



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

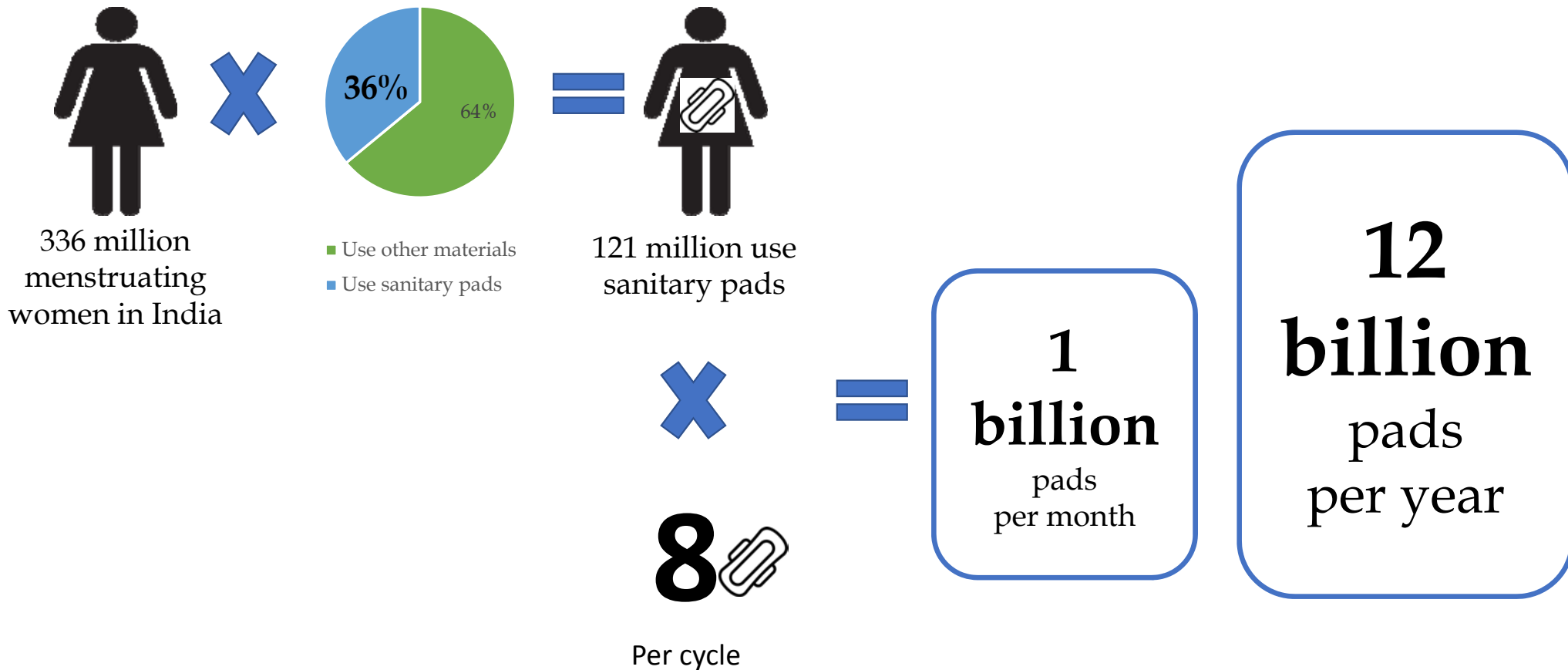
Government launches biodegradable sanitary napkins, priced at Rs 2.50 per pad

