

*The Business of Change 2025*

# MANAGING MENSTRUAL WASTE FOR A SUSTAINABLE FUTURE





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# Foreword



Menstruation is a natural part of life for nearly **393 million women in India**. The stigma still exists and the management of menstrual waste has emerged as a pressing public health and environmental challenge of our time. With an estimated **175 million people relying primarily on single-use sanitary pads**, the country generates close to **16.8 billion pads each year**. Most of these are plastic-rich and non-biodegradable, and when discarded unsafely—whether in open spaces, water bodies, or through low-temperature burning—they compromise environmental health, and undermine the dignity of women and girls.

Over the last decade, India's sanitation journey has been extraordinary. **The Swachh Bharat Mission (SBM)**, now in its second phase, has taken the country from addressing the challenge of open defecation to the larger ambition of *Sampoorn Swachhata*, encompassing sustainable management of both solid and liquid waste. The **Jal Jeevan Mission** has brought tap water to over **15 crore rural households**, transforming the daily lives of millions of women and girls. Ministries across health, education, women and child development, and water and sanitation have advanced menstrual health and hygiene (MHH) initiatives, ensuring that women and girls have access not only to toilets and water but also to safe, affordable products and reliable information. States too—through pioneering schemes such as *Khushi* in Odisha and *Asmita Plus* in Maharashtra—have added further momentum. Together, these efforts reflect a national commitment to making sanitation inclusive, equitable, and responsive to the needs of all, with menstrual health firmly part of the agenda.

This year's compendium, developed in collaboration with our Knowledge Partner **Menstrual Health Action for Impact (MHAi)**, brings a sharp focus to menstrual waste management—an issue long overlooked but increasingly urgent. The compendium moves beyond alarming statistics to highlight the innovative local initiatives that are paving pathways toward sustainable solutions. The **2025 edition presents 26 case studies** from across the

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country, showcasing innovations in **reusable and compostable products**, safe and community-led disposal models, decentralized treatment technologies, and powerful campaigns for awareness and behaviour change. Together, these examples highlight that menstrual waste can indeed be managed in ways that are safe, sustainable, and socially acceptable, while protecting the dignity of those who menstruate and the health of those who handle waste.

As we reflect on these inspiring stories, the India Sanitation Coalition sees clear opportunities to deepen the national conversation on menstrual health and hygiene and menstrual waste management. There is a need to more deliberately integrate menstrual waste into mainstream solid waste management systems so that it is not treated as an afterthought but as an essential component of urban and rural waste plans. Equally, there is scope to strengthen standards for both products and technologies, ensuring that what is produced, sold, and deployed in communities meets the highest benchmarks of safety and sustainability. Finally, we must encourage public-private partnerships to help scale promising innovations, particularly those aligned with India's vision of a circular economy-where menstrual waste is not merely discarded but transformed into a resource.

India today stands at a pivotal moment. Having succeeded in expanding access to menstrual products and sanitation facilities, our task now is to ensure that the resulting waste is managed responsibly and sustainably. This compendium is both timely and necessary: it offers not only practical insights but also inspiration for policymakers, practitioners, and innovators to act with courage and urgency.

The journey toward true dignity in menstrual health will only be complete when every woman and girl can manage her period **safely, without stigma, and in harmony with the environment.**

**Ms. Naina Lal Kidwai**  
Chair, India Sanitation Coalition

# Preface



Menstrual waste management is rapidly emerging as one of the most pressing challenges within India's sanitation, public health, and environmental agendas. As access to menstrual products expands, the question of their safe disposal and treatment has become inseparable from the dignity of women and girls, the health of sanitation workers, and the sustainability of our environment.

This edition of *The Business of Change 2025* compendium brings together **26 case studies** that reflect a wide spectrum of approaches: from the development of **reusable and compostable products**, to initiatives distributing reusable menstrual products, awareness campaigns that break taboos and promote safe practices, and community-led models for segregation and responsible disposal. While not every initiative is fully scaled or sustainable yet, collectively they provide a critical body of evidence and learning that can shape the way forward for policymakers, practitioners, and CSR actors.

At REC Limited, supporting inclusive development and environmental sustainability lies at the heart of our CSR vision. Through our CSR arm, REC Foundation, we have sanctioned **over 300 projects** and disbursed more than **₹1,100 Crore** to date across key sectors including sanitation and hygiene, healthcare, women's empowerment, environmental sustainability, and rural infrastructure. Among these efforts is the procurement, installation, and operation of **2,000 sanitary napkin vending machines** with integrated menstrual waste disposal facilities through GeM — a project that directly advances menstrual health and dignity for women and girls. Such initiatives reflect our broader commitment to ensuring that growth and development are both equitable and sustainable.

We believe this compendium will serve as more than a record of experiences; it will act as a **resource and**

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**catalyst for future action.** By documenting what has been attempted and learned, it will inspire new directions, help integrate menstrual waste management into mainstream waste systems, encourage the adoption of product and technology standards, and support partnerships that can scale solutions aligned with India's circular economy vision.

On behalf of REC Limited, I extend my congratulations to the India Sanitation Coalition and its partners for compiling this important compendium. We are proud to have supported the initiative and look forward to its contribution toward building a cleaner, healthier, and more equitable future.

**Shri Jitendra Srivastava**  
Chairman & Managing Director  
REC Limited

# Acknowledgement



It gives me great pleasure to present this year's Business of Change compendium, dedicated to the theme of Menstrual Waste Management. Through 27 diverse and insightful case studies, this edition highlights the innovations, challenges, and opportunities in addressing one of the most urgent yet under-discussed dimensions of sanitation. We hope the compendium will serve as both a reference and an inspiration for policymakers, practitioners, and stakeholders working to build sustainable and inclusive sanitation systems.

At the outset, I would like to extend my sincere gratitude to Ms. Naina Lal Kidwai, Chair of the India Sanitation Coalition, for her vision and guidance. Her leadership continues to inspire us to address complex and emerging themes in sanitation and to convene stakeholders in ways that foster collaboration and knowledge sharing.

We are equally grateful to REC Limited for their generous financial support, which made this compendium possible.

Our heartfelt thanks go to our Knowledge Partner, Menstrual Health Action for Impact (MHAi), and especially to Dr. Arundati Muralidharan, Ms. Tanya Mahajan, and Ms. Soumya Tiwari. MHAi not only conceptualised the compendium but also engaged a vast network of organisations to contribute case studies. Their rigorous reviews, thoughtful queries, and constructive feedback were invaluable in refining the content and strengthening the credibility of this edition.

I would also like to acknowledge with respect and gratitude the many organisations, NGOs, social enterprises, start-ups, and government agencies that shared their experiences for inclusion in this compendium. Their commitment to finding contextually relevant, innovative, and sustainable solutions has enriched this publication and contributed valuable knowledge to the wider sanitation community.

Finally, I would like to express my deep appreciation to the India Sanitation Coalition team, whose dedication made this report possible. In particular, I recognise the

ACKNOWLEDGEMENT

contributions of our Knowledge Management & Research working group, ably led by Ms. Anjali Tripathy, along with her team member Mr. Nikhil Singh. I also wish to acknowledge Ms. Nupur Krishna, who previously led the group and played a central role in steering the compendium during its early stages. This continuity of dedication and expertise has ensured that the publication stands as a high-quality and impactful resource.

This collective effort reflects the spirit of partnership and collaboration that defines ISC's work. I am confident that this compendium will advance the discourse on menstrual waste management and inspire scalable action across India.

**Natasha Patel**  
Chief Executive Officer,  
India Sanitation Coalition

## Acronyms

Acronym	Full form / Meaning
5D	Five-step recycling process: Disintegrate, Deodorize, Disinfect, Decolorize, Deactivate (SAP)
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
B2B	Business-to-Business
B2C	Business-to-Consumer
BCC	Behaviour Change Communication
BMC	Brihanmumbai Municipal Corporation
CBO	Community-Based Organization
CFAR	Centre for Advocacy and Research
CInI	Collectives for Integrated Livelihood Initiatives
CSR	Corporate Social Responsibility
DMFT	District Mineral Foundation Trust
EPR	Extended Producer Responsibility
IEC	Information, Education & Communication
ISC	India Sanitation Coalition
FICCI	Federation of Indian Chambers of Commerce and Industry
MHAi	Menstrual Health Action for Impact
MHH	Menstrual Health & Hygiene
MHM	Menstrual Hygiene Management
MWM	Menstrual Waste Management
NFHS	National Family Health Survey
NGO / INGOs	Non-Governmental Organization / International NGOs
NRLM	National Rural Livelihoods Mission
PRI	Panchayati Raj Institution (PRI / PRIs)
RFID	Radio-Frequency Identification
SMC	School Management Committee

Acronym	Full form / Meaning
SAP	Super-Absorbent Polymer
SBM	Swachh Bharat Mission
SBM-G	Swachh Bharat Mission — Gramin (rural)
SWM	Solid Waste Management
SHG	Self-Help Group
Solid Waste Rules	Solid Waste Management Rules (abbreviated in text as SWM rules)
ULB	Urban Local Body
UNICEF	United Nations Children's Fund
UPI	Unified Payments Interface
VAP	Vented Activated Protection
WASH	Water, Sanitation & Hygiene
WATSAN	Water & Sanitation (WATSAN committees)
WASH Institute	Water, Sanitation and Hygiene Institute (organization)

# Introduction

## Menstrual waste management in India

### The Urgent Need for Menstrual Waste Management in India

**India has made tremendous strides in improving menstrual health and hygiene (MHH) for millions. As access to single use menstrual products soars, the management of used and discarded products must be addressed to further promote health of individuals, communities, and the environment.**

India is home to an estimated 393 million people who menstruate.<sup>1</sup> Meeting their menstrual health needs requires access to menstrual products, water, sanitation, and hygiene (WASH) facilities, and services, and also a supportive socio-cultural environment free of stigma and discrimination.<sup>2</sup> Greater access to information, products, and facilities has enabled millions of women, girls, and others who menstruate to better manage their periods with dignity. However, as access to single-use menstrual products expands, a challenge has emerged: the safe, effective and sustainable management of used and discarded products, particularly single use products like sanitary pads. Without effective solutions, menstrual waste poses risks to the health of individuals and the communities they live in, has implications for the environment, and compromises the dignity and health of sanitation and waste workers.

Since 2011, Government of India Ministries, including Health and Family Welfare, Women and Child Development, Education, and Jal Shakti, have rolled out initiatives to expand MHH services. State governments, too, have introduced targeted programs such as Odisha's Khushi Scheme, Maharashtra's Asmita Plus Scheme, Madhya Pradesh's Udita

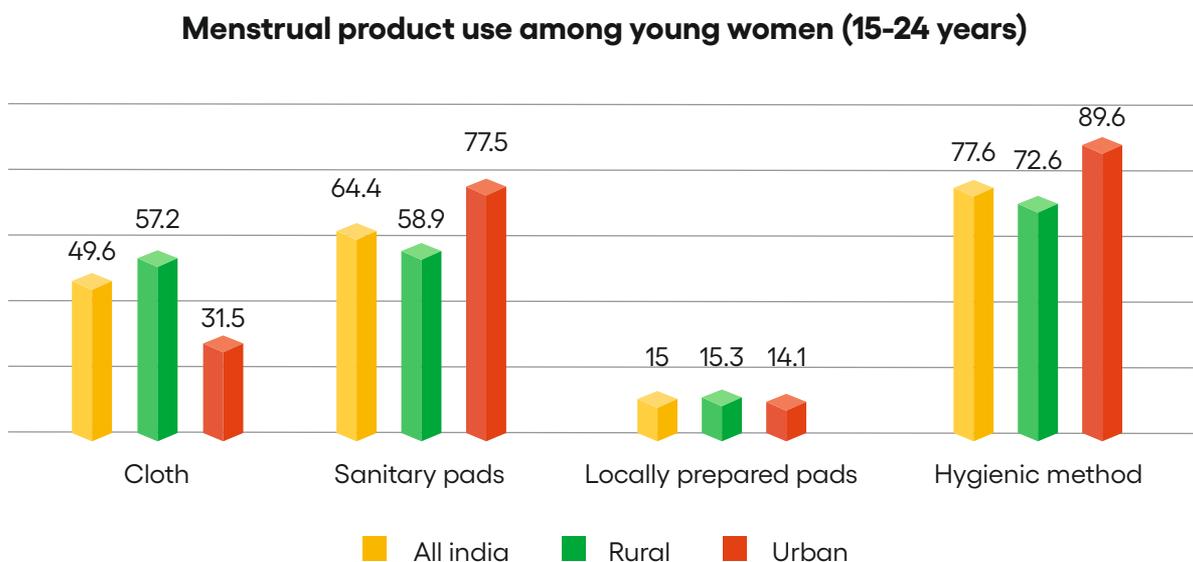
<sup>1</sup> Weinberger M, Eva G, Bellows N, Reidy M, Sanders R, and Ahsan, S. LEAP: Landscape and Projection of Reproductive Health Supply Needs. Reproductive Health Supplies Coalition. 2024.

<sup>2</sup> Hennegan J, Winkler IT, Bobel C, Keiser D, Hampton J, Larsson G, Chandra-Mouli V, Plesons M, Mahon T. Menstrual health: a definition for policy, practice, and research. Sex Reprod Health Matters. 2021 Dec;29(1):1911618. doi: 10.1080/26410397.2021.1911618. PMID: 33910492; PMCID: PMC8098749.

Scheme, and Rajasthan's Udaan Scheme. Civil society, social enterprises, and the private sector have significantly complemented these efforts. Together, these multi-stakeholder initiatives have resulted in significant increases in awareness, access to sanitation facilities, and use of hygienic menstrual products.

Data from the last two rounds of the National Family Health Surveys (NFHS) (NFHS 4 in 2015-16 and NFHS 5 in 2019-21) highlight the progress made, especially in the use of safe products. The proportion of young women (15–24 years) using hygienic menstrual products rose from 57.6% in 2015–16 to 77.6% in 2019–21.<sup>3</sup> Use of sanitary pads is now reported by nearly 60% of young women in rural areas and over 77% in urban areas.<sup>4</sup> While this reflects improved access to products, it also underscores the scale of menstrual waste being generated across the country.

Figure 1: The use of menstrual products by urban-rural residence by young women, 15-24 years (all India) based on NFHS-5<sup>5</sup>



Each year, an estimated 175 million people in India primarily rely on single-use pads, generating **16.8 billion discarded products**.<sup>6,7</sup> This waste, like other forms of waste, must be managed safely to protect users, sanitation and waste workers, and prevent contamination of air, water, and soil.

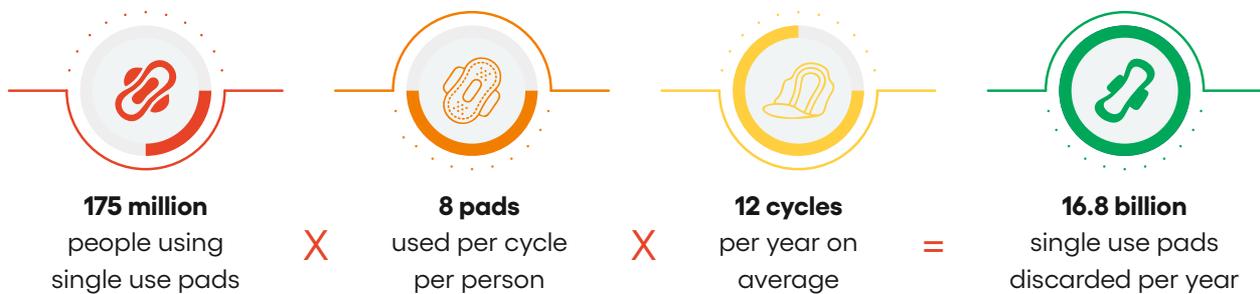
<sup>3</sup> International Institute for Population Sciences (IIPS) and ICF. 2021. National Family Health Survey (NFHS-5), 2019-21. India. Volume 1. Mumbai, IIPS

<sup>4</sup> Ibid

<sup>5</sup> International Institute for Population Sciences (IIPS) and ICF. 2021. National Family Health Survey (NFHS-5), 2019-21. India. Volume 1. Mumbai, IIPS

<sup>6</sup> Weinberger M, Eva G, Bellows N, Reidy M, Sanders R, and Ahsan, S. LEAP: Landscape and Projection of Reproductive Health Supply Needs. Reproductive Health Supplies Coalition. 2024.

<sup>7</sup> The data used for these calculations are estimates



Three interlinked challenges make the management of menstrual waste an urgent and important area of action:

1. **Product composition:** Most single-use pads are composed of plastics, superabsorbent polymers, cellulosic materials, and chemical additives.<sup>8</sup> These materials require hundreds of years to degrade naturally, and when combined with menstrual blood and tissue, require careful handling to prevent pollution and the spread of pathogens.
2. **Current disposal practices:** Research and field insights indicate that used pads are often disposed of unsafely. They are mixed with household waste and sent to landfills, thrown in the open, burned in the open or at low temperatures, buried, or thrown in toilets.<sup>9,10</sup> These practices contribute to soil and water contamination, release toxic emissions, clog sewer systems, and expose sanitation and waste workers to health risks.
3. **Socio-cultural norms:** Deeply entrenched socio-cultural norms shape if and how people who menstruate are able to dispose and manage menstrual waste safely. Discretion, convenience, accessibility and ease of disposal are essential in these cultural contexts - and without them - girls and women may use menstrual products for a longer duration (placing them at risk for infection), and dispose of used materials in an unsafe way (e.g., throwing in the open or in water bodies). Socio-cultural norms also dictate which solutions may be acceptable. For instance, burning menstrual blood and materials is taboo in some cultures.

In sum, menstrual waste in India today is not managed in ways that safeguard human health or the environment, and are responsive to socio-cultural considerations.<sup>11</sup> As India continues to expand access to menstrual products, it must address this neglected dimension of MHH to ensure a healthier, more sustainable future.

<sup>8</sup> Toxics Link (2022). Wrapped in Secrecy. <https://toxicslink.org/wp-content/uploads/2022/08/Menstrual%20Waste%20-%202022.pdf>

<sup>9</sup> van Eijk AM, Sivakami M, Thakkar MB, Bauman A, Laserson KF, Coates S, Phillips-Howard PA. Menstrual hygiene management among adolescent girls in India: a systematic review and meta-analysis. *BMJ Open*. 2016 Mar 2;6(3):e010290. doi: 10.1136/bmjopen-2015-010290. PMID: 26936906; PMCID: PMC4785312.

<sup>10</sup> Sharma S, Mehra D, Brusselaers N, Mehra S. Menstrual Hygiene Preparedness Among Schools in India: A Systematic Review and Meta-Analysis of System-and Policy-Level Actions. *International Journal of Environmental Research and Public Health*. 2020; 17(2):647. <https://doi.org/10.3390/ijerph17020647>

<sup>11</sup> Center for Science and Environment (2022). Sanitary Waste Management in India: Challenges and Agenda <https://www.cseindia.org/sanitary-waste-management-in-india-challenges-and-agenda-11282>

## Managing menstrual waste safely, effectively, and sustainably

**Menstrual waste** refers to the combination of biological matter such as menstrual blood and associated vaginal and uterine discharge, as well as the materials used to absorb or collect it. These materials include **absorbent products** such as single-use sanitary pads, tampons, cloth and fabric-based reusable pads, and menstrual underwear (reusable or disposable), as well as **collection products** such as menstrual cups and discs.

**Safe menstrual waste management** refers to the **systematic handling of menstrual waste** through the value chain from **immediate disposal, collection, storage, transportation, treatment, and final disposal**, in a manner that ensures:

- The health, dignity, and privacy of people who menstruate
- The health and safety of all individuals involved in the waste management value chain
- Minimal adverse impacts on the environment, including contamination of land, air, and water resources

## Policy and Regulatory Considerations

Policy and regulatory frameworks set the foundation for safe and effective menstrual waste management. They influence how products are designed, how waste is classified and handled, and what standards guide treatment technologies. Three areas are particularly critical for menstrual waste.

1. **Product standards:** Standards for menstrual products (single use pads and tampons, reusable pads and period panties, menstrual cups and discs) directly shape which waste management options are feasible. For example, products that are certified as compostable can be managed through decentralized composting pits in schools or communities, while regular pads and ultra thin pads with super absorbent polymer (SAP) will require high temperature incineration and/or chemical treatments. Standards for emerging technologies like flushable pads will also safe and responsible introduction of these options.
2. **Technology standards:** Regulations on waste treatment technologies, particularly incinerators, are essential to safeguard health and the environment. While India has standards for large-scale biomedical and hazardous waste incinerators, equivalent standards for small-scale or decentralized units, which are often used in educational institutions, public and community toilets and worksites are still awaited.
3. **Waste classification:** The categorization of menstrual waste affects the entire value chain, from segregation and collection to transport and end of life treatment. Currently, menstrual waste is classified as solid waste (sanitary waste) under the Solid Waste Management Rules of 2016 and the latest draft Solid Waste Management Rules 2024.

