration involves high temperature combustion converting waste into gases and ash.
- India uses a range of small scale incinerators (tin, matkas, brick and electrical) which differ in capacity/quality/emission control.
- Incineration can be used at community or institutional level.
- Appropriate for sanitary napkins without SAP, certified compostable and cloth pads.
- Gases are released to the atmosphere after emission control measures; ash can be disposed of in designated ash pits or landfills.
- When incineration occurs in unsafe conditions, hazardous gases may be released.
- The design should account for the number of users and volume of waste.
- Should be located outside toilets and away from student areas (schools and hostels).
- Should be constructed with appropriate materials, single/dual chamber and stack of appropriate height to minimize gases.
- Should meet emission standards of Central and State Pollution Control Boards.
- O&M roles and processes should be assigned: who will operate/when and how will ash be removed/disposed of?

**COMPOSTING**

- Composting is a process of complete degradation by biological processes yielding carbon dioxide, water and inorganic compounds in a defined period of time, without visible, distinguishable or toxic residue.
- Employs regular compost pits, bio-digesters, vermi-composting.
- Appropriate for sanitary napkins without SAP, certified compostable pads and cloth pads.
- Can be undertaken at household, community or institutional levels.
- Pits/digester dimensions must be appropriate for the amount of waste. Can be covered with a sheet to stop excessive water and trap the heat for faster composting. Organic materials need to be added to facilitate decomposition.
- Plastic is bio-degradable but NOT compostable.
- Products claiming compostability should be tested according to parameters being developed by Bureau of Indian Standards (BIS) (as Annexure to IS 5405) or ISO 17088.