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

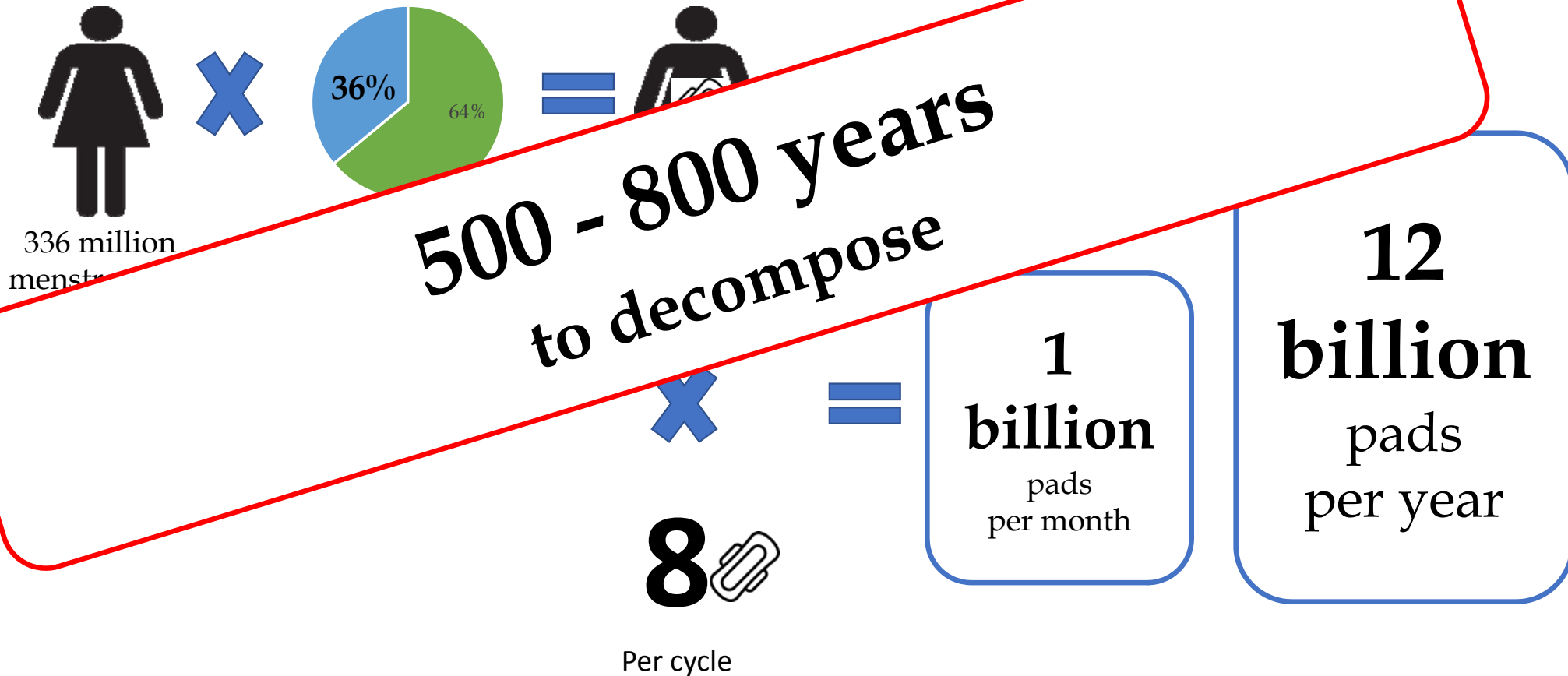
Did you know a single woman can generate up to 125 kg of non-biodegradable waste through her menstruating years alone? Knowing this staggering fact, it doesn't take a genius to do the math to comprehend the waste implications of 355 million women who are generating so much of plastic waste that takes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



Sanitary Napkin Waste Load



Menstrual Hygiene Products in India



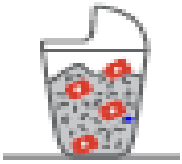
Category	Non - compostable disposable	Compostable disposable	Reusable
Products	Sanitary pads and panty liners with non-compostable raw materials like plastic barriers, super absorbent polymers	Sanitary pads with compostable raw materials	Cloth pads, Hybrid pads (with non cloth barrier) and Menstrual Cups
Life span	One time use 500-800 years to decompose	One time use 3-6 months to decompose	Multiple use Life span of 1-10 years
Cost	Multiple players; low cost versions available	Currently higher cost than non-compostable versions	One time cost maybe high; life cycle cost is usually lower than disposables.
Availability	Largest market share and reach	Limited	Limited

Menstrual Hygiene Products in India



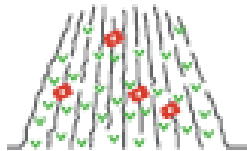
Where are the 12 billion pads going?