Table 1: Relevant regulations for menstrual waste management in India

<p><b>Menstrual product standards</b></p> <p>The Bureau of Indian Standards, Ministry of Consumer Affairs, Food and Public Distribution specifies standards for:</p> <ol style="list-style-type: none"> <li>1. Single use sanitary pads and tampons (IS 5405: 2019)<sup>13</sup></li> <li>2. Reusable sanitary pads and menstrual underwear (IS 17514: 2021)<sup>14</sup></li> </ol>
<p><b>Incinerator standards</b></p> <p>The Central Pollution Control Board, Ministry of Environment, Forest and Climate Change specifies standards for:</p> <ol style="list-style-type: none"> <li>1. Biomedical incinerators<sup>15</sup></li> <li>2. Common hazardous waste incinerators<sup>16</sup></li> </ol>
<p><b>Waste management</b></p> <ol style="list-style-type: none"> <li>1. Solid Waste Management Rules 2016<sup>17</sup></li> <li>2. Solid Waste Management Rules (draft) 2024</li> <li>3. Guidelines for the management of sanitary waste, 2018<sup>18</sup></li> <li>4. Guidelines for pre-processing and c-processing of hazardous and other wastes in cement plants<sup>19</sup></li> <li>5. Biomedical Waste Management Rules, 2016: Standards for deep burial pit<sup>20</sup></li> </ol>

Understanding this policy and regulatory landscape is vital for advocates, policymakers, and implementers alike. It enables informed choices on safe products and technologies, and helps governments align existing waste management systems with menstrual waste realities.

## Approaches to Menstrual Waste Management

Solutions for menstrual waste span the entire value chain, and includes awareness, disposal, segregation, collection and transportation of waste, end of life treatment, recovery/recycling (where technologies exist), and waste reduction. Table 2 details the types of menstrual waste management approaches and Table 3 provides an overview of the supportive activities conducted to increase the effectiveness of these interventions.

<sup>13</sup> BIS specifications for single use menstrual products: <https://bis.gov.in/wp-content/uploads/2020/09/Revised-PM-IS-5405.pdf>

<sup>14</sup> BIS specifications for reusable pads, menstrual underwear: <https://www.bis.gov.in/wp-content/uploads/2023/12/PM-17514-Dec-2023.pdf>

<sup>15</sup> Biomedical waste incinerator specifications: <https://cpcb.nic.in/bio-medical-incinerators/>

<sup>16</sup> Common hazardous waste incinerator specifications: <https://cpcb.nic.in/common-hw-incinerators/>

<sup>17</sup> Solid Waste Management Rules, 2016: [https://cpcb.nic.in/uploads/MSW/SWM\\_2016.pdf](https://cpcb.nic.in/uploads/MSW/SWM_2016.pdf)

<sup>18</sup> Guidelines for the management of sanitary waste (with a focus on menstrual waste) presents overarching guidance on solutions, while acknowledging that specifications are unavailable for on-site solutions: [https://cpcb.nic.in/uploads/MSW/Final\\_Sanitary\\_Waste\\_Guidelines\\_15.05.2018.pdf](https://cpcb.nic.in/uploads/MSW/Final_Sanitary_Waste_Guidelines_15.05.2018.pdf)

<sup>19</sup> Guidance from CPCB on pre-processing and co-processing of hazardous and other wastes in cement plants is relevant as some innovative solutions recommend the use of single-use sanitary pads in cement plants to generate energy <https://cpcb.nic.in/openpdffile.php?id=TGF0ZXN0RmlsZS8xNjdfMTQ5OTgzNzA1MF9tZWVpYXBob3RvMTQ5OTYucGRm>

<sup>20</sup> Standards for deep burial pit under Biomedical Waste Management Rules: [https://cpcb.nic.in/uploads/projects/bio-medical-waste/guidelines\\_healthcare\\_june\\_2018.pdf](https://cpcb.nic.in/uploads/projects/bio-medical-waste/guidelines_healthcare_june_2018.pdf)

Table 2: Approaches to menstrual waste management

Approach	Purpose	Potential solutions
<b>Menstrual product solutions</b>		
<b>Reusable menstrual products</b>	Lessens the amount/volume of waste that is generated and later managed	<ul style="list-style-type: none"> <li>• <u>Reusable menstrual products</u> such as cloth pads, menstrual underwear and menstrual cups that can be washed, dried, and reused.</li> </ul>
<b>Menstrual product innovations</b>	Product innovations that lend themselves to safer or easier disposal within existing systems	<ul style="list-style-type: none"> <li>• <u>Single use products</u> made of compostable raw materials that degrade within a stipulated timeframe (1-2 years) under composting conditions</li> </ul>
<b>Safe disposal, segregation, collection and transport of menstrual waste</b>		
<b>Segregate waste (at source)</b>	Promotes and supports the segregation of waste at source, and supports downstream management of this waste more efficiently.	<ul style="list-style-type: none"> <li>• <u>Waste segregation at source</u> through separate dustbins, placing of red dots on discarded menstrual waste which helps to identify this waste as distinct from other waste generated.</li> </ul>
<b>Dispose waste safely and discretely (at first point of disposal)</b>	Enable users to safely dispose of waste at home, institutional settings, community and public toilets.	<ul style="list-style-type: none"> <li>• <u>Separate dustbin</u> may be provided for menstrual waste at household and institutional settings.</li> <li>• <u>Disposal chute</u> may be used to collect discarded materials directly in disposal and burning chambers</li> <li>• <u>Disposal package or pouches</u> (made of paper, plastic, bioplastic) with markings can be provided to wrap menstrual waste, and to mark the waste out to be collected/treated separately</li> </ul>
<b>Collection and transportation of segregated waste</b>	Supports safe collection of segregated waste, and transportation for further processing.	<ul style="list-style-type: none"> <li>• <u>Separate containers</u> to collect menstrual waste from households, institutions.</li> <li>• <u>Designated collection bins</u> for menstrual waste collected from disposal sites and transported to waste management sites.</li> <li>• <u>Designated areas</u> (e.g., waste collection sites or resource recovery sites) for secondary segregation.</li> </ul>
<b>End of life treatment of menstrual waste</b>		
<b>Transform waste</b>	Reduces waste volume and reduces pathogen content through treatment processes that change the very structure of waste.	<ul style="list-style-type: none"> <li>• <u>Incineration technologies</u>- small incinerators, hazardous waste incinerators, bio-medical waste incinerators</li> <li>• <u>Contained burning</u> – burning chambers (locally constructed pots, chambers with brick, cement, mud</li> <li>• <u>Deep burial and composting pits</u> (separate pits may be established for cloth and sanitary pads)</li> </ul>

Approach	Purpose	Potential solutions
<b>Waste to resource solutions</b>	Treats waste to make it sterile and to extract components to recycle into usable products or use the waste as energy	<ul style="list-style-type: none"> <li>• <u>Recycling</u> (combination of waste sterilization and processing) that treats waste and generates usable by-products</li> <li>• <u>Waste to energy and co-processing</u> technologies use menstrual waste to generate energy for other purposes.</li> </ul>
<b>Sterilize waste</b>	Makes menstrual waste less hazardous through treatments that make them inert and pathogen free.	<ul style="list-style-type: none"> <li>• Chemical treatments</li> <li>• Autoclaving</li> <li>• Microwave technologies</li> </ul> <p><i>Note: Protocol for sterilizing menstrual waste does not exist in India</i></p>

Table 3: Supportive activities for effective menstrual waste management

Supportive Activity	Purpose	Potential solutions
<b>Behaviour change &amp; capacity building</b>		
<b>Behaviour change communication</b>	Ensures evidence based, informed, and context appropriate implementation of waste management solutions through awareness on what menstrual waste is, and how it can be safely disposed and managed, causing least harm to users, waste and sanitation workers, and the environment. Awareness generation is needed across stakeholders, including users, waste workers, and policy makers.	<ul style="list-style-type: none"> <li>• Community based/focused campaigns</li> <li>• Large-scale media campaigns</li> </ul>
<b>Capacity building</b>	Builds the capacity of waste and sanitation workers to manage menstrual waste safely during collection, transportation, secondary segregation, and end of life treatment.  Orients authorities and individuals involved in planning and management of solutions including Government and community stakeholders	<ul style="list-style-type: none"> <li>• Capacity building through orientations or trainings with different stakeholders engaged in waste management</li> <li>• Capacity building workshops for sanitation and waste workers</li> <li>• Orientation workshops with local government (rural and urban) and other stakeholders on menstrual waste management</li> </ul>
<b>Policy Integration</b>		
<b>Policy integration</b>	Integrates approaches and/or solutions into existing government guidance on solid waste, sanitation, MHH or other relevant areas	<ul style="list-style-type: none"> <li>• Integration of solutions into a ULB or gram panchayat's waste management plan</li> <li>• Guidance on menstrual waste management into MHH policies or schemes at the national and state level</li> </ul>
<b>Evidence generation</b>		
<b>Evidence generation</b>	Builds evidence on acceptability of menstrual waste management solutions by users and those engaged with waste management along the value chain.  Provides evidence on the safety and effectiveness of waste management solutions	<ul style="list-style-type: none"> <li>• Routine monitoring of implementation, reach and uptake of solutions</li> <li>• Assessments and evaluations of what works, and outcomes/ impact achieved</li> <li>• Product/technology innovation and testing</li> </ul>

# About this compendium

The India Sanitation Coalition (ISC) FICCI 'The Business of Change' series is an annual publication that features inspiring stories and best practices covering the entire gamut of themes across the sanitation value chain. It is designed to benefit policymakers, implementers, planners, and program managers by serving as a ready reference for the latest advancements and proven technologies and processes in the water and sanitation space.

The 2025 edition, titled "**Menstrual Waste Management**," endeavors to highlight inspiring stories of success in the field of menstrual waste management. This year, ISC is collaborating with think tank Menstrual Health Action for Impact (MHAi) as their Knowledge Partner.

ISC and MHAi invited NGOs, INGOs, CBOs, private sector entities, start-ups, and government agencies to submit case studies on menstrual waste management solutions that they have developed or implemented, and deserve recognition within the WASH and waste management community. Submissions highlighted best practices, interventions, or models that used contextually relevant or innovative approaches or technologies (including behavior change, digital technology) that address key challenges in relation to the safe, effective management of menstrual waste. In addition to highlighting the key aspects of the menstrual waste management solution, the case studies in this compendium highlight budgetary considerations (cost structures), and potential for scale and sustainability.

ISC and MHAi received 32 submissions, of which 26 are included in this compendium. These case studies have been organized in the following categories in accordance with their main focus:

1. Menstrual product solutions
2. Safe disposal\*, segregation, collection and transport of menstrual waste (\*disposal refers to immediate disposal)
3. End of life treatment of menstrual waste

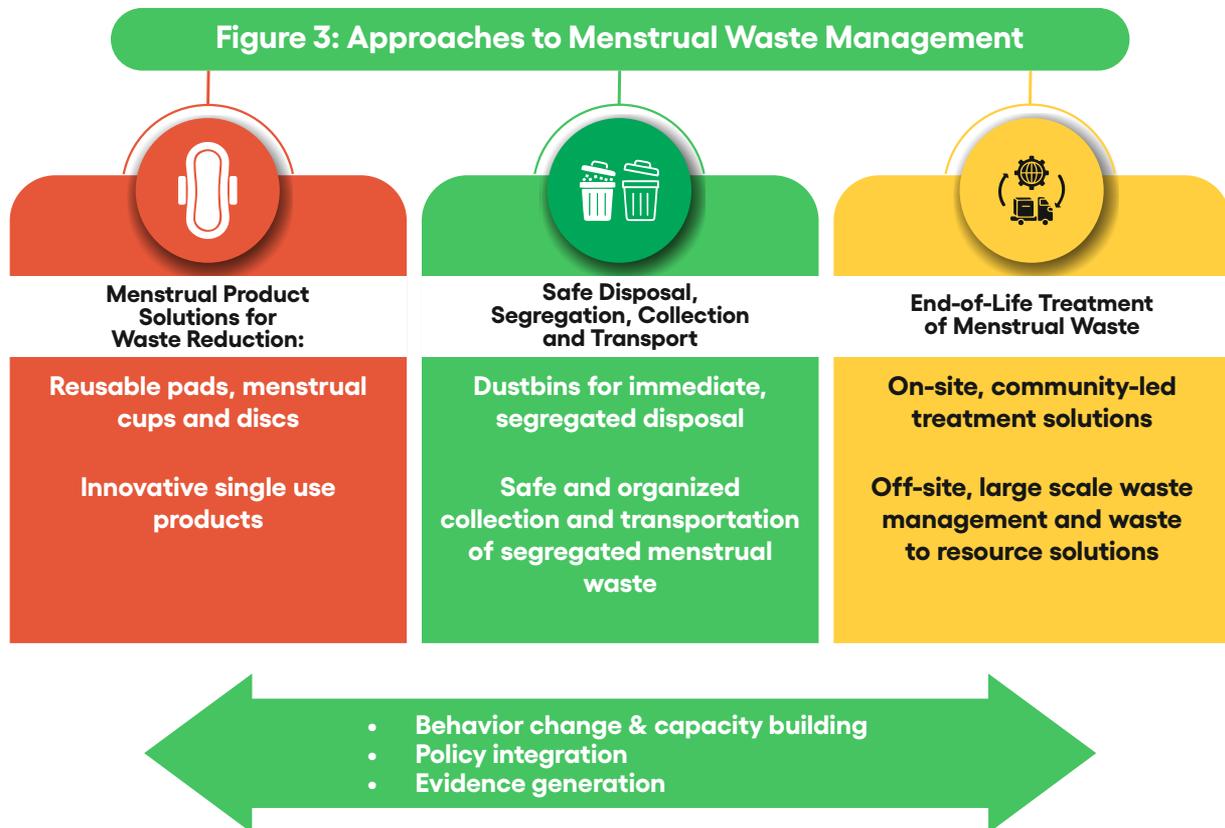
We acknowledge that several case studies incorporate other aspects (such as behavior change and capacity building, policy integration and evidence generation) and these have been highlighted as possible. Table 4 below presents how each case study addresses menstrual waste management, highlighting the primary and secondary activities.

## Reflections on the case studies in the compendium

### Types of Interventions Represented

The table classifies interventions into three broad categories, reflecting a full spectrum approach to menstrual waste management:

- **Menstrual Product Solutions for Waste Reduction:** Product solutions take the form of reusable products like reusable pads and menstrual cups, as well as single-use products that lend themselves to easier waste management within existing structures such as compostable and flushable pads.
- **Safe Disposal, Segregation, Collection and Transport:** Interventions include those that provide bins for menstrual waste, specific labeling of menstrual waste, and organized and safe collection systems.
- **End-of-Life Treatment of Menstrual Waste:** Small-scale and community-based treatment technologies (incinerators, burning chambers, deep burial pits, composting pits) as well as large scale waste-to-resource solutions have been featured.



The cases also highlight activities for **Behavior Change & Capacity Building, Policy Integration and Evidence Generation**. Interventions have included awareness campaigns, training of waste workers, community based institutions and ULB representatives. They have also generated data on program reach and outcomes and insights on user experiences to improve the program and technology design. Strikingly, many interventions have sought to integrate within Government programs, often plugging menstrual waste management into local government waste management plans at the level of gram panchayats, districts or ULBs.

## Comprehensive Nature of Interventions

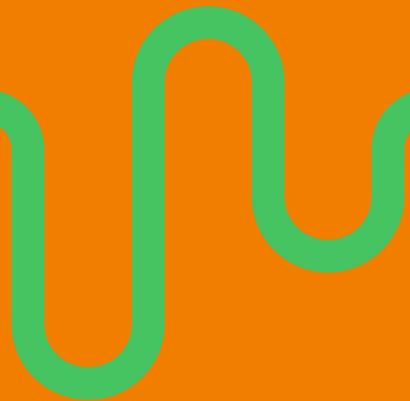
- **Most interventions are multi-pronged and engage multiple stakeholders.** Many case studies go beyond a single activity, combining product innovation or an end of life technology with disposal solutions, community education, and capacity building of relevant stakeholders. Interventions bring together several stakeholders including the community, institutions, donors, and the government to develop and implement responsive solutions.
- **Behavior change and capacity building appear widely as secondary components,** suggesting recognition that technical solutions alone cannot succeed without robust user engagement and education across stakeholder groups, and capacity building of those engaged in implementation.
- **Evidence generation informed adaptation and scale.** Several interventions include monitoring, assessments, and pilots that can inform guidelines and policy integration. Pilot interventions have provided important learnings and user feedback that help innovators and implementers to adapt the basic intervention for different settings or to scale at the district or city level.
- **Strong emphasis on systemic solutions shows potential for institutionalization.** Interventions have sought to ensure that waste management solutions are not fragmented, but integrated into existing systems for waste management and menstrual health and hygiene. The presence of government-supported models shows momentum toward embedding menstrual waste management into public systems.

## Critical Insights

- **Equity and dignity lens:** Many interventions address discreet disposal and user comfort, indicating responsiveness to socio-cultural contexts and the need to reduce stigma.
- **Products a critical piece of the waste puzzle:** Interventions are changing the narrative on menstrual products as the source of waste to products being an active part of the solution.
- **Slow shift toward circular economy solutions:** Waste-to-resource solutions signal a move from simple disposal to resource recovery and sustainability. But PadCare Labs represents just one solution - highlighting the need for more such breakthrough interventions for menstrual waste.
- **Need for policy clarity & scale:** While pilots are diverse, standardization (e.g., protocols for deep burial, standards for products and technologies) remains limited, which may constrain replication and scale, and quality.
- **Limited private sector engagement:** The private sector is primarily seen as a donor in several case studies, with limited engagement for research and development and strategic integration of solutions and technologies for scale and sustainability.

# CASE STUDIES

Section: Menstrual Product Solutions



Section: Menstrual Product Solutions

## Self-disintegrable, Biodegradable, Flushable Sanitary Pads

Organization

**Ruthu Prema Health Society**

### Context & Challenge

- » **Region:** Siddipet District, Telangana – urban and rural geographies
- » **The Challenge:** The absence of menstrual waste protocols in rural and urban waste systems called for a district-wide, systemic intervention to integrate menstrual health into sanitation planning and reduce plastic pollution.

### The Intervention

#### » Approach/Model:

Ruthu Prema conceptualizes menstrual waste as a public health, dignity, and environmental issue, and not just a disposal problem. Its model integrates:

- Awareness generation and behaviour change
- Access to reusable menstrual products (menstrual cups, cloth pads)
- Training of frontline workers and SHGs
- Integration of menstrual waste into solid waste management systems
- Community-led financing and ownership models

The intervention began as a municipal pilot and scaled across Siddipet district, covering schools, households, hostels, and rural panchayats.

#### » Key Activities:

- IEC and Awareness: village-level educational sessions, school programs, short films and songs in Telugu, and a distinct campaign logo to build recall.
- Reusable Product Distribution: Menstrual cups and cloth pads distributed (free + subsidized), supported by local panchayats and elected representatives.
- Cloth Pad Production: SHG-led decentralized production with SETWIN support for training and machinery, creating rural livelihoods.
- Mobile Outreach: Deployment of “Ruthu Prema Prachara Ratham” mobile van for remote areas and kiosk at Siddipet bus stand for product access.
- Training and Convergence: Community level functionaries trained (ASHAs, Panchayat Secretaries, teachers, SHG members).

- Digital Engagement: Several short videos, social media campaigns, WhatsApp follow-ups were made and conducted.
- Policy Convergence: Institutional collaboration across health, sanitation, education, and rural development departments.

» **Partners & Stakeholders:**

- District Administration: Department of Health, Education, Panchayati Raj, ULB
- SETWIN Telangana: SHG capacity-building and production support
- Elected Representatives: Financially supported community-level product distribution
- Healthcare Workers: ASHA and ANM workers for follow-ups and usage tracking
- Community Leadership: Sarpanches and youth leaders mobilizing local financing
- Experts: SWMRT environmentalists guiding strategy
- Digital Partners: YouTube creators, local TV/cable networks amplifying IEC content

» **Resources and Innovations:**

- Integration into municipal solid waste management: Menstrual waste formally included in Siddipet's waste systems
- Mobile Awareness + Distribution: "Prachara Ratham" mobile van and bus-stand kiosk as last-mile solutions
- Digital Storytelling: Use of humour and local dialect for stigma reduction
- Community Financing: Village-led menstrual cup procurement
- In-house cloth pad production: SHGs providing both product availability and livelihoods

» **Cost of implementation and financial model:**

- Per-User Cost: ~₹200 per menstrual cup (negotiated bulk rates)
- Financing: District Administration funds (CSR + health budgets), elected representative contributions, and community co-financing
- Operational Costs: Minimal as menstrual cups last 5 –10 years, operations and maintenance mostly for IEC, logistics, and fuel for vans
- Sustainability: Ruthu Prema Health Society formed to raise funds, attract CSR support, and scale independently

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• 1,15,663 women and adolescent girls covered</li> <li>• 59,000+ menstrual cups and 12,000+ cloth pads distributed</li> <li>• 7,300+ adolescent girls reached in 45 educational institutions</li> <li>• 4,700+ functionaries trained across department</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Increased confidence and dignity around menstruation (testimonies from rural women)</li> <li>• Community-led procurement of products beyond government programs</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Narayanraopet block declared India's first zero-waste menstruation block</li> <li>• Digital monitoring via Ruthu Prema App for usage tracking and follow-ups</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Menstrual waste integrated into Siddipet's solid waste management protocols</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Visible reduction in open dumping/burning of sanitary waste</li> </ul>

## Enablers & Barriers

### » What worked:

- Strong government leadership and cross-departmental convergence
- Community trust through SHG and panchayat engagement
- Low-cost, scalable product and IEC model
- Digital tools enabling monitoring and rapid myth-busting

### » Challenges Faced:

- Cultural stigma and myths around cups and pads
- Logistics delays in bulk procurement of menstrual products
- Quality assurance for SHG-produced pads
- Sustained IEC needs in rural areas

## Sustainability and Scale

### » Sustainability Drivers:

- One-time product cost + long shelf life (menstrual cups) reduce waste burden and Operations and maintenance needs



- A formal structure (e.g., Society) allows continuous fundraising and CSR partnerships
- Community ownership ensures demand-driven expansion

» **Scalability Potential:**

- Replicable model for districts with strong SHG and panchayat networks
- Toolkits under development for replication
- Interest from neighbouring districts and state-level policy forum

**Key Takeaways**

- Government-led, community-owned models can normalize menstrual conversations and drive systemic change.
- Reusables + IEC + integration into solid waste management procedures create a holistic, zero-waste solution.
- Mobile vans, kiosks, and digital tools ensure last-mile access and sustained adoption.

**Contact / Further Information**

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Section: Menstrual Product Solutions

## From Smoke to Sanitation: Nishkaam's Integrated Approach to India's Waste Challenges

Organization

**Nishkaam Innovations**

### Context & Challenge

- » **Region:** Rajkot, Ahmedabad, Gandhinagar, Surat
- » **The Challenge:**

Plastic-based menstrual waste from conventional sanitary pads (over 90% plastic content) are discarded without proper segregation, polluting land and water while endangering sanitation workers, and the annual burning of over 100 million tonnes of crop residue that severely degrades air quality. These interconnected challenges create compounding environmental and health impacts, with plastic menstrual waste contributing to long-term pollution and stubble burning causing immediate air quality deterioration. The lack of sustainable alternatives and proper waste management systems perpetuates this cycle of environmental degradation.

### The Intervention

Nishkaam Innovations employs a circular economy approach that addresses menstrual waste at its root through material innovation rather than focusing solely on disposal methods. The intervention redefines menstrual hygiene products by utilizing processed agricultural stubble as the absorbent core, creating biodegradable sanitary pads that enable safe disposal at source. Positioned at the intersection of product innovation and waste minimization, the solution integrates research and development, sustainable manufacturing, and community awareness to transform user behavior. This approach aligns with decentralized waste management systems while simultaneously addressing both plastic pollution and agricultural waste burning through a single integrated intervention.

#### » Approach/Model:

- Product Development and Innovation: Developed biodegradable sanitary pads using processed agricultural stubble as absorbent core
- Research and Development: Conducting active R&D to develop top and bottom layers from stubble-derived materials, transitioning from current certified biodegradable layers to fully in-house production
- Community Awareness and Sensitization: Implemented awareness campaigns reaching over 1,000 individuals to promote responsible menstrual hygiene practices and product adoption

#### » Partners & Stakeholders:

- Local NGOs and Educational Institutes

## » Resources and Innovations:

It will be competitively priced with other biodegradable sanitary pads available in the Indian market. Estimated Range: Rs > 15 to end consumer/pad

## Results and Impact

Nishkaam's are in advanced field-testing phase. The company however seeks to bring about impact through this innovative menstrual product as shown in the table below.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>Sensitized over 1,000 individuals through awareness campaigns on sustainable menstrual hygiene practices</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>Empowered women with sustainable menstrual hygiene alternatives, reducing dependency on plastic-based products</li> <li>Built community awareness around circular economy solutions linking agricultural waste to menstrual hygiene</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>Divert agricultural stubble from burning practices, contributing to improved air quality</li> <li>Eliminate plastic content in menstrual products through biodegradable alternatives, reducing land and water pollution</li> <li>Create compostable menstrual waste that enables safe disposal at source, minimizing environmental impact</li> <li>Protected sanitation workers from hazardous plastic waste exposure through biodegradable product design</li> <li>Contributed to circular economy by converting over 100 million tonnes of potential crop residue waste into useful products</li> </ul>

## Enablers & Barriers

### » What worked:

- The product is in the advanced testing phase.

### » What was challenging:

- Converting coarse agricultural stubble into safe, absorbent menstrual product material, required extensive research and multiple prototyping cycles to achieve desired absorbency and comfort standards.
- Financial sustainability became critical as scaling production and outreach beyond initial grant funding proved challenging for first-time deep-tech founders seeking larger investment rounds.
- Regulatory frameworks lack clarity and supportive policies for biodegradable and alternative raw materials in menstrual hygiene products, creating barriers to institutional adoption.
- The chemical variability and texture limitations of stubble compared to conventional materials like cotton demanded innovative processing solutions.

## Sustainability and Scale

### » Sustainability:

By using locally available stubble as the absorbent core in sanitary pads, Nishkaam Innovations ensures low-cost input, material accessibility, and long-term supply sustainability while supporting environmental goals. Grassroots engagement through NGOs, schools, and colleges has fostered awareness, behaviour change, and early signs of institutional ownership.

### » Scalability Potential:

Designed for decentralised production, the model is now preparing for in-house manufacturing, with machinery development underway. This will reduce unit costs, ensure BIS compliance, and enable scalable adoption across urban and semi-urban regions.



## Key Takeaways

- » **Circular Solution to Dual Environmental Problems:** The company addresses two major environmental issues - plastic menstrual waste pollution and agricultural stubble burning and by converting crop residue into biodegradable sanitary pad cores.
- » **Advanced Development with Scaling Challenges:** While the product is in advanced field testing and has reached over 1,000 individuals through awareness campaigns, the company faces significant hurdles in scaling production, securing funding beyond grants, and navigating unclear regulatory frameworks for alternative materials.
- » **Technical Innovation with Material Constraints:** Converting coarse agricultural stubble into safe, absorbent menstrual products required extensive R&D and multiple prototyping cycles, highlighting the technical complexity of replacing conventional materials while maintaining comfort and performance standards.
- » **Sustainable Business Model in Development:** The company is preparing for decentralized, in-house manufacturing to achieve competitive pricing (Rs 15+ per pad), reduce costs, and ensure regulatory compliance while maintaining supply sustainability through locally available agricultural waste.

## Contact / Further Information

Contact person	Email	Website and other online resources
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## Section: Menstrual Product Solutions

# Papaya's Blood Solidifying Menstrual Pad for Improved Performance and Sustainability

### Organization

**Papaya Womxn Health Pvt. Ltd.**

## Context & Challenge

- » **Region:** Pan-India, focused on urban and semi-urban settings.
- » **The Challenge:** Lack of a high-performance, sustainable menstrual product that works within existing waste systems, without requiring additional behavior change interventions (needed for reusable products) or specialized disposal (required for the widely available single-use pads).

## The Intervention

### » Approach/Model:

Papaya's innovation is a biodegradable single-use menstrual pad with a bio-coagulant core that locks menstrual blood, reduces leakage, and safely degrades in landfills within eight months. The intervention focuses on material innovation and system integration, requiring no new segregation, infrastructure, or usage and disposal behavior from users.

### » Key Activities:

- R&D and Lab Testing: Developed single use pad design, validated absorption, coagulation, and landfill degradation (aerobic/anaerobic).
- Prototype and Field Testing (2024): Conducted consumer trials and real-world disposal observations.
- Market Launch: Rolled out to urban markets with early adopters; 50,000 pads sold to date.
- Scale-Up: Setting up in-house manufacturing in Bangalore (2025) to ensure cost efficiency and quality.

### » Partners & Stakeholders:

Implementation partners:

- Corporate partners and professional networks for sampling and awareness
- Logistics partners for nationwide subscription fulfilment
- Universities, sports clubs, and community groups for pilot programs and advocacy

» **Resources:**

- Founder-led and supported by investors, with a B2C subscription model as the primary revenue stream.

» **Cost and Financial Model:**

- Subscription-first model with a “first box free” sampling strategy to convert new users.
- Cost efficiencies through in-house production and optimized logistics.
- Break-even projected at **5,000 active subscribers**, with profitability growing as subscriber base expands.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• 2,500+ customers across metro and tier 2 cities</li> <li>• 50,000 pads sold through e-commerce and offline events</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Offers a high-performing, sustainable product that fits seamlessly into existing disposal systems.</li> <li>• Reduces exposure risks for waste handlers by minimizing leakage.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• No need for behavior change or special infrastructure—works with mixed municipal waste streams.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• 91% degradation in 8 months under landfill conditions; eliminates SAPs and plastic waste burden.</li> </ul>

## Enablers & Barriers

» **What worked:**

Strong product-led model, early consumer testing, validation, and acceptance, scientifically validated landfill degradation results.

» **Challenging:**

- High R&D costs and complexity of balancing performance with biodegradability.
- Setting up India-based manufacturing capacity and ensuring consistent quality of products.
- Competing with low-cost conventional pads in a price-sensitive and competitive Indian market.

## Sustainability and Scale

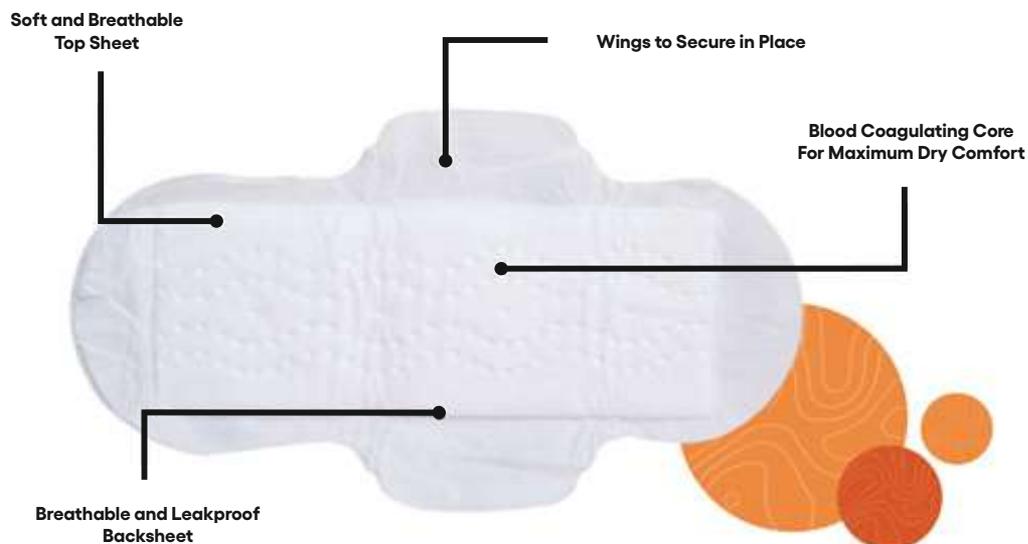
- » **Sustainability:** Subscription-led recurring revenue will facilitate financial viability.
- » **Scalability Potential:** Expanding across tier 1 and 2 cities, exploring co-branded partnerships, and growing in-house production capacity for cost control and quality.
- » **Replicability:** Model can scale in other markets with similar waste infrastructure challenges and consumer needs.

## Key Takeaways

- » **Material-Led Innovation:** Papaya shifts the solution upstream, designing a pad that works with existing waste systems to minimise negative environmental impacts.
- » **Multi-Dimensional Impact:** The product delivers performance, safety, and environmental responsibility without requiring systemic overhaul or behavioural shifts by users.
- » **Scalable Model:** Subscription-first approach combined with in-house manufacturing supports cost efficiency, user retention, and long-term impact.

## Contact / Further Information

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All naturally derived ingredients | 100% Plastic-Free | Non-toxic | Fragrance Free | Soft and Breathable

Section: Menstrual Product Solutions

## Gopad: A Bio-Transformative Solution to Menstrual Waste Pollution

Organization

Real Relief India Pvt. Ltd.

### Context & Challenge

- » **Region:** Targeted for rural and peri-urban India, with early partnerships in Rwanda.
- » **The Challenge:** A need for interventions that addresses the lack of reliable waste collection and safe disposal infrastructure and environmental harm caused by conventional plastic-based single use pads.

### The Intervention

» **Approach/Model:**

Gopad is a patented, bio-transformable single use pad designed to break down safely in open environments within two years, without leaving microplastics or toxic residue. The innovation embeds biotransformation technology directly into plastic components, turning them into a microbe-digestible wax at end of life.

» **Key Activities:**

- Product development and validation: Lab-tested for absorbency, safety, and biodegradability.
- Early pilots: Initial deployments and feedback collection in India and Rwanda.
- Stakeholder engagement: Collaboration with NGOs, SHGs, teachers, and health workers to enable awareness and distribution.
- Policy advocacy: Pushing for recognition and incentives for biodegradable menstrual products in India.
- IEC model: Campaigns in schools and communities using IEC kits, local champions, and interactive sessions.

» **Partners & Stakeholders:**

- **Technical partners:** Polymateria (technology partner for biotransformation process); Fibriltex (manufacturing partner, co-developing pad components); Indorama (Developer of nonwoven materials used in Gopad).
- **Community:** To use the product to provide feedback
- **NGO and institutional partners:** To support rollout of the novel product

### » Resources and Innovations:

- Funded through institutional partnerships, CSR, and investor support, with localized (India-based) production for cost efficiency.

### » Cost and Financial Model:

- Per pack cost (8 pads): INR 37–76 depending on size, model, and order quantity
- Revenue streams: Retail (pharmacies, online), institutional sales (NGOs, CSR programs, government schemes).
- Cost efficiency achieved through local manufacturing and bulk raw material sourcing.

## Results and Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Yet to commence operations</li> <li>• Early introduction phase; structured field validation and pilots underway</li> <li>• Positive NGO and community feedback on usability and environmental benefits.</li> <li>• Strong interest from rural health educators and local champions in early deployments.</li> <li>• Cross-sector validation - technology adopted in the UK, European Union, and Malaysia in other single-use plastic applications.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Increased access to menstrual products for adolescents and low-income women</li> <li>• Empowerment through community-led distribution networks</li> <li>• Lays the foundations for scalable, community-integrated waste management solutions</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduction in open dumping/burning of sanitary pads in underserved areas</li> <li>• Safe disposal without infrastructure dependence</li> </ul>

## Enablers & Barriers

### » What worked:

- Proven biotransformation technology used in other sectors.
- Strong community partnerships and global production scalability.

### » Challenging:

- Lack of clear biodegradable pad standards in India.
- Difficulties explaining biodegradation process to end users and policymakers.
- Last-mile distribution in rural/underserved areas.

## Sustainability and Scale

- » **Sustainability:** Designed for local manufacturing; does not rely on donor funding.
- » **Scalability Potential:** Easily replicable globally as production can be set up in existing sanitary pad manufacturing lines by adding the biotransformation masterbatch.
- » **Geographic Scope:** Scale-up planned across rural India and other low-waste-infrastructure regions, with global expansion potential.



## Key Takeaways

- » **End-of-Life Innovation:** Embeds safe decomposition in product design, bypassing need for specialized disposal and waste management infrastructure, and additional behavior change interventions.
- » **Community-Centered Rollout:** Integrates product distribution with awareness-building through schools, community-based groups, and NGOs.
- » **Scalable Model:** Low-cost, easily localized manufacturing makes Gopad replicable globally. The product can also be incorporated into Government led policy and program initiatives.

## Contact / Further Information

Contact person	Email	Website and other online resources
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## Section: Menstrual Product Solutions

# Self-disintegrable, Biodegradable, Flushable Sanitary Pads

### Organization

**Anabio Technologies Pvt Ltd**

## Context & Challenge

- » **Region:** Solution applicable in regions with twin pit and non-flush toilets
- » **The Challenge:** Lack of on-site solutions that overcome the limitations associated with waste segregation and end of life treatment, while simultaneously meeting menstrual product needs.

## The Intervention

### » Approach/Model:

This 'self-disintegrating' and biodegradable sanitary pad will naturally biodegrade in existing on-site toilets and sewage systems. Currently no such commercial product exists in the Indian menstrual product market. Anabio has developed a patent-pending sanitary pad that is stable in use, dissolves in 30 seconds when flushed, and biodegrades safely in sewage systems—unlike conventional pads that clog plumbing and create waste. This innovation eliminates the need for menstrual waste management across the value chain from disposal to end of life treatment. The product is being developed in India with a proprietary blend of water-soluble polymers and cellulosic materials. The final product combines high absorbency with instant disintegration when placed in water.

### » Key Activities:

The intervention is at the product–market fit stage, with milestones including:

- Consumer trial proposed with 5,000 women across age groups, geographies, and social strata. Currently, consumer trials are underway, with 600 women. Feedback sought from users includes their perspectives on absorbency, comfort, rash-free experience, willingness to switch from their current products to this new product, and flushability.
- Flushability testing lab to assess performance in diverse toilet settings (pit latrines, Indian and western toilets, railway toilets, etc.).
- Field flushability studies in at least 20 buildings to evaluate performance across plumbing systems.
- Advocacy for national flushability standards in India.

## » Partners & Stakeholders:

- Community: Individuals and households
- **Resources:** Thus far, Anabio has received support in the form of grants from institutional donors or philanthropies, government financing, and founder-backed funds.
- **Cost of Implementation and Financial Model:** Each pad will initially be priced at INR 20-25, and will be later reduced to ~15 INR when production reaches economies of scale.

## Results and Impact

Anabio's flushable pad is yet to be launched commercially. The company however seeks to bring about impact through this innovative menstrual product as shown in the table below.

## Intended Outcomes

Dimension	Results & Impact
<b>Reach</b>	Consumer trials ongoing with 600 women (aiming to reach 5000 women)
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Promote privacy and dignity as women can flush pads discreetly, without wrapping or hiding their pads or searching for disposal solutions.</li> <li>• Reduce stigma as it eliminates embarrassment around menstrual waste management.</li> <li>• Easy to implement and accessible as disposal of the menstrual product is instant and on-site</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Enable safer working conditions and dignity of labour as sanitation workers do not need to handle menstrual waste.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Eliminate the need for collection, transport and end of life treatment of menstrual waste.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduce contamination of land, water and air.</li> <li>• Potentially reduce carbon emissions by 70% compared to available sanitary pads.</li> <li>• Menstrual pads safely break down within sewage systems, leaving no plastic waste.</li> </ul>

## Enablers & Barriers

### » What worked:

- The product is yet to be launched.

### » What was Challenging:

- Flushability and disposability is a grey area in policy and regulatory frameworks in India and globally, with limited guidance on product quality standards. This can pose challenges for market entry and sales, as well as advocacy efforts with the Government to include standards for such products.
- Lack of funds to support product innovation, piloting and rollout.

### Sustainability and Scale

- » **Sustainability:** The product is yet to be launched commercially
- » **Scalability Potential:** Anabio plans to commercially launch flushable pads in the Indian market in 2025-26, and expand globally in 2028. They also plan to explore related product lines such as adult and baby diapers by 2028. They plan to market the product through their website, e-commerce, Q-commerce platforms, offline distributions, and through CSR and Government distribution efforts.