Thrown with
routine waste



28%

Thrown in
open



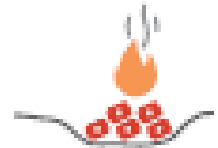
28%

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

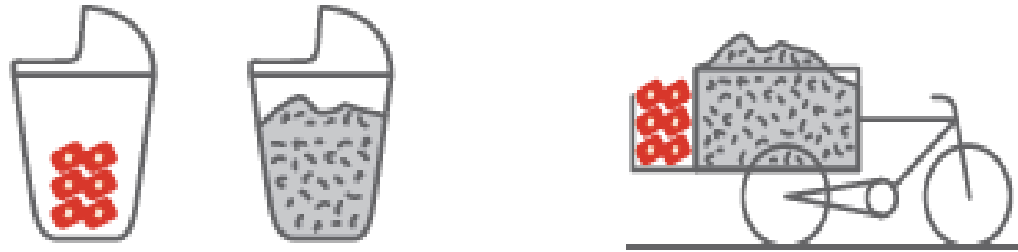
Classification of menstrual waste

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

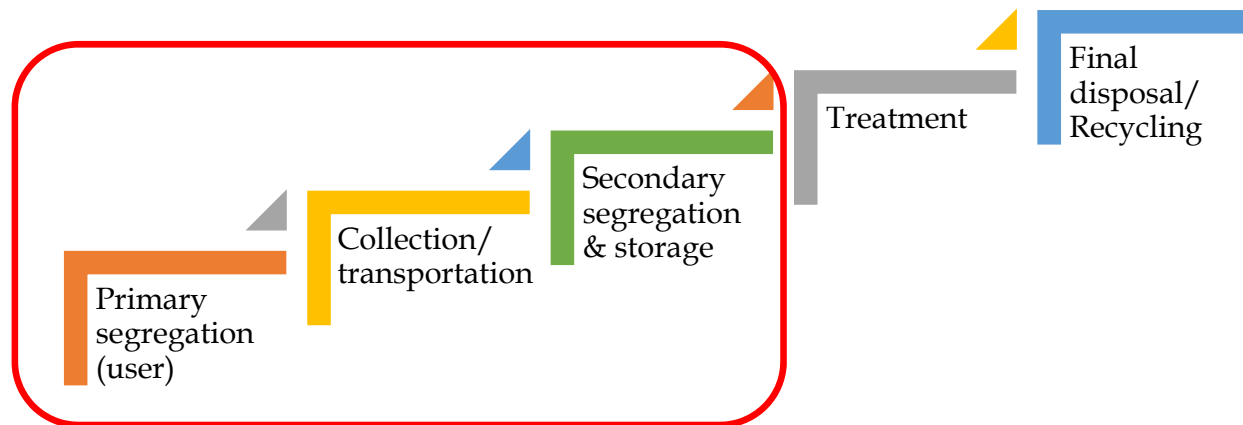
Safe Management of Menstrual Waste

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

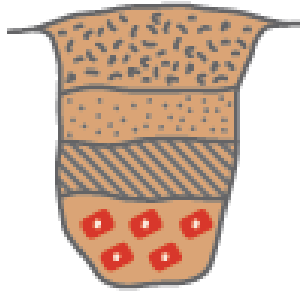
Autoclave

**Chemical
treatments**

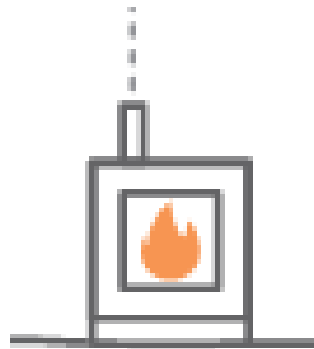
This waste will require further treatment and disposal post sterilization

Effective Treatment of Menstrual Waste

Transform waste



Compost

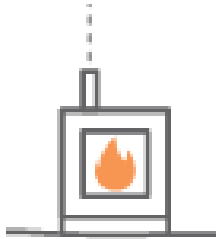


Incinerate

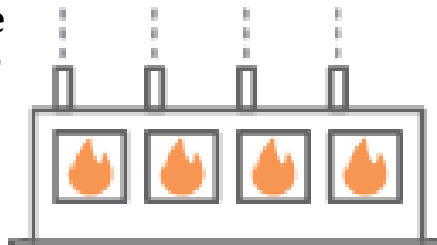


Recycle

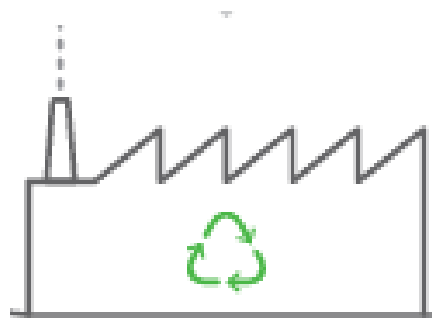
Incinerator Technologies



**Small-scale
incinerator**

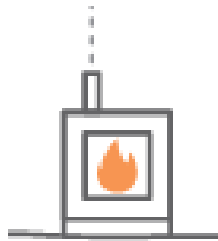


**Large -scale
incinerator
Central/biomedical**

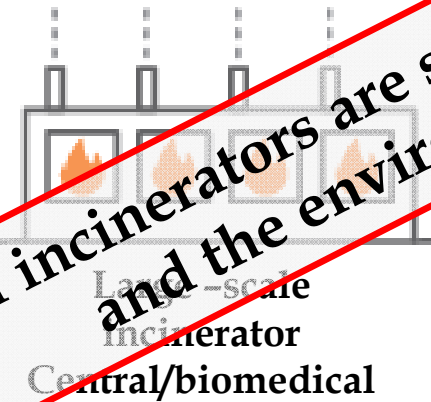


**Waste to energy
incinerator**

Incinerator Technologies



Small-scale
incinerator



Large-scale
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Central/biomedical