### Key Takeaways

- » **Game-changing innovation:** A patent-pending flushable and biodegradable sanitary pad that dissolves in 30 seconds, eliminating the need for menstrual waste management across the value chain.
- » **Multi-dimensional impact:** Enhances women's privacy and dignity, removes unsafe and undignified waste-handling for sanitation workers, and markedly reduces environmental contamination and CO<sub>2</sub> emissions.
- » **Scalable potential:** With plans to launch in India by 2025–26 and expand globally, the model can expand menstrual waste management solutions and inform existing standards for menstrual products to consider criteria for flushability.



### Further Information

Contact person	Email	Website and other online resources
Mithun Shah CEO and Founder	mithun.shah@anabio.in	Website: <a href="https://flushforward.anabio.in/">https://flushforward.anabio.in/</a> YouTube: <a href="https://youtube.com/watch?v=alq0hA2e4IEandfeature=youtu.be">youtube.com/watch?v=alq0hA2e4IEandfeature=youtu.be</a>

Section: Menstrual Product Solutions

## Rnisarg Foundation: A Multi-Pronged Approach to Menstrual Waste Management

Organization

Rnisarg Foundation

### Context & Challenge

- » **Region:** Mumbai, Thane, Raigad, Jawhar, Chikhaldara, Parbhani (Maharashtra). Intervention cover urban, peri-urban, rural, and tribal areas
- » **The Challenge:** Key gaps included stigma and lack of awareness, absence of convenient and economical solutions, and poor integration of menstrual waste management in municipal planning.

### The Intervention

#### » Approach/Model:

RNisarg Foundation's approach is comprehensive, combining:

- Waste reduction at source by promoting menstrual cups and reusable pads
- Behaviour change through community engagement, peer-led education, and regular follow-ups
- Infrastructure redesign with “Sanitary Pad-Free Community Toilets” to prevent accumulation of pad waste
- Segregation and safe treatment of waste through door-to-door collection systems integrated with municipal waste operations and treatment at plasma plants

#### » Key Activities:

- **Project Sakhi:** Promotion of menstrual cups through a healthcare-driven model (with ASHA workers trained and incentivized to educate women, with structured 3-month support).
- **Sanitary Pad-Free Toilets:** Redesigned community toilets, with provisions to provide menstrual cups and awareness support to reduce on-site waste.
- **Sanitary Waste Collection System:** Daily free pickup service for households, schools, hostels, and parlours across 25 wards (BMC) and pilot in Thane Municipal Corporation, with colour-coded dustbin liners and end of life plasma treatment.
- **Awareness and IEC:** Culturally sensitive workshops, live product demos, digital support via WhatsApp, YouTube, and teleservices for FAQs.

**Capacity Building:** Training ASHAs, Anganwadi workers, and community leaders to normalize conversation around menstruation, reusable menstrual products, and support adoption and sustained use of reusable products.

» **Partners & Stakeholders:**

- Government: Brihanmumbai Municipal Corporation (BMC), Thane Municipal Corporation (TMC)
- CSR Partners: Financial support for awareness, product distribution, and infrastructure pilots
- Community and Institutions: Schools, hostels, parlours, SHGs, local leaders
- Peer Educators: ASHAs, Anganwadi workers, and volunteers
- Technical Experts: Guidance for plasma pyrolysis treatment and monitoring systems



» **Resources and Innovations:**

- Dedicated software platforms for monitoring outreach, tracking cup adoption, and waste pickup routes
- IEC materials in local languages, product demos, and myth-busting sessions
- Integration of waste collection into municipal SWM systems with ward-wise performance ranking
- Tech-enabled dashboards for real-time tracking and course correction

» **Cost of Implementation and Financial Model:**

- Cost per woman: ₹800–₹1000 for menstrual cup distribution, training, and follow-up
- Cost per household (sanitary waste registration): ₹200 (one-time)
- Funding Model: CSR-driven with municipal co-funding for operations and Operations and maintenance.
- Long-term vision is municipal integration and community ownership to sustain low-cost operations and reduce waste logistics needs through product adoption.

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• 50,000+ women and adolescent girls reached</li> <li>• 12,000+ women adopted menstrual cups, avoiding ~1.4 million disposable pads annually</li> <li>• Daily sanitary waste collection for 1 lakh+ households</li> <li>• Segregation systems in 80 schools, 50 hostels, 1,000 parlours, 6 public toilets</li> <li>• 1,500 trainers created (mostly ASHA workers)</li> <li>• 200 trained Telesakhis to support users</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Shift from single use pad use to menstrual cups, reducing waste volumes</li> <li>• Cleaner, safer public toilets with up to 80% less visible menstrual waste</li> <li>• Reduced drain blockages and unsafe disposal practices</li> <li>• Improved menstrual health, savings of ₹12 lakh annually for women collectively</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Municipal adoption of segregated collection and plasma treatment</li> <li>• Structured documentation and performance tracking used by BMC for planning</li> <li>• Integration of menstrual waste management into city sanitation systems</li> </ul>

## Enablers & Barriers

### » What worked:

- Healthcare-led approach with trusted ASHA workers for menstrual health educators
- Free and supported menstrual cup distribution with follow-up over three menstrual cycles
- Integration with municipal systems for structured, sustained collection
- Use of technology for monitoring, auditing, and community support

### » Challenges Faced:

- Cultural taboos and resistance to menstrual cup adoption
- Logistical complexities in household pickup across dense urban areas
- Need for sustained CSR and municipal alignment for scale-up
- Digital onboarding of field staff

## Sustainability and Scale

### » Sustainability Drivers:

- Cup adoption reduces recurring waste volumes and Operations and maintenance costs for waste management solutions
- Community-led peer education model ensures continuity
- Municipal integration ensures long-term institutionalization

### » Scalability Potential:

- Modular, replicable model for urban and peri-urban India
- Potential to expand across Maharashtra and other cities
- IEC tools and software designed for easy adoption and scale

**घरगुती सॅनिटरी आणि विशेष काळजीयोग्य कचऱ्याचे व्यवस्थापन**  
फेकू नका... बीएमसीकडे सोपवा !

**काय समाविष्ट आहे?**

- वैयक्तिक स्वच्छतेची संबंधित कचरा
- कालबाह्य औषधी
- व्यक्तिगत आरोग्य वापरानंतरचा कचरा
- वॉक्सिंग स्ट्रिप्स, केस

**कोण नोंदणी करू शकतो?**

- सहकारी गृहनिर्माण संस्था (हाऊसिंग सोसायटी)
- शृंगार केंद्र (बुटी सलून)
- शैक्षणिक संस्था
- महिला वसतिगृह

**नोंदणी करा**

- टूथ क्रेड स्कॅन करा
- अर्ज भरा

**वर्गीकरण, संकलन आणि सुरक्षिततेने साठवणे**

- बाँत घर्षकन
- स्वच्छतेची साठवणे

**दिवानिर्देशन**

- रशियानी / गुरुकाम्भार
- घर व्यवस्थापन कर्मचारी
- स्वच्छता कर्मचारी

**बीएमसी ला द्या**

- इलेक्ट्रॉनिक सोपवणे
- ठराविक निवड्या विश्वीमध्ये

**त्वरित नोंदणी करा!**

प्रक्रिया

## Key Takeaways

- Waste reduction at source (through menstrual cup promotion and use) combined with safe disposal is a powerful strategy for systemic menstrual waste management.
- Community and municipal partnerships are key to sustainability and scale.
- Tech-enabled monitoring strengthens accountability and replicability.

## Further Information

Contact person	Email	Website and other online resources
Dr Lata Ghanshamnani	Support@rnisargfoundation.com	Project BMC :https://sway.cloud.microsoft/In8No1XPYU64ltHI?

Section: Menstrual Product Solutions

## Baala Pads: A Sustainable Solution to India's Menstrual Waste Crisis

Organization

Project Baala

### Context & Challenge

- » **Region:** 60+ districts across 25+ states of India; pockets in Nepal, Ghana, Tanzania, Kenya, South Africa
- » **The Challenge:** High dependence on single-use pads and their consequent unsafe disposal and waste management, which when combined with stigma, poor awareness, and lack of waste infrastructure, causes avoidable health risks and environmental pollution.

### The Intervention

#### » Approach/Model:

Baala's approach centres on the promotion of reusable cloth pads as a waste reduction strategy. The distribution of reusable cloth pads is combined with a robust, culturally sensitive behavior change and education model. Their approach emphasizes waste minimization, menstrual health literacy, and empowerment.

#### » Key Activities:

- **Product distribution:** Reusable pads (that can be washed and reused for up to two years) distributed to underserved and marginalized menstruators.
- **Awareness and education:** Sessions conducted in schools and communities.
- **Behavior change facilitation:** Peer educators trained as Menstrual Health Champions to sustain adoption.
- **Livelihood model:** Training community-based women entrepreneurs to sell and promote reusable products.
- **Advocacy:** Partnership with local governments to integrate menstrual health into sanitation and health programs.

#### » Partners & Stakeholders:

- Community champions
- Implementation partners: ASHA and Anganwadi workers, NRLM groups, schoolteachers, parents, sanitation workers
- Support staff: Transport vendors and recycling staff
- NGOs: Grassroots NGOs
- Government: District health and education departments
- Donors and Investors: CSR partners

» **Resources and Innovations::**

- Co-designed pads optimized for rural context (comfort, absorbency, longevity).
- IEC materials in multiple languages with games and storytelling for cultural sensitivity.
- Livelihood model enabling income generation for women entrepreneurs.

» **Cost of Implementation and Financial Model:**

- **Cost per kit:** ~ INR 210 for a set of reusable pads lasting up to 2 years.
- **Revenue model:**
  - **90% of revenue from B2B:** Corporate, institutional, and government funding (CSR and state programs).
  - **10% of revenue from B2C:** Direct sales to menstruators through trained women entrepreneurs and retail networks.



**Results & Impact**

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• 3 million reusable pads distributed</li> <li>• 8,000+ workshops conducted in schools and communities</li> <li>• 1million + women and girls reached across 4 countries</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• 73% adoption of reusables after 18 months (rural + urban)</li> <li>• Disposable pad usage dropped from 96% to 37% in project sites</li> <li>• Improved school attendance and participation</li> <li>• Normalization of menstruation and reduction of stigma</li> <li>• Safer waste management practices: less open dumping, burning, flushing</li> <li>• Stronger community engagement with women-led facilitation</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• \$1 invested yields \$10.43 in health, economic, and environmental benefits</li> </ul>

**Enablers & Barriers**

» **What worked:**

- Context-sensitive IEC material in local languages to enable menstrual health and hygiene education
- Trusted implementers in the form of community-based NGOs, community facilitators and peer educators

- Low-cost, durable reusable pads that are acceptable and affordable
- Institutional partnerships for structured grants that enable comprehensive rollout of the intervention

» **What was Challenging:**

- Funding discontinuity after grant periods concludes
- Limited initial support from decision makers and some communities (given misconceptions and apprehensions related to reusable products)
- Challenges related to the hygienic use, washing, drying and storage of reusable pads in regions with heavy rainfall, limited water supply, and deeply entrenched socio-cultural norms

**Sustainability and Scale**

» **Sustainability Drivers:**

- Low-cost, long-lasting reusable pads that significantly reduce recurring expenditure associated with single use products
- Community ownership via peer educators ensures sustained usage
- Integration with schools and health systems anchors intervention locally
- Entrepreneur-led B2C model generates livelihood and support local access

» **Scalability Potential:**

- Replicable, low-infrastructure model suitable for rural, urban, and tribal settings
- Currently scaling to Northeast India and tribal belts
- Government collaborations exploring state-wide adoption
- R&D pipeline working on 5-year reusable and biodegradable pads to reach wider audiences

**Key Takeaways**

- Waste prevention at source is a powerful strategy to address India's menstrual waste burden alongside other waste management interventions
- Community-driven education models build trust and sustain behavior change
- Low-cost, yet quality products make sustainable menstruation financially viable for underserved and marginalized populations
- Public-private partnerships amplify reach and enable scale

**Further Information**

Contact person	Email	Website and other online resources
Dr. Ankita Gupta	ankita.gupta@projectbaala.com	<a href="https://projectbaala.com/">https://projectbaala.com/</a>

Section: Menstrual Product Solutions

## RUTU Enterprises: Awareness and Promotion of Sustainable Menstruation Options

Organization

RUTU Enterprises

### Context & Challenge

- » **Region:** Maharashtra (Dhule, Beed, Akola, Solapur, Pune), MP, Rajasthan, Delhi, Kerala, Chennai, Goa, and international outreach (China, Nepal, Malaysia, Mauritius). The intervention covers rural, peri-urban, urban, and slum areas.
- » **The Challenge:** Sanitation workers who deal with waste are often women who face numerous risks when dealing with menstrual waste without any protection or systems in place. As the use of single use pads increases, the risk to waste workers increases.

### The Intervention

#### » Approach/Model:

RUTU Enterprises takes a waste prevention approach, advocating for sustainable menstruation through reusable products (menstrual cups, cloth pads, padded panties) combined with robust education and behavior change.

The intervention integrates awareness sessions, product demonstrations, solutions to enable purchase of products (payment in installments), and ongoing follow-ups and hand holding support. This comprehensive approach empowers menstruators to make informed choices with regard to menstrual products, and select products that can significantly reduce menstrual waste generation.

#### » Key Activities:

- **Awareness and Education:** face-to-face workshops in schools, workplaces, slums, and rural communities, covering menstrual health, menstrual products, hygienic product use, and myth-busting.
- **Product Access:** Sale of menstrual cups, cloth pads, and period panties at affordable prices; payment options are provided for low-income users.
- **Training Peer Educators:** Engaging Anganwadi Sevikas and existing users as ambassadors to guide new users and normalize conversations about menstruation.
- **Live Demonstrations:** To demonstrate the correct use of reusable products (e.g., cup folding techniques, cloth pad washing/drying, safe storage practices).
- **Digital Outreach:** Virtual training during COVID-19 and international sessions reaching up to 500 participants at once.

» **Partners & Stakeholders:**

- **Community Organizations:** Women's collectives for outreach and trust-building
- **Government community health workers:** Anganwadi Sevikas and public health workers for last-mile delivery and follow-ups
- **Educational Institutions:** Schools and colleges for adolescent education
- **Healthcare Professionals:** Gynecologists referring patients to RUTU for guidance
- **International Partners:** NGOs and women's groups enabling cross-border impact (Nepal, Malaysia, China, Mauritius)

» **Resources and Innovations::**

- **Product basket:** Comprising medical-grade silicone menstrual cups, and reusable cloth pads with breathable leak-proof layers
- **Installment Sales Model:** Financially inclusive approach enabling rural and low-income women to access products at affordable costs, in a manner that enables them to pay for products
- **Peer-Led Sessions:** Leveraging existing users as trainers to boost trust and adoption
- **Paperless, Low-Cost Model:** Growth via word-of-mouth, social media, and virtual training, without any large communications or brand building campaign

» **Cost of Implementation and Financial Model:**

- Cloth Pad Kit + Training: ₹700–₹1,500 per user
- Menstrual Cup + Training: ₹400–₹800 per user
- Training and IEC: ₹40–₹60 per person (includes travel, trainer time, demos, follow-ups)

» **Revenue Model:**

- B2C of menstrual cups, reusable pads, and period panties
- Bulk orders from schools, NGOs, corporate offices
- Paid training programs for community groups
- Reinvestment into education and customer support to ensure high adoption and satisfaction

**Sustainability:**

Reusable products reduce recurring costs for users and eliminate waste management costs for municipalities. Low marketing costs and community-led sales keep operations financially viable and scalable.

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>75,000+ women trained on sustainable menstrual hygiene</li> <li>2 lakh+ cloth pad users and 9,100+ menstrual cup adopters across India and international markets</li> <li>Global sessions held in China with 500+ participants per session</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>Significant shift from disposable to reusable products</li> <li>Taboo reduction and normalization of menstrual conversations</li> <li>Savings on monthly menstrual expenses, reducing economic burden</li> <li>Improved hygiene and health outcomes (fewer rashes, infections)</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>Millions of disposable pads prevented from entering landfills or being burned</li> <li>Reduced GHG emissions from manufacturing, packaging, and disposal of pads</li> <li>Lower exposure to toxic emissions and microplastics</li> </ul> <p><i>These are anticipated, and not measured by the intervention</i></p>

## Enablers & Barriers

### » What worked:

- Community trust via Anganwadi Sevikas and peer trainers
- Transparent, brand-agnostic approach to product choice that prioritised used needs and preferences
- High-quality, safe products that built confidence in opting for reusable products



### » Challenges Faced:

- Breaking myths and socio-cultural norms around menstrual cups and cloth pad use
- Access to schools and workplaces initially restricted due to stigma
- Logistical challenges faced in delivering the products to remote and international locations
- Funding constraints with a lean team and self-reliant model

## Sustainability and Scale

### » Sustainability Drivers:

- Community ownership via peer-led model
- Low recurring cost due to reusables lasting 3–10 years
- Growing network of gynecologists recommending reusable products

### » Scalability Potential:

- Model is modular and adaptable to diverse geographies
- Virtual training enables rapid national and international expansion
- Positioned to scale with growing awareness of sustainable menstruation and supportive policy environment



## Key Takeaways

- Waste reduction through reusables is a cost-effective, long-term solution to India's menstrual waste problem.
- Community-driven, trust-based models are essential for adoption and retention.
- Women-led, socially grounded enterprises can catalyze large-scale environmental and behavioral change.

## Further Information

Contact person	Email	Website and other online resources
Dr. Seema Khandale	seemakhandale@gmail.com	<b>Website:</b> <a href="http://www.rutuenterprises.com">www.rutuenterprises.com</a> <b>Facebook Page:</b> <a href="https://www.facebook.com/rutuenterprises">https://www.facebook.com/rutuenterprises</a> <b>Instagram Handle:</b> @rutu_enterprises <b>YouTube Channel:</b> <a href="https://www.youtube.com/@RutuEnterprises">https://www.youtube.com/@RutuEnterprises</a>

Section: Menstrual Product Solutions

## Towards Zero-Waste: Creating 200 Menstrual Waste-Free Villages in Tamil Nadu

Organization

Gramalaya

### Context & Challenge

- » **Region:** Pudukottai, Tamilnadu
- » **The Challenge:** Financial constraints, limited education, and strong cultural taboos restrict access to proper menstrual products and knowledge. Due to stigma and lack of open discussion, awareness of safe menstrual health practices remains minimal. Unsafe disposal methods, such as open burning, shallow burial, or discarding in fields and water bodies posed serious health risks, harm the environment, and threaten community hygiene.

### The Intervention

#### » Approach/Model:

A comprehensive behaviour change and awareness-based intervention focused on eliminating menstrual waste at the source by promoting exclusive use of reusable cloth pads.

#### » Key Activities:

- Conducted awareness sessions using culturally sensitive IEC tools (hygiene songs, flipcharts, snake and ladder games, street plays)
- Promoted exclusive use of reusable cloth pads through community-wide education
- Trained SHG women in reusable pad manufacturing and distribution
- Engaged sanitary workers on safe disposal practices and environmental hazards
- Established volunteer-based resale network for sustainable distribution

#### » Partners & Stakeholders:

PRI members, school teachers, SHG women, Anganwadi workers, sanitary workers, local government officials, frontline health workers, community volunteers, NGOs, technical experts, menstrual health educators

#### » Resources and Innovations:

#### Cost of implementation and financial model:

- Each reusable cloth pad kit (4 pads) costs ₹520, produced by trained SHG women, with community volunteers purchasing at ₹450 and reselling at ₹520 for ₹70

commission per kit. Implementation costs covered training, awareness materials, IEC tools, and village outreach, while avoiding expensive infrastructure like incinerators or disposal systems.

- The model creates sustainable income for women while eliminating ongoing Operations and maintenance costs through source elimination, with pads lasting 2-3 years creating long-term recurring revenue.

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	Over 100s of menstruating women and adolescent girls across 200 villages with 100% adoption of reusable cloth pads
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Complete elimination of single-use sanitary pad waste across all 200 villages</li> <li>• Zero open burning and field dumping of menstrual waste in project areas</li> <li>• Teachers and school health clubs integrated menstrual health into ongoing hygiene education</li> <li>• Community transformation from taboo topic to shared responsibility and symbol of rural progress</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• PRI members, frontline health workers, and local officials actively sustaining initiative through follow-ups and issue resolution</li> <li>• SHG women became local entrepreneurs manufacturing and distributing reusable pads</li> <li>• Program integrated into local governance and health systems for long-term sustainability</li> <li>• Model being presented to government departments for inclusion in MHM and village sanitation schemes</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Initiative drew attention from other districts and states for training and model replication</li> <li>• Program under consideration for integration into state-level rural health and sanitation programs</li> <li>• Model being documented for policy advocacy and replication in government MHM schemes</li> <li>• Created scalable framework for menstrual waste management through community ownership</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduced plastic pollution through complete elimination of single-use sanitary pad waste and groundwater contamination across 200 villages</li> <li>• Sanitary workers report improved working conditions due to drastic reduction in hazardous waste</li> </ul>

## Enablers & Barriers

### » What worked:

The community-driven approach used local language songs, interactive games, and trusted community leaders to break menstrual taboos and promote behavior change. The smart source-elimination model using reusable cloth pads avoided costly disposal infrastructure while creating sustainable livelihoods through SHG manufacturing and volunteer sales networks. Strong multi-stakeholder engagement involving PRI members, teachers, health workers, and sanitary workers transformed menstruation from a women's issue into a shared community priority, ensuring widespread acceptance and long-term sustainability.

### » Challenges Faced:

The intervention faced significant cultural resistance due to deep-rooted menstrual taboos, particularly when engaging male stakeholders like PRI members and teachers in open discussions about menstruation. Financial constraints made reusable pads unaffordable for many women and girls despite subsidized rates, while geographical dispersion across remote villages complicated logistics and follow-up activities. Additional operational challenges included lack of electricity in certain areas that hampered audio-visual education sessions, requiring continuous sensitization efforts and flexible implementation strategies tailored to each village context to overcome resistance and build acceptance.



## Sustainability and Scale

### » Sustainability:

The initiative achieves sustainability through community ownership with SHGs manufacturing pads, volunteers earning margins from sales, and trained PRI members, teachers, and health workers continuing awareness efforts without external funding dependency. The decentralized, low-cost model embedded in local governance systems ensures long-term viability.

### » Scalability Potential:

The program demonstrates high scalability due to its grassroots-led operations, minimal infrastructure requirements, and culturally adaptable IEC tools, already attracting interest from other districts and states for replication through government sanitation programs.

## Key Takeaways

- **Source elimination approach** – Eliminating menstrual waste at source through reusable products rather than costly disposal systems
- **Community entrepreneurship model** – SHG-based manufacturing and volunteer sales network creates sustainable livelihoods while ensuring product access
- **Culturally sensitive IEC tools** – Local language songs, games, and interactive tools effectively address taboos and promote behavior change
- **Multi-stakeholder integration** – Involving PRI members, teachers, and health workers transforms menstruation from women's issue to community priority

### Further Information

Contact person	Email	Website and other online resources
Preethi Damodaran MHM Director, Gramalaya	preethigramalaya@gmail.com	<a href="https://gramalaya.org/">https://gramalaya.org/</a>

Section: Menstrual Product Solutions

## Laal Samvaad: Reimagining Menstrual Waste in Eco-Sensitive Himalayas

Organization

**Waste Warriors Society**

### Context & Challenge

- » **Region:** Himachal Pradesh and Uttarakhand
- » **The Challenge:** The Himalayas are already grappling with unmanaged waste streams, and the lack of safe menstrual waste systems further strains the environment and communities.



### The Intervention

#### » Approach/Model:

“Laal Samvaad” is a community-driven initiative combining **behaviour change communication (BCC), awareness generation, and promotion of sustainable alternatives.**

#### » Key Pillars of the Model:

- **Open conversations** about menstruation and body literacy through schools, Mahila Mandals, Anganwadis, and home-based meetings.
- **Access to reusable menstrual products** (cups, cloth pads) supported by pro-bono and subsidized partnerships.
- **Segregation at source** embedded within ongoing solid waste management systems.
- **Capacity building of local women entrepreneurs (Paryavaran Sakhis)** to act as advocates and trainers.
- **Continuous engagement** through home visits, WhatsApp groups, and follow-ups.

#### » Key Activities:

- 3-part workshop series covering body literacy, taboos, environmental impact, and sustainable product options.
- Community-led cloth pad stitching workshops using local materials.
- IEC development through story-based period booklets, short films featuring community members, interactive activities (Trash Talk, Journey of an Egg, quizzes).
- Distribution of menstrual kits and reusable products, coupled with product demonstration and peer support.
- Collaboration with Gram Panchayats, Mahila Mandals, and schools for mobilization.

### » Partners & Stakeholders:

- Gram Panchayats, Mahila Mandals, Anganwadis: Local mobilization, session facilitation.
- Project Baala, Boondh, Goonj, Namaskriti, Pee Safe: Product support (free/subsidized).
- CSR Partners: HDFC Bank Parivartan, Smith & Nephew, LIC supported outreach.
- Paryavaran Sakhis: Local women trained as menstrual health advocates.
- Schools: Hosted workshops and procured cloth pads for student emergency use.

### » Resources and Innovations:

- Locally stitched cloth pads designed with user feedback for comfort and adoption.
- Narrative-driven IEC: Use of dolls, storytelling, community theatre, short films.
- Context-specific messaging: Financial savings, health risks, and environmental framing tailored to the audience.
- Gender-inclusive approach: Sessions held for men to normalize conversations around menstruation.

### » Cost of implementation and financial model:

- Cost of Implementation & Financial Model
- Products: Sourced through pro-bono and subsidized contributions.
- Funding: CSR partners support the broader SWM programme under which MHM sits.

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• 1,265 menstruators engaged over two financial years (62% in Himachal Pradesh).</li> <li>• 350+ menstrual kits distributed, diverting 130 kg of sanitary waste in five months.</li> <li>• Workshops: 19 workshops (905 menstruators) in FY 2022–23, 58 workshops (1,633 menstruators) in FY 2023–24, ongoing in FY 2024–25.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Adoption of reusables: 45+ women in Gaichwan village shifted to menstrual cups.</li> <li>• Increased segregation of menstrual waste.</li> <li>• Breaking menstrual taboos through repeated engagement.</li> <li>• Stronger relationships with local influencers and higher participation from women and girls.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• 46 metric tonnes of waste diverted in Govind Wildlife Sanctuary (FY 2022–24) → avoided 3.16 MT CO<sub>2</sub> + 1.2 MT methane emissions.</li> <li>• 393 metric tonnes of waste diverted across 10 panchayats in Dharamshala/Bir → avoided 27.5 MT CO<sub>2</sub> + 10.8 MT methane emissions.</li> </ul>

## Enablers & Barriers

### » What worked:

- Community trust built through SWM initiatives and women trainers.
- Subsidized product partnerships lowered cost barriers.
- Continuous feedback loop refining messaging and product offerings.



### » Challenges Faced:

- Geographic remoteness and harsh weather affecting access.
- Lack of dedicated funders for awareness and follow-up.
- Persistent cultural stigma requiring sensitive, small-group engagement.
- Logistical barriers – electricity, lack of community spaces, seasonal disruptions.

## Sustainability and Scale

### » Sustainability:

- Integration with existing SWM systems for long-term relevance.
- Local women (Paryavaran Sakhis) as advocates to ensure continuity.
- Reusables reduce waste burden and costs for households and panchayats.

### » Scalability Potential:

- Highly replicable model for other eco-sensitive areas.
- Toolkit and IEC resources adaptable for diverse geographies.
- Can be scaled as localized movements within SWM interventions across India.

## Key Takeaways

- Behaviour change + reusables + integration into SWM systems can transform menstrual waste management in eco-sensitive regions.
- Gender-inclusive, culturally sensitive communication is key to breaking stigma.
- Community trainers and partnerships make adoption sustainable and scalable.

## Further Information

Contact person	Email	Website and other online resources
Khwaish Gupta Diya Batra	khwaish.gupta@wastewarriors.org diya@wastewarriors.org	<a href="https://wastewarriors.org/">https://wastewarriors.org/</a> Menstrual Hygiene Education - मासिक धर्म स्वच्छता शिक्षा (64) Menstrual Hygiene (Narwana Khas) - YouTube (64) Baghni film 2023 - YouTube

Section: Menstrual Product Solutions

## Compostable Pads for Sustainable Menstrual Waste Management

Organization

**Aakar Innovations Pvt. Ltd**

### Context & Challenge

» **Region:**

New Delhi, West Bengal, Odisha, Maharashtra, Karnataka, Hyderabad and Telangana, Bihar.

» **The Challenge:**

Menstrual hygiene management (MHM), environmental safety, and product affordability have long been treated separately, creating health risks for women and environmental damage. Low-income, tribal, and climate-vulnerable communities lack access to safe, sustainable menstrual health solutions, and there is little focus on proper disposal of menstrual waste.

### The Intervention

» **Approach/Model:**

Aakar Innovations developed a multi-layered, community-led model combining the distribution of certified compostable pads, awareness and behavior change programs, and training in safe disposal practices. This integrated approach focuses on dignity, environmental justice, and accessibility across diverse geographies.

» **Key Activities:**

- Distribution of certified compostable Anandi pads through online, retail, and large-scale programs
- Conducting over 8,580 workshops and ToT programs for teachers, health workers, and community leaders
- Implementing low-cost compost pits in schools and communities
- Promoting safe disposal practices by marking used pads with a red dot for respectful handover to waste pickers
- R&D on sustainable absorbent materials like banana fiber and agri-waste

» **Partners & Stakeholders:**

- Government departments (Maharashtra, Karnataka, Telangana, Bihar, NDMC Delhi) and Local Panchayats

- School Management Committees
- Self-Help Groups
- CSR partners
- Community health workers, waste pickers, educators, and private sector distributors.

» **Resources and Innovations:**

- Patented compostable and biodegradable sanitary pads certified by ISO standards.
- Continuous product and process innovation, including bio-glue and developing indigenous absorbent materials.
- Simple composting model designed for low-cost, easy community management without need for skilled labor.

» **Cost of implementation and financial model:**

Anandi compostable sanitary pads require a functional mud compost pit with lid at the community or institutional level. The setup cost typically ranges between ₹4,000 to ₹8,000 per unit, depending on local vermicompost pricing, pit materials, size, labor rates, and site conditions. Periodic additions like baking soda, vermi-compost, cow manure, and limestone cost just INR 800-1000 annually per pit.

The pit requires no electricity, incinerator, or complex machinery.

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Reached over 1.18 million girls and women by providing compostable pads</li> <li>• Trained/educated 576,000+ Teachers, Health Workers, Women and Girls educated through 8,580+ menstrual health workshops, TOT programs across India through our Behavioral Change Program.</li> <li>• Sold and Distributed 106+ million compostable sanitary pads</li> <li>• By free distribution of 39 million Anandi compostable sanitary pads to girls, Aakar Innovations has prevented the emission of approximately ~17,550 metric tonnes of CO<sub>2</sub> into the environment. sustainable community-led solution.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Improved menstrual hygiene behaviors, among adolescent girls</li> <li>• Reduced dependency on plastic-based conventional pads and wider adoption of compost-based disposal models</li> <li>• Safety and dignity for waste pickers, sanitation workers</li> <li>• Increased community ownership of menstrual waste management system</li> </ul>

Dimension	Results & Impact
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>Trained healthcare professionals and Government adoption in Maharashtra, Karnataka, Telangana, Bihar, and Delhi integrated the program into health and education schemes.</li> <li>Improved menstrual hygiene education in schools and communities, contributing to stigma reduction and open dialogue on MHM.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>Inclusion of the model in government health and education frameworks strengthens systemic support for sustainable menstrual hygiene practices.</li> <li>Created a replicable blueprint for low-cost, decentralized menstrual waste management.</li> <li>Promoted policy-level recognition of menstrual waste as a part of sanitation systems, not just a private issue.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>Prevented ~46,089 tons of CO<sub>2</sub> emissions and ~4,862 tons of toxic waste by replacing plastic pads with compostable Anandi pads.</li> <li>Safe composting reduces reliance on harmful disposal methods like incineration or open dumping.</li> <li>Improved menstrual hygiene behaviors and safe disposal practices reduced health risks for women, girls, and sanitation workers.</li> </ul>

## Enablers & Barriers

### » What worked:

- Government adoption of the model
- Simple technology manageable by unskilled individuals
- Multiple revenue streams ensuring financial viability
- Strong community participation and local partnerships
- Active R&D ecosystem improving products and practices

### » What was Challenging:

- Lack of infrastructure such as dustbins in schools
- Space constraints for setting up compost pits
- Need for continuous behavior change and awareness
- Limited access to resources in remote regions

## Sustainability and Scale

### » Sustainability:

The community-led model empowers schools and local groups to manage compost pits using simple, locally sourced materials. Multiple revenue streams including government

programs, CSR partnerships, and commercial sales—support ongoing costs. The approach is designed for easy replication, making it scalable across diverse settings like tribal areas, urban slums, and institutional campuses.

» **Scalability:**

Modular design allows replication in urban, rural, tribal, and institutional settings. Government adoption ensures program



integration into health and education schemes. The model has been implemented across India and in other countries like Nepal, Kenya, and Cameroon.

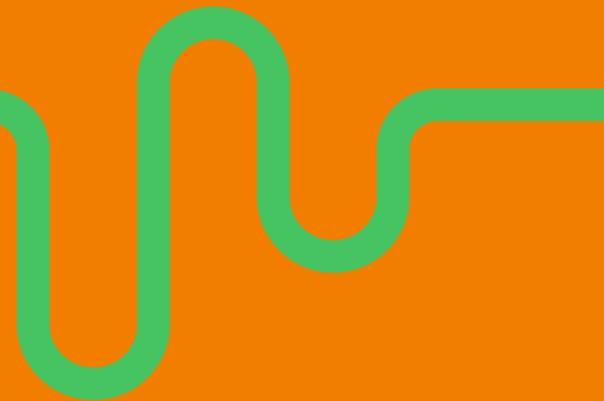
**Key Takeaways**

- **Integrated and community led Approach:** Aakar's integrated solution uniquely combines menstrual health, environmental sustainability, and affordability, shifting focus from just product access to holistic system change. The community-led model builds local ownership of menstrual waste management, making the solution scalable and sustainable without skilled labor.
- **Climate-Smart Solution:** Anandi pads offer a smart, eco-friendly alternative to conventional plastic pads by fully decomposing within 3–6 months under composting conditions.

Further Information		
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# CASE STUDIES

Section: Safe Disposal, Segregation,  
Collection and Transport



## SWaCH Pune Cooperative: Red Dot – For Safety and Dignity

Organization

**SWaCH Pune Cooperative Society Limited**

### Context & Challenge

- » **Region:** Pune, Maharashtra (Urban)
- » **The Challenge:** Sanitary waste in Pune was mixed with other dry waste, contaminating recyclables, and posing serious health risk to waste workers as they manually sorted through soiled pads, diapers, and even needles. Citizens lacked awareness of the importance of source segregation, and there was no structured, hygienic and safe method for sanitary waste disposal.

### The Intervention

#### » Approach/Model:

SWaCH's Red Dot Campaign is a behaviour change and source segregation initiative that empowers citizens to securely wrap sanitary waste in paper, mark it with a red dot, and hand it over safely to waste pickers.

This campaign is deeply rooted in SWaCH's door-to-door collection system, aligning with the Solid Waste Management Rules, 2016 and the Pune Municipal Corporation's solid waste management framework.

#### » Key Activities:

- **Door-to-Door Citizen Education:** Waste pickers trained to conduct awareness sessions during daily collection rounds.
- **Behaviour Change Communication:** Simple, low-cost messaging encouraging households to wrap and mark sanitary waste with a red dot. This initiative was based on the Send it Back campaign (launched in 2013) that emphasized the health risks for sanitation workers, and sent back waste to manufacturers and urban local bodies to reiterate the urgent need to effectively and safely manage this waste.
- **IEC Materials and Campaign Visibility:** Flyers, stickers, posters, and Red Dot branding on pushcarts; public service announcement screened during films in theatres.
- **Segregated Collection and Processing:** Red Dot-marked waste collected separately and sent to India's first dedicated sanitary waste recycling plant. This plant has 4–4.5 tonnes/day capacity, and is currently in its pilot phase.

- **Policy and Advocacy:** Collaboration with the Pune Municipal Corporation for official notification (April 2016) mandating sanitary waste segregation.

#### » Partners & Stakeholders:

- **Urban local body:** Pune Municipal Corporation plays a pivotal role in incorporating this initiative into the ULB's ways of working for waste management and providing logistics support.
- **Waste workers:** The Waste Picker Cooperative SWaCH forms the implementation backbone, daily engagement with citizens).
- **Civil Society and Collectives:** Rotary Club, Lions Club, Parisar support awareness and advocacy.
- **Citizens:** Over 50% of Pune households engaged and actively participating in segregation of sanitary waste.

#### » Resources and Innovations:

- Low-cost solution that required no new infrastructure. It only needs paper and a marker.
- Waste worker-led movement (through a strong cooperative) helped build trust and achieve city-wide penetration.
- Active partnership with the ULB and other key partners formally integrates informal sector waste pickers into municipal solid waste management initiatives.

#### Cost of implementation and financial model:

- **User Fee Model:** Households pay monthly user fees for doorstep waste collection (mandated by the Pune Municipal Corporation), supporting waste picker income, Operations and maintenance costs.
- **Municipal Support:** PMC provides equipment, PPE, and annual administrative costs—saving over ₹100 crore annually in transport and handling.
- **Campaign Costs:** Minimal (printed materials, citizen engagement, press outreach).
- **Sustainability:** Continued compliance driven by direct citizen-waste picker relationship and low-cost operation.



## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>4 million+ citizens reached through awareness and engagement</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>50% of households now wrap and mark sanitary waste; 75% inform waste pickers about its presence</li> <li>Improved health and safety for waste pickers (reduced direct exposure to soiled waste)</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>First city-scale, institutionalized sanitary waste segregation system in India</li> <li>Demonstrated model for other cities seeking to formalize informal waste sectors</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>Strengthened partnership between citizens, waste pickers, and local government</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>3 tonnes of segregated sanitary waste collected daily</li> <li>Cleaner, uncontaminated recyclables, enhancing material recovery rates</li> <li>Reduction of unsegregated sanitary waste entering landfills</li> </ul>

## Enablers & Barriers

### » What worked:

- Simple, universally understandable solution (Red Dot campaign)
- Doorstep engagement and waste collection by trusted waste pickers
- Strong institutional backing from Pune Municipal Corporation and advocacy by SWaCH and partners

### » Challenges Faced:

- Policy alignment and formalization took years of negotiation
- Behaviour change required sustained IEC efforts
- Funding for continued awareness activities remains a need

## Sustainability and Scale

### » Sustainability Drivers:

- User fee model provides financial stability for waste pickers
- Community-cooperative partnership ensures long-term compliance
- Red Dot system embedded in city's SWM framework

### » Scalability Potential:

- Highly replicable, low-cost model for other urban centers in India and beyond
- Already inspiring adoption and replication in multiple cities across India

### Key Takeaways

- Simple, waste worker-led, citizen-friendly interventions can address complex waste challenges at scale.
- Dignity and safety for waste workers are central to sustainable solid waste management systems.
- Partnerships between ULBs, waste workers collectives, and citizens are essential for city-wide implementation and impact.



### Further Information

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## Zero Sanitary Waste Gram Panchayat- Nagawala

Organization

Hasiru Dala

### Context & Challenge

- » **Region:** Nagawala Gram Panchayat, Karnataka
- » **The Challenge:** Menstrual waste was mixed with municipal waste streams, leading to unsafe handling by waste pickers, frequent open burning or dumping, and lack of accountability in Panchayat-level waste management systems.

### The Intervention

#### » Approach/Model:

Hasiru Dala partnered with Nagawala Panchayat to design a **zero sanitary waste model** that mainstreamed menstrual waste into the solid waste management system. The model combined segregation, household-level behaviour change, and Panchayat-led accountability with strong involvement of waste pickers.

#### » Key Activities:

- Household-level awareness campaigns to promote segregation of menstrual waste.
- Introduction of the “**Red Dot**” system for easy identification of sanitary waste.
- Training of waste pickers on safe handling and protection.
- Panchayat resolutions and policy support to adopt zero sanitary waste practices.
- Collaboration with SHGs and schools to expand community awareness.

#### » Partners & Stakeholders:

- Hasiru Dala (facilitation, training, advocacy)
- Nagawala Gram Panchayat (policy and operational ownership)
- Waste pickers (frontline implementation)
- SHGs, schools, households
- Donor/CSR partners (funding and IEC support)

#### » Resources and Innovations:

- Low-cost “Red Dot” innovation for household segregation.
- Waste pickers as central actors and trainers.
- Panchayat-level resolution institutionalising the model.