Waste to energy
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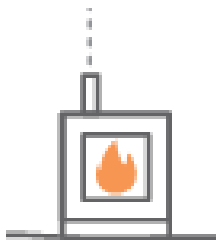
**Not all incinerators are safe – for health
and the environment**

Inefficient, incomplete burning

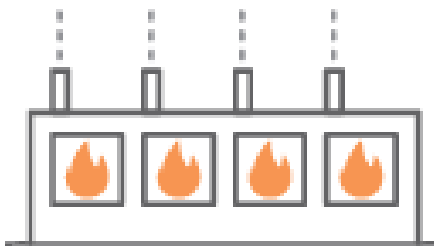


**Dioxins
Furans**

Incinerator Technologies



Small-scale
incinerator



Large -scale incinerator
Central/biomedical



Waste to energy incinerator

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

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.

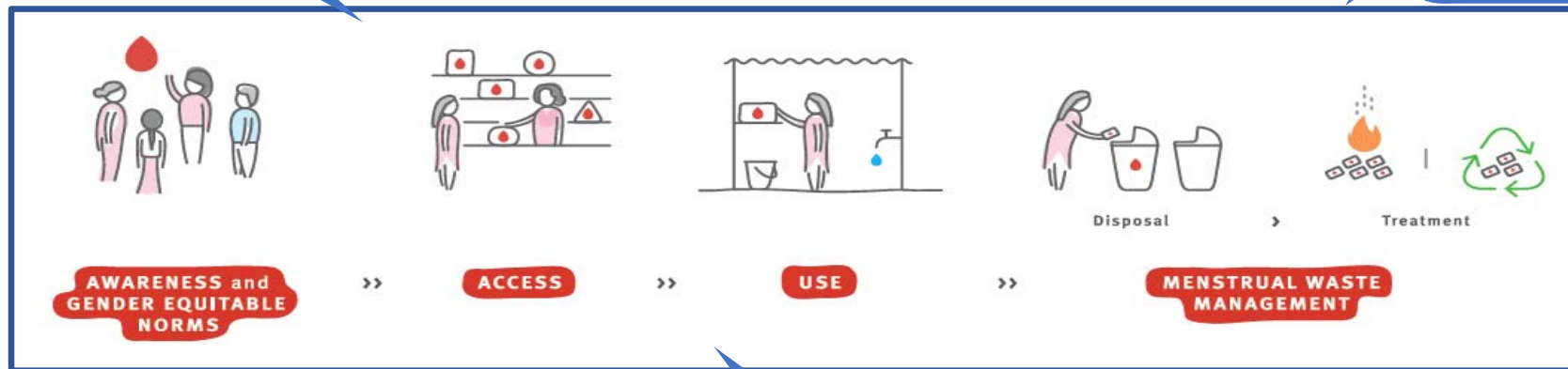
Linking Products & Waste Management Solutions

MENSTRUAL HYGIENE ABSORBENT	Details	Thrown in open, latrine, shallow burial	Landfill	Deep burial composting bio-digesters	Chemical treatment and autoclave	Recycling	Matka/ terracotta/ cement/ bhattis brick/tin	Electric	Waste to energy	Bio-medical, central facility
CLOTH AND HYBRID PADS (W/ WITHOUT INSERT)	Cotton	🔴	🟡	🟢	🟡	🟡	🟡	🟢	🟢	🟡
	Synthetic/ microfiber	🔴	🟡	🟡	🟡	🟡	🔴	🟡	🟢	🟡
	With PUL*	🔴	🟡	🟡	🟡	🟡	🔴	🟡	🟢	🟡
MENSTRUAL CUPS		🔴	🔴	🔴	🟡	🟡	🔴	🟢	🟢	🟡
SANITARY NAPKINS AND PANTY LINERS	Cellulose based w/ plastic barrier	🔴	🔴	🔴	🟡	🟢	🔴	🟢	🟢	🟢
	Cellulose based w/ plastic barrier + SAP*	🔴	🔴	🔴	🟡	🟢	🔴	🟢	🟢	🟢
	Tampons	🔴	🟡	🔴	🟡	🟢	🟡	🟢	🟢	🟢
COMPOSTABLE SANITARY NAPKINS	All components compostable	🔴	🟢	🟢	🟡	🟢	🟡	🟢	🟢	🟢

Effective Implementation Comprehensive Programming

IEC strategy

INDICATORS
Monitoring and
Evaluation



*Capacity
building*

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