### Cost of implementation and financial model:

- **Segregation and awareness campaign costs:** minimal, supported by donor funds.
- **Protective equipment for waste pickers:** covered under Panchayat funds.
- **Financial Model:** Panchayat-led system with donor support; no recurring high-cost infrastructure required.

### Results & Impact

The initiative successfully created India's first Gram Panchayat to adopt a **zero sanitary waste resolution**, with strong community participation and policy support. Waste pickers reported safer working conditions, and households adopted segregation at scale, setting an example for replication in other Panchayats.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• <b>100% households</b> in Nagawala Panchayat covered by awareness.</li> <li>• Waste pickers trained and equipped with protective gear.</li> <li>• Schools and SHGs mobilised as partners.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Women began segregating sanitary pads at source.</li> <li>• Reduced stigma and increased open discussion of menstruation.</li> <li>• Waste pickers empowered as leaders in MWM.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Panchayat passed resolution for <b>zero sanitary waste</b>.</li> <li>• Systematic monitoring by Panchayat.</li> <li>• SHGs integrated into awareness drives.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• <b>Policy recognition:</b> Nagawala became India's first zero sanitary waste Gram Panchayat.</li> <li>• Advocacy led to inclusion of MWM in Panchayat planning.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Safer working conditions for waste pickers.</li> <li>• Reduction in open burning and dumping.</li> <li>• Cleaner Panchayat environment.</li> </ul>

### Enablers & Barriers

#### » What worked:

- Panchayat ownership and resolution.
- Waste pickers' leadership in design and delivery.
- Simple, low-cost innovation (Red Dot).

» **What was Challenging:**

- Initial resistance from households to segregate pads.
- Limited infrastructure for final disposal.
- Need for continuous reinforcement of awareness.

**Sustainability and Scale**

- » **Sustainability:** Anchored in Panchayat resolution and waste management budget; reinforced by SHGs and schools.
- » **Scaling Potential:** Replicable across India, especially where Panchayats are active partners in SBM-G.

**Key Takeaways**

- **Policy at Panchayat level** can anchor systemic change.
- Waste pickers as **knowledge leaders** ensure practical implementation.
- Low-cost innovations (Red Dot) enable household behaviour change.
- Linking MWM with Panchayat planning strengthens sustainability.



**Further Information**

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## Dot of Dignity: Simple, Sustainable Solutions for Menstrual Hygiene, Health, and Inclusion

Organization

**Humjoli Foundation**

### Context & Challenge

- » **Region:** Pune, Maharashtra
- » **The Challenge:** In low-income and semi-urban areas, menstrual waste was often disposed of unsafely and thrown in open fields, flushed, burned, or discarded with regular waste. This exposed sanitation workers to health risks and harmed the environment. Women and girls lacked proper materials or guidance to dispose of pads safely. Awareness on menstrual hygiene improved, but disposal remained neglected, especially in rural and low-resource settings. The existing Red Dot Campaign lacked practical solutions for safe disposal.

### The Intervention

#### » Approach/Model:

Humjoli Foundation developed a simple, community-led model focused on distributing eco-friendly red-dot paper disposal bags as part of Period Hygiene Kits. These bags are handmade by local women from self-help groups, combining menstrual hygiene solutions with livelihood generation. The intervention includes structured awareness sessions to promote safe disposal and foster dignity, safety, and environmental care.

#### » Key Activities:

- Production of eco-friendly red-dot disposal bags by local women
- Distribution of Period Hygiene Kits containing disposal bags
- Awareness sessions in schools, communities, and health camps
- Training community women and youth volunteers as peer educators
- Demonstrations on making paper disposal bags from old newspapers
- Door-to-door outreach and small group discussions
- Monitoring behavioural changes and collecting feedback

#### » Partners & Stakeholders: Community women and Self-Help Groups (SHGs)

- School authorities and teachers,
- Sanitation workers and waste handlers,
- CSR partners and individual donors
- Volunteers and youth champions
- Local NGOs, Health workers

### » Resources and Innovations:

- Paper for disposal bags (newspaper or craft paper)
- Labor from trained community women
- Support from sponsors and crowdfunding for hygiene kits
- Educational materials in local languages
- Peer educators for outreach



### Cost of implementation and financial model:

- Per unit cost: ₹2.50 per red dot disposal bag
- Each Period Hygiene Kit includes about 28 bags (3-month supply), costing ₹70 for the disposal component
- Funded by CSR partners, individual donations, and small crowdfunding efforts
- Beneficiaries receive kits free of cost

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Partnered with 500+ schools and community hubs</li> <li>• Integrated with school systems and local health services</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Reached over 1 lakh women and girls</li> <li>• 73% of surveyed beneficiaries regularly used red-dot bags</li> <li>• Created livelihood opportunities for local women</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Partnered with 500+ schools and community hubs</li> <li>• Integrated with school systems and local health services</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Complemented the Swachh Bharat Red Dot Campaign</li> <li>• Helped translate policy-level awareness into grassroots implementation</li> <li>• Promoted community-level ownership of safe menstrual waste disposal</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• <b>Environment Impact</b> The intervention replaced plastic disposal methods with biodegradable paper bags, reducing plastic waste and harmful emissions from burning, while promoting eco-friendly disposal practices in low-resource areas.</li> <li>• <b>Health Impact</b> By promoting safe segregation and handling of menstrual waste, the program reduced health risks for sanitation workers and improved awareness among women and girls about hygienic disposal practices.</li> <li>• <b>Inclusion Impact</b> Livelihood opportunities for women and promoted dignity and awareness around menstruation, while engaging the wider community to reduce stigma and support inclusion.</li> </ul>

## Enablers & Barriers

### » What worked:

- Growing demand for red-dot disposal bags from schools, NGOs, and individuals
- Community women's readiness to produce bags
- Partnerships with schools, local NGOs, and municipal bodies
- Alignment with Swachh Bharat Mission for policy support

### » What was Challenging:

- Lack of dedicated funding beyond grant periods
- Difficulty in building consistent sales and distribution channels
- Limited production capacity due to manual processes
- Challenges in connecting micro-enterprises to markets

## Sustainability and Scale

### » Sustainability:

- Empowering local women to produce disposal bags, creating livelihood opportunities
- Embedding the model into schools and community systems
- Promoting ownership by using local materials and peer education
- Aligning with government programs like the Swachh Bharat Red Dot Campaign

### » Scalability Potential:

Partnerships with local NGOs, schools, and municipal bodies, as well as peer educator networks that sustain awareness and production locally.

## Key Takeaways

**Community-Driven Economic Model** - Combines safe menstrual waste disposal with livelihood generation, promoting community ownership and economic empowerment through local participation in the waste management value chain

**Policy-to-Practice Bridge** - Effectively bridges the gap between policy-level awareness and real-life implementation, especially in low-resource settings, by creating practical solutions that align with existing regulatory frameworks

**Cultural Transformation Catalyst** - Opens up cultural conversations around menstrual dignity, involving entire communities to reduce stigma and promote shared responsibility for women's health and environmental safety

## Further Information

Contact person	Email	Website and other online resources
Dr. Sania Siddiqui	saniashariq@gmail.com	<a href="https://www.humjolifoundation.com/">https://www.humjolifoundation.com/</a>



» **Partners & Stakeholders:**

- Households
- Local government (rural / urban)
- Waste management collectives
- Common Biomedical Waste Treatment Facilities

» **Resources and Innovations:**

**Cost of implementation and financial model:**

User-pays model charging up to ₹50/kg for collection, covering logistics, disposal fees, fuel, vehicle maintenance, and staff wages. The model avoids capital-heavy infrastructure by leveraging existing biomedical waste facilities, ensuring financial sustainability without grant dependency.

**Results & Impact**

Dimension	Results & Impact
<b>Reach</b>	Over 1.5 lakh households reached across multiple districts in Kerala, with active operations in Cochin Corporation, Kalamassery, Thrissur, Vadakara, and parts of Trivandrum and Kozhikode. Partnerships with 20+ Urban Local Bodies and collaboration with 30+ palliative care centers, schools, and health institutions. Specialized services for 600+ bedridden palliative care patients.
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Improved household-level segregation and waste management awareness</li> <li>• Enhanced dignity and safety for sanitation workers, care givers</li> <li>• Reduced health risks from improper disposal</li> <li>• Community ownership through awareness drives and local ambassador programs</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Integration of menstrual waste into municipal solid waste protocols and budgets</li> <li>• Formal MoUs with municipalities ensuring regulatory compliance</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Model replication potential demonstrated for scaling across India</li> <li>• Framework development for climate-resilient sanitation programs</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• <b>Environmental:</b> Diversion of up to 180 tons of sanitary waste monthly from landfills, reducing open dumping and burning, curbing dioxin release and harmful pollutants, and indirectly reducing GHG emissions.</li> <li>• <b>Health:</b> Protection of sanitation workers through safe handling protocols, reduced infection risks from contaminated waste, and improved hygiene standards in waste management systems.</li> <li>• <b>Inclusion:</b> Dedicated services for vulnerable groups including palliative care patients, protection of informal waste workers dignity and safety, and addressing unique waste needs of healthcare-dependent households through inclusive planning</li> </ul>

## Enablers & Barriers

### » What worked:

- Strong institutional partnerships through MoUs with municipalities
- Integration with existing biomedical waste infrastructure to avoid heavy capital costs,
- User-pays model that ensures financial sustainability.

### » What was Challenging:

**Sociocultural Barriers:** Deep-rooted menstrual taboos create resistance to waste segregation and prevent open household discussions, particularly in communities where stigma remains strongest.

**Financial Resistance:** Communities rejected paying for specialized menstrual waste collection when general waste services are typically free or subsidized, creating a significant economic adoption barrier.

**Systemic challenges:** Limited policy guidance to support menstrual waste management solutions, lack of specific protocols for sanitary waste handling and disposal. Additionally, securing consistent support from local decision makers for implementation, replication, and scale-up remains a persistent challenge, requiring extensive advocacy to demonstrate value propositions and align municipal priorities with specialized waste stream management needs.

## Sustainability and Scale

» **Sustainability:** Aakri demonstrates strong sustainability through its user-pays revenue model (₹50/kg) that covers operational costs without grant dependency, while leveraging existing biomedical waste infrastructure reduces capital requirements.

» **Scalability Potential:** The tech-enabled model with app-based scheduling and minimal manual sorting makes it highly replicable across urban settings. Currently diverting 180 tons monthly across multiple Kerala districts, the intervention is expanding to Hyderabad and has partnered with Re Sustainability Ltd for pan-India scaling, proving its commercial viability and scalability potential.

## Key Takeaways

**Zero Manual Sorting Approach** - Uses color-coded yellow bags and app-based scheduling to eliminate manual handling of menstrual waste, protecting sanitation workers' health and dignity

**Palliative Care Integration** - Dedicated services for bedridden patients and healthcare-dependent households, addressing a previously overlooked vulnerable population with specialized waste management needs

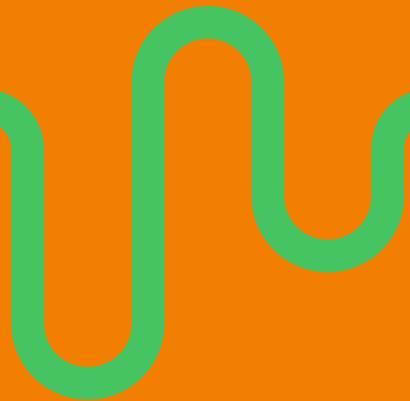
**Biomedical Waste System Leveraging** - Innovative integration with existing Common Biomedical Waste Treatment Facilities (CBWTFs) rather than creating separate infrastructure, making the model more cost-effective and scalable

### Further Information

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# CASE STUDIES

Section: End of Life Treatment



Section: End of Life Treatment

## Safe Disposal, Safe Dignity: Deep Burial Pits Transform Menstrual Hygiene at Government Higher Primary School

Organization

WaterAid India (Karnataka)

### Context & Challenge

- » **Region:** Gruhalakshmi Layout, Bengaluru, Karnataka
- » **The Challenge:** In urban slum communities, menstrual waste was routinely mixed with household garbage and disposed unsafely. This posed health risks to waste collectors, contributed to clogged drains, and created stigma for women and girls managing menstruation.

### The Intervention

#### » Approach/Model:

WaterAid India implemented a school and community-based MHM program that promoted awareness, safe segregation, and disposal infrastructure. The focus was on integrating behavioural change with low-cost, locally appropriate disposal solutions.

#### » Key Activities:

- Awareness sessions with adolescent girls, women, and men to reduce stigma.
- Formation of community MHM groups to sustain dialogue.
- Installation of deep burial pits and dustbins in schools.
- Training students and women on safe usage and disposal practices.
- Engagement with waste collectors for safe handling and integration into municipal collection.



» **Partners & Stakeholders:**

- WaterAid India (technical support and facilitation)
- Local NGOs and SHGs (community mobilisation)
- Schools, teachers, and students
- Waste collectors
- Local municipal authorities

» **Resources and Innovations:**

- Low-cost deep burial pits designed for school contexts.
- Peer-led awareness sessions by adolescent girls.
- Community ownership through SHGs and parent-teacher groups.



» **Cost of implementation and financial model:**

- **Deep burial pit construction:** ~₹5,000–10,000 per unit.
- **Bins and IEC materials:** < ₹500 per household/school.
- **Financial Model:** Supported by donor funds and CSR; designed for long-term inclusion in municipal sanitation budgets.

**Results & Impact**

The program enabled girls to manage menstruation safely and with dignity in an urban slum setting. Safe disposal mechanisms reduced risks for waste collectors and improved the sanitation environment around schools and communities.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• <b>Hundreds of adolescent girls and women</b> trained.</li> <li>• School and households in Gruhalakshmi Layout adopting segregation.</li> <li>• Waste collectors engaged in safe collection.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Increased confidence among women and girls.</li> <li>• Reduced stigma through awareness sessions.</li> <li>• Girls reported fewer absences linked to menstruation.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Formation of SHGs and MHM groups to sustain awareness.</li> <li>• Schools formally integrated disposal practices.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Not explicitly documented.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduction in mixed waste reaching municipal systems.</li> <li>• Fewer drainage blockages reported.</li> <li>• Safer conditions for waste collectors handling segregated waste.</li> </ul>

## Enablers & Barriers

### » What worked:

- Community mobilisation via SHGs and peer groups.
- Low-cost infrastructure suited to slum settings.
- Engagement of waste collectors for system integration.

### » What was Challenging:

- Overcoming stigma and initial resistance.
- Ensuring consistent household segregation.
- Limited municipal infrastructure for final disposal.

## Sustainability and Scale

» **Sustainability:** Maintained by schools and SHGs with municipal collaboration.  
Scaling Potential: Replicable across other slum settlements in Bengaluru and similar urban areas.

## Key Takeaways

- Community mobilisation is key in urban settings.
- Low-cost infrastructure like deep burial pits provides dignity and safety.
- Inclusion of waste collectors strengthens systemic sustainability.
- Behaviour change is critical to sustain segregation.

## Further Information

Contact person	Email	Website and other online resources
1) Hemalatha Patil State Program Director, Karnataka, WaterAid	ArjunK@wateraid.org	www.wateraidindia.in
2) Arjun K Specialist, WASH		

Section: End of Life Treatment

## From Individual to Community - The Journey of Safer Menstrual Waste Disposal in Tentuldanga and Raghunathdih

Organization

Collectives for Integrated Livelihood Initiatives (CInI)

### Context & Challenge

- » **Region:** Tentuldanga and Raghunathdih, Jharkhand
- » **The Challenge:** Lack of affordable and accessible disposal facilities forced women and girls to dump pads near ponds and open areas. Myths (e.g., infertility caused by burning pads) further discouraged safe practices.

### The Intervention

#### » Approach/Model:

CInI introduced the Matka Incinerator, an innovative, zero-cost disposal model that uses discarded clay pots. The approach combined awareness-building, myth-busting, and peer demonstration to encourage adoption.

#### » Key Activities:

- Awareness sessions with SHGs, Kishori groups, and women on safe disposal.
- Demonstration of Matka Incinerator at a field worker's home, triggering replication.
- Training on safe handling, frequent pad changing, and environmental impact of open dumping.
- Community volunteers encouraged adoption at the household and community level.

#### » Partners & Stakeholders:

- CInI (program implementation)
- Local SHGs and Kishori groups
- Women and adolescent girls in the villages
- Community volunteers
- Technical support from Tata Trusts



### » Resources and Innovations:

- Use of discarded clay pots (matkas) as incinerators at zero cost.
- Peer-led demonstration to build trust and community acceptance.
- Household-driven monitoring and maintenance.



### » Cost of Implementation and Financial Model:

- **Cost per unit:** Nil (uses unused clay pots).
- **Financial Model:** Fully community-owned; damaged matkas are replaced by households themselves.

## Results and Impact

The Matka Incinerator model created an affordable, dignified solution for menstrual waste disposal. Over 150 women and girls benefitted directly, while community acceptance grew as myths were dispelled and visible reductions in unsafe disposal occurred.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Adopted in 55 households benefitting 84 women and girls.</li> <li>• 1 community incinerator used by 94 women and girls.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Greater dignity and privacy for women.</li> <li>• Myths dispelled through awareness.</li> <li>• Behaviour change in disposal and pad usage.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• SHGs and Kishori groups championed adoption.</li> <li>• Community volunteers monitored replication.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Not documented.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduced waste dumping near ponds.</li> <li>• Cleaner village environment.</li> <li>• Acceptance of safe, eco-friendly disposal practices.</li> </ul>

## Enablers & Barriers

### » What worked:

- Zero cost, culturally acceptable model.
- Strong ownership by women's groups.
- Peer demonstration encouraged adoption.

### » What was Challenging:

- Myths linking pad burning with infertility.
- Occasional water collection in matkas reduced efficiency.
- Limited availability of discarded pots.

## Sustainability and Scale

» **Sustainability:** Community-maintained, no external cost or dependency.

» **Scaling Potential:** Highly replicable across rural Jharkhand and other states with active SHGs.

## Key Takeaways

- Zero-cost solutions can drive community-wide change.
- Peer-led replication ensures adoption and scale.
- Behavioural change and myth-busting are as vital as infrastructure.

## Further Information

Contact person	Email	Website and other online resources
Priyanka Mohanta, Technical Officer – MHM Program	priyanka.m@cinicell.org	<a href="https://www.youtube.com/watch?v=cPfsaJL0J40">https://www.youtube.com/watch?v=cPfsaJL0J40</a>

Section: End of Life Treatment

## A Scalable Circular Solution for Menstrual Waste Management

Organization

PadCare Labs Pvt. Ltd.

### Context & Challenge

» **Region:**

Maharashtra, Gujarat, MP, Telangana, AP, Delhi NCR, Rajasthan, UP, Chandigarh, WB, Odisha, Karnataka, TN, Kerala, Puducherry

» **The Challenge:**

Unsafe disposal of 12+ billion single-use pads annually, causing landfill overflow, health risks, and plastic pollution.

### The Intervention

» **Approach/Model:**

PadCare developed the world's first tech-enabled circular economy solution for menstrual waste. Its closed-loop model combines:

- Odor-lock bins at source
- Safe, dignified collection and transportation of waste to a centralised facility by trained staff
- Patented *5D recycling* technology to recover plastic and cellulose

This innovative solution addresses health, hygiene, and environmental concerns, reduces stigma around menstrual waste handling, and produces usable by-products.

» **Key Activities:**

- At-source disposal: Installation of odor-lock VAP bins in schools, offices, housing societies, and public toilets
- Collection and logistics: Scheduled waste pickup with liner replacement and safe cartridge handling
- Scientific recycling: 5D process (Disintegrate, Deodorize, Disinfect, Decolorize, Deactivate SAP) to recover plastic and cellulose
- Awareness and behavior change: 500+ IEC sessions and visual cues to encourage correct disposal
- Policy engagement: Alignment with Solid Waste Management Rules 2016, partnerships with urban local bodies, and Smart Cities

» **Partners & Stakeholders:**

- Implementation partners: Schools, worksites, housing societies, corporate offices

NGOs for awareness drives and campaigns

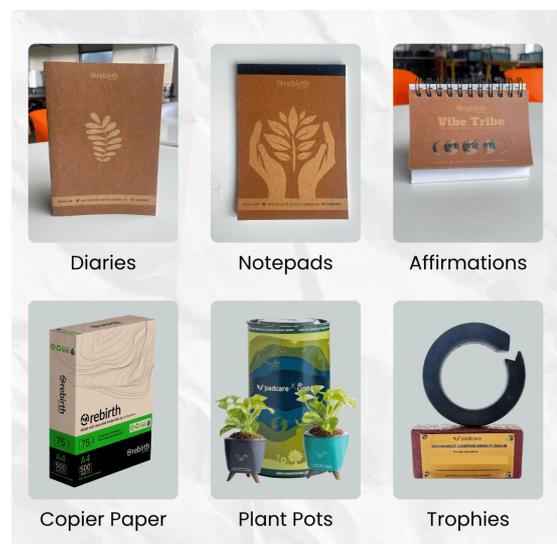
- Support staff: Transport vendors and recycling staff
- Government: Urban local bodies, National and state level policy makers
- Funders: CSR, philanthropic organizations, investors
- Academia and technical institutions (for research and development, testing, validation of technologies and by-products)

» **Resources and Innovations:**

- Patented 5D technology and odor-lock bins
- Service-based financial model
- Real-time monitoring platform (PadCare-ONE)
- IEC campaigns and awareness sessions to promote understanding of menstrual health and hygiene, reduce stigma, and emphasize dignity of all people who menstruate

» **Cost of implementation and financial model:**

- **Per unit cost:** Less than < INR 10,000 for each location
- **Model:** Service-based with subscription fees covering bin maintenance, collection, transport, and recycling operations
- **Revenue streams:**
  - Business to Business service revenue (from collection service charges that are weekly/fortnightly/monthly)
  - Sales of upcycled products from menstrual waste (plant pots, copier paper, bioleather)
  - Government subsidies through partnerships with urban local bodies
  - Optional sanitary napkin vending machines (Coin+UPI/Rfid/Sensor models)
  - Potential carbon credit monetization (under validation)



## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>800,000+ total beneficiaries (1,00,000 girls and women reached every month)</li> <li>1500+ sites across 25+ cities supported                             <ul style="list-style-type: none"> <li>571 corporate clients, 1638 client sites</li> <li>18,838 smart bins deployed</li> </ul> </li> <li>2.5 crores + sanitary pads diverted from landfills</li> <li>~52 metric tonnes of waste collected monthly</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>Improved restroom hygiene, reduced open dumping and flushing</li> <li>Safer handling for waste workers, improved dignity through the provision of personal protective equipment and training</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>Supporting organizations to comply with SOLid Waste Management Rules (2016, 2024) and meet EPR mandates and targets</li> <li>Working with city governments to integrate menstrual health and hygiene into ULB plans</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>Policy recognition through certification by the Central Pollution Control Board, and integration into Smart Cities initiatives</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>88% green house gas (GHG) emission reduction compared to incineration</li> <li>84% GHG emission reduction compared to landfilling</li> <li>Large volumes of pads converted into cellulose and plastic for reuse</li> </ul>

## Enablers & Barriers

### » What worked:

- Patented technology and closed-loop model that provides end to end services from on-site disposal to final treatment and recycling of waste
- Strong corporate and ULB partnerships
- Regular behavior change campaigns and awareness sessions
- Real-time monitoring for efficiency

### » What was Challenging:

- High operational costs and dependency on electricity
- Limited initial buy-in from institutions and communities due to novelty of solutions and up-cycled products made from menstrual waste
- Lack of sustained funding beyond grants

## Sustainability and Scale

### » Sustainability:

- Financially self-sustaining: Service-based B2B model funds collection, transport, and recycling, removing dependence on donor support.
- Asset-light approach: Modular, odor-lock bins and smart logistics keep capital and maintenance costs low.
- Operational excellence: Standardized SOPs ensure hygiene, accountability, and reliable service delivery.
- Circular economy revenue: Recovered plastic and cellulose are upcycled into eco-products (plant pots, copier paper, bioleather), creating additional income streams.
- Community ownership: Awareness campaigns build consistent user compliance and institutional buy-in, ensuring long-term adoption.

### » Scalability:

- Proven replication: Scalable to urban, peri-urban, and institutional contexts.
- Infrastructure expansion: 2 metric tonnes/day recycling plant under development in Pune to boost processing capacity.
- Market and policy readiness: Integration with EPR frameworks and public procurement can unlock mass adoption.
- Geographic growth: Pilots planned in Kerala and Singapore, demonstrating global replication potential.
- Adaptability: Low-tech, modular setup allows quick rollout in Tier 2 and 3 cities and potentially gram panchayats.

## Key Takeaways

- **Technology + Service Models** can transform menstrual waste into a resource while improving health, hygiene, and dignity.
- **Behavior change campaigns** are essential to ensure sustained, correct use of menstrual waste disposal systems.
- **Public-private partnerships** accelerate adoption and scale of innovative and transformative solutions.
- **Circular economy approaches** strengthen financial viability and mitigate negative environmental impact of menstrual waste.

## Further Information

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Section: End of Life Treatment

## Collective action for sustainable impact: learnings from a school-based pilot in Jaipur

Organization

Centre for Advocacy and Research (CFAR)

### Context & Challenge

» **Region:**

Rajasthan, Jaipur

» **The Challenge:**

Absence of on-site, locally managed, and environmentally safe solution for menstrual waste management in school and community systems to improve access, knowledge, education, reduce health risks, and support safe MHM.

### The Intervention

» **Approach/Model:**

Community-led WASH and waste management systems, resilient WASH facilities scalable through government support, and integrated menstrual health management as a key component of inclusive, climate-resilient WASH.

» **Key Activities:**

- CFAR introduced community-owned deep burial pit for menstrual waste management at Mahatma Gandhi government school, Jaipur
- Knowledge sessions with girls from grades 6–12, school authorities, communities on safe menstrual waste management, proper pit usage and segregated waste disposal through designated dustbins for effective waste management
- Trained sanitation workers on proper handling procedures and safety protocols and regular support through CFAR team
- Established multi-stakeholder monitoring system involving SHGs, child cabinet, school management committee, and sanitation workers
- Implemented comprehensive tracking including pad counting, disposal monitoring, regular pit emptying with mud and leaf layering, PPE compliance, pit security, odor control, and ongoing stakeholder communication

» **Partners & Stakeholders:**

- Student-led Child Cabinet, School administration, sanitary Workers, Sanitation-based Self-Help Groups, The School Management Committee - Parents, Frontline workers, The Directorate of Women's Empowerment (Government of Rajasthan), The Rajasthan Menstrual Health Alliance (14 CSOs, CBOs, and UN agencies)



#### » Resources:

The deep burial pit was supported by a comprehensive ecosystem including structured knowledge sessions for students on gender, WASH, and menstrual health using a co-developed curriculum delivered by trained community facilitators during Saturday 'No Bag Day' activities. Community outreach extended through Jaipur Vaani radio broadcasts on handwashing demonstrations and transgender menstrual health awareness, while CFAR collaborated with government agencies to improve water supply and toilet facilities.

SHG members provided crucial support by monitoring the pit, promoting household waste segregation into wet, dry, and menstrual streams, and engaging in sanitation-based livelihoods that reinforced sustainable waste management practices throughout the community.

#### » Cost of implementation and financial model:

The intervention requires an upfront investment of Rs 85,000-100,000 for raw materials and labor for two pits, plus Rs 15,000-20,000 for optional safety features, while leveraging significant pro-bono contributions from CFAR, community volunteers, and local committees for capacity-building and monitoring activities.

Government support covers essential infrastructure including land, sanitary worker salaries, existing sanitation facilities, and waste collection services as part of their existing mandate, eliminating financial burden on the project.

With no recurring Operations and maintenance costs and repair responsibilities resting with school authorities and government departments, the model achieves cost-effectiveness through strategic resource sharing, making replication highly feasible when integrated into existing government sanitation and health programmes.

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>The uptake of deep burial pits rose from 334 girls disposing 200 pads to 429 girls disposing over 160 pads efficiently within one year.</li> <li>Directly benefited 38,586 girls, women, and individuals from Sexual and Gender Minorities across the program area.</li> <li>Strengthened waste management practices across 90 institutions (Schools, AWCs, Health Centres) in 46 municipal wards and 122 settlements.</li> <li>Successfully replicated in Padampura Khurd Village, Rajasthan, benefiting 80 women and girls with a safe, sustainable solution</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>Positive shifts in menstrual hygiene practices among students and staff, with increased awareness of safe disposal methods</li> <li>Enhanced community engagement and acceptance of menstrual hygiene interventions</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>School staff and institutional stakeholders adopted structured protocols for menstrual waste disposal, enhancing hygiene management</li> <li>Increased engagement with state and local government to promote and participate in menstrual health programs</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>Recognised by The Sigma Foundation as a best practice for safe and climate-adaptable menstrual waste decomposition</li> <li>Evaluation by IPE Global (2024) recommended expansion beyond schools</li> <li>Endorsed by Swachh Bharat Mission and Department of Local Bodies during Swachh Sarvekshan 2025 for broader scaling</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>The deep burial pit diverted menstrual waste from landfills and open disposal sites, significantly reducing plastic pollution while enabling safe decomposition through natural processes with organic layering materials.</li> </ul>

## Enablers & Barriers

### » What worked:

- Government supported and community Led - Support from local authorities and communities ensured action and implementation.
- Inclusive and consultative design - Drawing from prior models and local needs made the solution practical and user-friendly.
- Comprehensive approach - Combining infrastructure, education, and awareness addressed both physical and behavioral aspects of menstrual hygiene.

- Capacity building - Training community facilitators created local ownership and sustained engagement.
- Institutional reinforcement - Involving schools, Child Cabinets, and SMCs helped promote good hygiene practices.
- Collaboration with SHGs and civic bodies – Strengthened monitoring, maintenance, and sustainability of waste management practices.

» **What was Challenging:**

- There is potential for cross-collaboration between government departments and shared ownership.
- Menstrual waste was largely seen as a private concern, so it was often overlooked in city planning and services.
- Stigma and structural inequalities related to gender, caste, and disability restricted open participation.

## Sustainability and Scale

» **Sustainability:**

The intervention established a multi-stakeholder management system with trained master trainers and local actors (SMCs, SHGs, sanitary workers, Child Cabinets) operating through defined roles and SOPs, while community volunteers provide ongoing capacity-building and monitoring support. Government support ensures financial viability by supporting infrastructure development, sanitary worker honorariums, and waste collection services that offset recurring operational costs, creating a self-sustaining model for long-term impact.

» **Scaling Potential:**

The model's low-cost, community-owned design makes it easily adaptable to diverse contexts, as evidenced by successful replication in Padampura Khurd Village, Rajasthan. With endorsements from Swachh Bharat Mission and recommendations for expansion beyond schools by IPE Global, the intervention has strong policy support for nationwide scaling across educational institutions, community centers, and rural settlements.

## Key Takeaways

- **Multi-stakeholder support** – Community-led initiative with local and institutional support for legitimacy and shared ownership, involving SMCs, SHGs, sanitary workers, Child Cabinets, and government backing to ensure sustainable operations.
- **Integrate education with infrastructure** – Integrating menstrual waste solutions with gender-sensitive awareness and school-based hygiene programs through knowledge sessions and behavioral change activities that promote proper usage and disposal practices.
- **Technical co-design for sustainability** – Collaboratively designed pit models with safety measures and expert oversight ensure technical viability while remaining cost-effective and locally manageable.
- **Government partnership for financial viability** – Strategic government support for infrastructure, worker honorariums, and waste collection services creates a financially sustainable model that offsets recurring operational costs.

## Further Information

Contact person	Email	Website and other online resources
Juhi Jain Deputy Director	juhi.j@cfar.org.in	www.cfar.org.in Deep Burial Pit Learning Brief (2024) <a href="https://drive.google.com/file/d/15qvopUyzVZ2V0af1bNxYRmel-wEBdlav/view?usp=sharing">https://drive.google.com/file/d/15qvopUyzVZ2V0af1bNxYRmel-wEBdlav/view?usp=sharing</a>

Section: End of Life Treatment

## Dignity by Design: Building Community Toilets as Safe Menstrual Health Spaces

Organization

Water, Sanitation and Hygiene Institute (WASH Institute)

### Context & Challenge

» **Region:**

Saharanpur, Uttar Pradesh

» **The Challenge:**

The lack of proper sanitation infrastructure in Saharanpur left families without adequate toilet facilities, with two settlements having no access at all. For women and girls, this meant greater challenges in managing menstruation, reliance on unsafe disposal methods, and a loss of dignity compounded by limited awareness and social stigma.

### The Intervention

» **Approach/Model:**

The intervention adopted a municipality-owned, integrated model that combined community toilet infrastructure upgrades with comprehensive community engagement at every stage to address menstrual product access, safe disposal options, and privacy needs.

» **Key Activities:**

- Existing toilets were renovated and new facilities constructed with dedicated women's sections featuring private changing rooms, sanitary napkin vending machines, and electric incinerators for safe disposal.
- Multiple MHM awareness sessions were conducted in each community to break down myths, demonstrate proper usage of facilities, and promote behavior change around menstrual hygiene practices.
- The community-led approach leveraged municipal support through Nagar Nigam ownership while ensuring stakeholder consultations and on-the-ground facilitation for maximum acceptance and utilization.

» **Partners & Stakeholders:**

- Saharanpur Nagar Nigam, Community members, WATSAN committee members

» **Resources:**

» **Cost of implementation and financial model:**

The Municipal cooperation provided administrative approvals, budget support, and ensured integration with urban sanitation systems.

## Results & Impact

Dimension	Results & Impact
<b>Reach</b>	The intervention reached 500-1000 households and 1,000 individuals across the targeted communities in Saharanpur. Additionally, 10-19 community/public toilet establishments were improved or constructed, providing essential sanitation infrastructure to serve the broader population.
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Dignity and Privacy - Functional and private changing rooms with accessible vending machines</li> <li>• Easy to implement and accessible disposal of the menstrual product is instant and on-site.</li> <li>• Reduces stigma: Awareness programs encourage family support.</li> </ul>
<b>Institutional outcomes</b>	Nagar Nigam established ownership with trained caretakers for facility maintenance, while WATSAN committee women were equipped to operate incinerators and provide ongoing menstrual health support.
<b>Environment, health &amp; inclusion outcomes</b>	Reduced open disposal of menstrual waste, mitigating health risks and improving overall cleanliness and hygiene for the community.

## Enablers and Barriers

- **What worked:** The interactive IEC sessions, peer-led education, and icebreaker activities fostered open dialogue about menstruation. Trained peer educators and female teachers led discussions using appropriate tools to normalize menstruation and sanitary pad use within the community context. These targeted activities gradually dismantled cultural resistance and transformed menstruation from a taboo subject into an accepted topic of health discussion.
- **What was challenging:** Deep-rooted cultural norms about menstruation created significant resistance, making women and girls hesitant to discuss menstrual health or participate in hygiene sessions. The intervention faced operational challenges, particularly electricity issues, hindered the smooth functioning of facilities and waste management systems. The lack of available space within existing toilet blocks posed challenges in creating changing room infrastructure that ensures user privacy and dignity.

## Sustainability and Scale

### » Sustainability:

The intervention ensured long-term viability through institutional ownership by Nagar Nigam, with trained caretakers responsible for regular cleaning and maintenance of incinerators, while women members of WATSAN committees were trained to operate facilities and support community members on menstruation-related issues. Behavior change achieved through comprehensive awareness sessions guarantees continued use of the facilities by the target population.



### » Scaling Potential:

The cost-effective and inclusive model is easily replicable, with discussions already underway to expand this approach to additional wards in Saharanpur and similar urban clusters in other districts.

## Key Takeaways

**Integrated Infrastructure Design:** Purpose-built infrastructure that combines private changing spaces, accessible product availability (vending machines), and safe disposal mechanisms (incinerators) within existing community facilities.

**Cultural Sensitization for Infrastructure Adoption:** Comprehensive community engagement and culturally sensitive awareness programs are essential to overcome deep-rooted taboos and ensure that communities utilize MH infrastructure, adopt sanitary disposal and waste management practices.

### Further Information

Contact person	Email	Website and other online resources
Nivedita	nivedita@washinstitute.org	<a href="https://www.washinstitute.org/">https://www.washinstitute.org/</a>

Section: End of Life Treatment

## Disposing with Dignity: A School-Based Model for Managing Menstrual Waste in Rural Tamil Nadu

Organization

Wherever the Need India Services (Sanitation First)

### Context & Challenge

» **Region:**

Veeracholan, Narikudi Block, Virudhunagar District, Tamil Nadu

» **The Challenge:**

Baseline assessment at a rural government school (650 students) revealed severe WASH gaps. The toilet-to-student ratio was 1:145, toilets lacked doors, bins, and water. Used pads were dumped in corners, behind buildings, or directly in toilets. Girls lacked private spaces to change, leading to absenteeism, illness, and shame. Teachers and sanitation staff had no training or protocols for safe disposal.



### The Intervention

» **Approach/Model:**

A **school-integrated menstrual waste management model** combining infrastructure upgrades, innovative disposal technology, and behaviour change interventions.

» **Key Activities:**

- Construction of new girls' toilet blocks with private changing rooms.
- Installation of manual incinerators tailored for low-resource schools (no electricity dependence).
- Awareness sessions for students, teachers, and parents to break menstrual taboos.
- Training sanitation staff and establishing maintenance protocols.
- Integration of menstrual waste into the wider school WASH system.

» **Partners & Stakeholders:**

Sanitation First (implementer); local government (education department support); teachers and sanitation staff; CSR and donor partners.

### » Resources and Innovations:

- Low-tech, manual incinerator design suited for rural schools.
- Participatory baseline mapping by students to identify sanitation gaps.
- Integrated WASH approach (toilets, handwashing stations, awareness).

### » Cost of implementation and financial model:

- **Per unit cost:** INR 50,000 – 1,00,000 (incinerators, toilet upgrades).
- **Financial Model:** Supported by **CSR and donor grants;** long-term Operations and maintenance built into school routines and staff training.



## Results and Impact

The intervention has created a **dignified school environment for adolescent girls**, reducing absenteeism and unsafe disposal. It highlights the value of low-tech, context-specific solutions in rural menstrual waste management.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Benefited <b>650 students</b> in one government higher secondary school.</li> <li>• Implemented across <b>&gt;50 educational institutions</b> in the district.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Girls reported improved dignity and confidence.</li> <li>• Reduced absenteeism during menstruation.</li> <li>• Safer, private spaces encouraged use of school toilets.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Teachers and sanitation staff trained in safe disposal.</li> <li>• Maintenance protocols established within schools.</li> <li>• SHGs and students involved in awareness drives.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduction in scattered menstrual waste and toilet blockages.</li> <li>• Cleaner school environment with improved hygiene.</li> <li>• Safer conditions for sanitation staff handling waste.</li> </ul>

## Enablers and Barriers

- **What worked:** Low-tech manual incinerator suited to rural settings; participatory student mapping; CSR funding; integration with overall WASH improvements.
- **Challenges:** Limited policy guidance; sustainability beyond donor period; community resistance to behavioural change in early stages.

## Sustainability and Scale

### » Sustainability:

Anchored in school-level protocols and staff training; supported by low-maintenance manual incinerators.

### » Scaling Potential:

Replicable across rural government schools in aspirational districts; strong potential if integrated into state education schemes.

## Key Takeaways

- Infrastructure + awareness + maintenance protocols ensure long-term success.
- Low-tech solutions are vital for rural and low-resource schools.
- Student involvement in mapping fosters ownership and relevance.
- CSR support bridges gaps where government resources are insufficient.

## Further Information

Contact person	Email	Website and other online resources
TS Padmapriya Chief Executive	padmapriya@sanitationfirst.org	www.sanitationfirst.org

Section: End of Life Treatment

## School-Based Menstrual Waste Management in Munger, Bihar

Organization

Water, Sanitation and Hygiene Institute (WASH Institute)

### Context & Challenge

» **Region:**

Munger District, Bihar

» **The Challenge:**

Schools lacked proper disposal infrastructure for menstrual waste. Girls used cloth or disposable pads but had no bins/incinerators, leading to unsafe disposal (toilets, drains, open areas). Stigma, minimal awareness, and poor infrastructure caused absenteeism and health risks.



### The Intervention

» **Approach/Model:**

A **school-based integrated model** combining infrastructure development (changing rooms, bins, incinerators, vending machines) with awareness and policy alignment to improve menstrual hygiene and waste management for adolescent girls.

» **Key Activities:**

- Construction/renovation of girls' changing rooms in schools.
- Installation of sanitary vending machines and incinerators for safe disposal.
- Awareness sessions with girls, teachers, and parents on MHM and stigma reduction.
- Integration with Bihar's **MHM Roadmap (2022–25) and Mukhyamantri Kishori Swasthya Yojana.**
- Capacity building for school staff, SMCs, and student child cabinets.

» **Partners & Stakeholders:**

WASH Institute (implementer); schools and SMCs; CSR partners (funding); local government (support); child cabinets and teachers (implementation).

» **Resources and Innovations:**

- On-site disposal using electric incinerators.
- Behaviour change and peer-led awareness sessions.
- Integration of menstrual waste management into existing school waste systems.

» **Cost of implementation and financial model:**

- **Per unit cost:** INR 10,000 – 20,000 (for incinerators and disposal facilities).
- **Financial Model:** Supported through **CSR contributions**, aligned with government schemes for sustainability.

## Results and Impact

The program has **improved school environments by pairing disposal infrastructure with awareness**, leading to greater comfort and attendance among girls. It has also demonstrated successful integration with state MHM policy frameworks.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Reached <b>1000+ adolescent girls</b> in schools across Munger.</li> <li>• Intervention implemented in 50+ schools.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Girls gained access to safe disposal, reducing absenteeism.</li> <li>• Improved knowledge about MHM and hygiene practices.</li> <li>• Reduction in stigma and greater comfort in using school toilets.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Integration into Bihar's MHM Roadmap (2022–25).</li> <li>• School authorities and SMCs trained for long-term monitoring.</li> <li>• Child cabinets engaged for peer awareness.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Linked with <b>state schemes</b> like Mukhyamantri Kishori Swasthya Yojana.</li> <li>• Formal recognition under Bihar's roadmap for menstrual health.</li> <li>• Policy adoption in schools for MHM practices.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduction in unsafe disposal practices (open dumping, flushing).</li> <li>• Cleaner school environment; reduced blockages in toilets.</li> <li>• Improved dignity and health outcomes for adolescent girls.</li> </ul>

## Enablers and Barriers

- **What worked:** Policy alignment with state schemes; CSR support; participatory awareness approach involving teachers and child cabinets.
- **Challenges:** Lack of Operations and maintenance funds for incinerators; electricity issues; dependency on external financing.

## Sustainability and Scale

### » Sustainability:

Anchored in school and state-level schemes; sustained through trained teachers, SMCs, and child cabinets.

### » Scaling Potential:

Replicable across Bihar under the MHM Roadmap, and adaptable to similar rural/ peri-urban contexts in India.

## Key Takeaways

- Infrastructure must be paired with awareness for effective uptake.
- Policy convergence (state schemes + CSR) strengthens sustainability.
- Peer-led models (child cabinets) enhance acceptance.
- Low-cost on-site disposal is a practical school-level solution.

## Further Information

Contact person	Email	Website and other online resources
Subir Kumar Das Project Officer	nivedita@washinstitute.org	www.washinstitute.org

Section: End of Life Treatment

## Breaking Barriers, Building Dignity – DLR Prerna's Menstrual Health and Hygiene Interventions in the Darjeeling and Kalimpong Hills, West Bengal

Organization

DLR Prerna

### Context & Challenge

» **Region:**

Darjeeling and Kalimpong districts, West Bengal

» **The Challenge:**

In remote hilly schools and communities, menstruation remained a taboo subject, and safe disposal options were absent. Girls frequently missed school during their periods, while stigma and silence prevented access to information and infrastructure.

### The Intervention

» **Approach/Model:**

DLR Prerna adopted a **school and community-based model** that combined awareness, infrastructure, and peer learning to tackle menstrual taboos and create safe disposal systems.

» **Key Activities:**

- Awareness campaigns with girls, boys, teachers, and parents to reduce stigma.
- Training teachers and health workers to integrate MHM into daily routines.
- Installation of incinerators and dustbins in schools for safe pad disposal.
- Creation of peer clubs where adolescent girls led awareness among peers.
- Collaboration with Panchayats and SHGs for wider community involvement.

» **Partners & Stakeholders:**

- DLR Prerna (implementation and facilitation)
- Schools, teachers, students (peer clubs)
- Panchayats and SHGs
- Local health workers and parents



### » Resources and Innovations:

- Peer clubs as sustainable awareness hubs.
- Integration of MHM into school curriculum and extracurricular activities.
- Contextualised disposal solutions suitable for hilly, resource-constrained areas.



### » Cost of implementation and financial model:

- Incinerators: ₹15,000–20,000 per unit.
- Bins: <₹500 each.
- Funding primarily through donor contributions and institutional support.

## Results and Impact

The program enabled girls in remote hill schools to manage menstruation with dignity. Schools equipped with disposal facilities and peer clubs reported reduced absenteeism and a shift in attitudes among boys, teachers, and parents.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Dozens of schools across Darjeeling and Kalimpong reached.</li> <li>• <b>Hundreds of adolescent girls</b> benefitted directly.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Girls reported greater confidence managing menstruation.</li> <li>• Boys and teachers sensitised.</li> <li>• Taboos reduced within school communities.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Peer clubs created for sustainability.</li> <li>• Teacher champions integrated MHM into school practices.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Not explicitly documented.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduced absenteeism due to safe disposal facilities.</li> <li>• Cleaner, safer school sanitation environment.</li> <li>• Improved community dialogue around menstruation.</li> </ul>

## Enablers and Barriers

- **What worked:**
  - Peer-led awareness through student clubs.
  - Teacher engagement for long-term integration.
  - Context-specific solutions for hilly terrains.
- **What was challenging:**
  - Upfront costs for disposal units.
  - Operations and maintenance and supervision of incinerators.
  - Breaking cultural stigma among parents and elders.

## Sustainability and Scale

### » Sustainability:

Peer clubs and trained teachers maintain awareness and Operations and maintenance of facilities.

### » Scaling Potential:

Model replicable across hilly, rural geographies with support from state education departments.

## Key Takeaways

- **Schools are critical entry points** for menstrual waste management.
- **Peer clubs and teacher champions** sustain awareness.
- Disposal infrastructure must be paired with **awareness programs**.
- Adaptation to **local geography and culture** is essential.

## Further Information

Contact person	Email	Website and other online resources
1) Anamika Sharma, Program officer, DLR Prerna 2) Bikram Basak	bbasak@unicef.org	www.dlrprerna.org www.unicef.org/india

Section: End of Life Treatment

## Beyond Whispers: From Taboos to Triumph: How Pendalkuhi Saturated Its Village with Menstrual Health and Hygiene Awareness

Organization

WaterAid India (Chhattisgarh)

### Context & Challenge

» **Region:**

Pendalkuhi Village, Chhattisgarh

» **The Challenge:**

Open dumping and burning of pads was common due to lack of awareness and safe disposal facilities. Menstruation was surrounded by stigma, leading to absenteeism among adolescent girls and unsafe practices in the community.

### The Intervention

» **Approach/Model:**

WaterAid India implemented a **school and community-focused approach**, combining awareness, safe disposal infrastructure, and integration into Panchayat-level sanitation planning.

» **Key Activities:**

- Awareness sessions for adolescent girls, women, and men to reduce stigma.
- Training adolescent peer leaders, SHGs, and ASHAs.
- Installation of incinerators and dustbins in schools.
- Integration of menstrual waste management into village sanitation planning.
- Ongoing monitoring and reinforcement through community meetings.

» **Partners & Stakeholders:**

- WaterAid India (implementation and training)
- Local schools, teachers, and students
- SHGs and ASHAs (peer awareness)
- Gram Panchayat (infrastructure support, planning)
- Community leaders and parents

### » Resources and Innovations:

- **School-based incinerators and bins.**
- Peer-led awareness through adolescent girls.
- Panchayat-level integration of MHM into sanitation plans.



### » Cost of implementation and financial model:

- **Incinerator cost:** ₹15,000–20,000 per unit.
- IEC campaigns: low cost, donor funded.
- **Financial Model:** CSR/donor funding for infrastructure and IEC; Panchayat encouraged to allocate funds for Operations and maintenance.

## Results and Impact

The program enabled adolescent girls to stay in school during menstruation and reduced unsafe disposal in the community. Integration into Panchayat sanitation plans gave the initiative legitimacy and sustainability.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• Schools in Pendalkuhi equipped with bins and incinerators.</li> <li>• <b>Hundreds of adolescent girls</b> directly benefitted.</li> <li>• SHGs and ASHAs trained as peer educators.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Girls reported reduced absenteeism and greater dignity.</li> <li>• Stigma and silence around menstruation reduced.</li> <li>• Women more aware of safe disposal.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Schools integrated MWM into daily routines.</li> <li>• Panchayat and SHGs played an active role in awareness and monitoring.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• MWM integrated into village sanitation planning.</li> <li>• Panchayat encouraged to allocate funds for Operations and maintenance.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduction in open dumping and burning.</li> <li>• Safer sanitation environment in schools.</li> <li>• Dignified environment for adolescent girls.</li> </ul>

## Enablers and Barriers

### • What worked:

- School-based approach gave visibility and acceptance.
- SHGs and ASHAs ensured peer-to-peer awareness.
- Panchayat support legitimised the initiative.



### • What was challenging:

- Ensuring continuous maintenance of incinerators.
- Cultural taboos required persistent engagement.
- Limited resources restricted scale beyond the village.

## Sustainability and Scale

### » Sustainability:

Maintained through **school and Panchayat ownership** with SHG support.

### » Scaling Potential:

Replicable across rural Chhattisgarh and other states via SBM-G and Panchayat-driven sanitation plans.

## Key Takeaways

- Schools are effective entry points for MWM.
- Community awareness + infrastructure sustain behavioural change.
- Panchayat ownership ensures legitimacy and sustainability.
- Low-cost incinerators can reduce unsafe disposal practices.

## Further Information

Contact person	Email	Website and other online resources
Arjun K, Specialist, WASH	ArjunK@wateraid.org	www.wateraidindia.in Video link- <a href="https://youtu.be/sTCpFObroEA?si=JTAFI30ngnjZyaYV">https://youtu.be/sTCpFObroEA?si=JTAFI30ngnjZyaYV</a>

Section: End of Life Treatment

## Breaking the silence: Menstrual Hygiene Waste Management in Rural Jharkhand

Organization

UNICEF

### Context & Challenge

- » **Region:** Jharkhand (districts including Latehar, Bokaro, West Singhbhum)
- » **The Challenge:** Growing use of sanitary pads in rural areas without proper disposal systems led to unsafe practices, stigma, and environmental risks.

### The Intervention

#### » Approach/Model:

UNICEF piloted a menstrual waste management model integrated with Swachh Bharat Mission-Gramin (SBM-G), combining awareness campaigns, school-based interventions, and infrastructure such as incinerators and burial pits.

#### » Key Activities:

- State-wide mass IEC campaign “Chuppi Todo Swasth Raho”.
- Establishment of MHM Labs in schools for safe disposal and awareness.
- Training of teachers, Panchayats, and SMC members.
- Development of IEC tools and integration into education programs.
- Convergence with health and sanitation departments.

#### » Partners & Stakeholders:

- UNICEF (technical support and advocacy)
- Government of Jharkhand (SBM-G, Dept. of Education, Health)
- Teachers, School Management Committees (SMCs)
- Panchayats, frontline workers, SHGs
- Adolescents and community leaders

#### » Resources and Innovations:

- Mobilisation of CSR, DMFT, and school budgets (e.g., Latehar ₹19.86 million).
- Creation of **MHM Labs** as safe spaces for adolescent girls.
- State-wide convergence with departments for policy and implementation.

### Cost of implementation and financial model:

- **Incinerator installation:** ₹10,000–12,000 per unit.
- **MHM Labs:** Funded via mix of **school grants, CSR, DMFT.**
- **Financial sustainability:** Anchored in SBM-G and school budgets for Operations and maintenance.

### Results & Impact

The initiative reached millions through mass campaigns and provided thousands of schools with MHM infrastructure. Girls reported improved dignity and reduced absenteeism, while systemic changes at the state level ensured long-term institutionalisation of menstrual waste management.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• IEC campaign “<i>Chuppi Todo Swasth Raho</i>” reached <b>&gt;10 million people.</b></li> <li>• <b>1,500+ MHM Labs</b> established in schools.</li> <li>• Latehar mobilised <b>₹19.86 million</b> for vending machines, incinerators, and labs.</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Hygienic protection use rose significantly (NFHS: <b>49.6% ? 74.6%</b>).</li> <li>• Reduced stigma and improved knowledge among adolescents.</li> <li>• Reported reduction in absenteeism.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Integration of MHM into WASH in Schools and SBM-G.</li> <li>• Master trainers developed in residential schools.</li> <li>• Nodal teachers appointed in schools.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• State-Level Core Committee (2022) formed.</li> <li>• Draft Operations and maintenance policy under SBM-G Phase III.</li> <li>• State MH scheme under preparation.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduction in unsafe disposal and open burning.</li> <li>• Safer sanitation for students and workers.</li> <li>• Promotion of eco-friendly absorbents.</li> </ul>

## Enablers & Barriers

### » What worked:

- Strong alignment with SBM-G and Education Dept. programs.
- Wide outreach through state-led campaigns.
- UNICEF's technical expertise and IEC tools.

### » Challenges Faced:

- Deep-rooted stigma and myths.
- Limited funds for regular Operations and maintenance of incinerators.
- Need for continuous community engagement.

## Sustainability and Scale

### » Sustainability:

Maintained by integration into school budgets and SBM-G Phase III, supported by nodal teachers.

### » Scalability Potential:

Already scaled across multiple districts; replicable across Jharkhand and other states via SBM-G frameworks.

## Key Takeaways

- Policy convergence ensures long-term adoption.
- School-based MHM Labs reduce absenteeism and stigma.
- Engaging boys and men is critical to breaking silence.
- Low-cost solutions (pits/incinerators) scale through government funding.

## Further Information

Contact person	Email	Website and other online resources
Laxmi Ranjan Saxena WASH Officer	lsaxena@unicef.org	www.unicef.org/india Video Link- <a href="https://drive.google.com/file/d/1orZfo7e3rALFqfvardfahCivyLUPUkOM/view?usp=drivesdk">https://drive.google.com/file/d/1orZfo7e3rALFqfvardfahCivyLUPUkOM/view?usp=drivesdk</a>

Section: End of Life Treatment

## Green and Clean Campaign: School-Led Menstrual Hygiene and Waste Management Initiatives

Organization

UNICEF India

### Context & Challenge

- » **Region:** Purulia district, West Bengal
- » **The Challenge:** Schools had no safe menstrual waste disposal mechanisms. Pads were openly dumped, flushed, or unsafely burnt, resulting in health risks, stigma, and environmental hazards.

### The Intervention

#### » Approach/Model:

A **district-wide convergence model** integrating awareness, school-led initiatives, and financing through the 15th Finance Commission. The approach ensured that demand was created through awareness before infrastructure was introduced.

#### » Key Activities:

- Awareness campaigns through rallies, IEC sessions, and community meetings to normalise menstruation.
- Installation of **72 vending machines** across schools.
- Initial procurement of **9 incinerators** (4 schools, 5 colleges) reaching 850+ girls.
- District-level convergence meeting approving **142 more incinerators** (100 for SWM units, 42 for schools).
- Appointment of **nodal MHM teachers** in each school for monitoring and Operations and maintenance.

#### » Partners & Stakeholders:

- UNICEF India (technical support and strategic inputs)
- Purulia Zilla Parishad (financing through 15th FC)
- Samagra Shiksha Mission (school identification and implementation)
- Teachers, students, SMCs
- Panchayats and community leaders

#### » Resources and Innovations:

- Leveraging 15th FC funds for menstrual waste management.

- Awareness-led adoption model (awareness → demand → infrastructure).
- Integration of school-level monitoring through nodal teachers.

#### Cost of implementation and financial model:

- 72 vending machines @ ₹50,000 each = ₹36 lakh.
- 142 incinerators @ ₹1,00,000 each = ₹1.42 crore.
- 9 incinerators by institutions @ ₹35,000 each = ₹3.15 lakh.
- Total committed = ~₹1.81 crore.
- Financial Model: 15th FC funds for infrastructure; Operations and maintenance through school grants and Panchayat budgets.



### Results & Impact

The campaign succeeded in creating demand-led adoption of disposal systems in schools. Hundreds of girls are already benefitting from vending machines and incinerators, while thousands more will gain access once the approved units are installed. Policy recognition and financing through the 15th FC has created a model that can be replicated in other districts.

Dimension	Results & Impact
<b>Reach</b>	<ul style="list-style-type: none"> <li>• 72 schools with vending machines.</li> <li>• 9 incinerators across schools/colleges benefiting <b>850+ girls</b>.</li> <li>• Approval of 142 more incinerators (100 for SWM units, 42 for schools).</li> </ul>
<b>Individual &amp; Community-level outcomes</b>	<ul style="list-style-type: none"> <li>• Girls reported reduced absenteeism.</li> <li>• Improved confidence and dignity at school.</li> <li>• Boys and teachers engaged in awareness sessions.</li> </ul>
<b>Institutional outcomes</b>	<ul style="list-style-type: none"> <li>• Appointment of nodal MHM teachers for monitoring.</li> <li>• Inclusion of disposal practices into school SOPs.</li> <li>• Structured reporting system created.</li> </ul>
<b>Structural / Policy outcomes</b>	<ul style="list-style-type: none"> <li>• Use of <b>15th FC funds</b> for MHM disposal institutionalised.</li> <li>• Integration of MWM into district-level SWM planning.</li> </ul>
<b>Environment, health &amp; inclusion outcomes</b>	<ul style="list-style-type: none"> <li>• Reduced unsafe dumping and burning of pads.</li> <li>• Cleaner, safer school environments.</li> <li>• Reduced risk to sanitation workers.</li> </ul>



## Enablers & Barriers

### » What worked:

- Demand-first approach built strong ownership.
- Convergence with district systems ensured financing and sustainability.
- Appointment of nodal teachers strengthened monitoring.

### » What was Challenging:

- Deep-rooted taboos required significant sensitisation efforts.
- Ensuring proper Operations and maintenance of incinerators.
- Sustained behaviour change needed continuous reinforcement.

## Sustainability and Scale

### » Sustainability:

Anchored in **school budgets and Panchayat support**, monitored by nodal teachers.

### » Scalability Potential:

District model is replicable across West Bengal and beyond using **15th FC allocations**.

## Key Takeaways

- Lead with **awareness → demand → infrastructure**.
- **Budget convergence (15th FC)** is a practical mechanism for scale.
- **Nodal teachers** are critical for sustainability.
- Integrating disposal into **district SWM plans** enhances climate resilience.

## Further Information

Contact person	Email	Website and other online resources
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# Conclusion: Making Menstrual Waste Management Integral to Menstrual Health

As India makes progress toward increasing access to menstrual products for all, especially through a vibrant and growing commercial market and dedicated efforts by government and civil society to make products accessible and affordable, the challenge of managing the resulting waste can no longer be ignored. Menstrual waste management is not just a technical or environmental issue; it is a core component of menstrual health. Without safe, context-appropriate, and affordable solutions, we risk undermining the very health, dignity, and equity gains we seek to achieve through improved product access, and overall actions on menstrual health and hygiene.

The way forward must pair greater product access and innovation with robust systems for safe disposal, collection, transport, and end-of-life management of menstrual products, supported by strong policy frameworks and community engagement. Addressing menstrual waste holistically will protect people who menstruate, safeguard sanitation and waste workers, and prevent harm to our land, air, and water resources. Few technology solutions today are truly sustainable, both environmentally and in terms of their climate-responsiveness, at a decentralized on-site level or through centralized systems. To build a sustainable, climate-resilient future, we must significantly increase investments in research and development, pilot and test innovative approaches, and foster partnerships that enable replication, adaptation, and scale.

There can be no comprehensive menstrual health without safe menstrual waste management — and now is the moment to act.

Table 4: Overview of case studies in the compendium

Case study	Menstrual waste management solutions		
	Menstrual product solutions	Disposal, segregation, collection and transport	End of life treatment
Real Relief's GoPad			
Papaya's blood coagulating pad			
Anabio's flushable pad			
Aakar's compostable pads			
Nishkaam innovations			
Baala's reusable pad			
Gramalaya's reusable pad			
RNisarg's reusable product basket			
RUTU menstrual product basket			
Ruthu Prema's menstrual cup*			
Humjoli Foundation's Dot of Dignity			
SWaCH's Red Dot initiative* #			
AAKRI's Tech-Enabled Solution			
Hasiru Dala* #			
DLR Prerna's comprehensive approach* #			
UNICEF's menstrual waste management model (Jharkhand)* #			
UNICEF's district wide convergence model (West Bengal)* #			
WASH Institute's integrated model (Bihar)*			
WASH Institute's integrated model (Uttar Pradesh)*			
Sanitation First's burning chambers			
CFAR's deep burial pit			
WaterAid India's deep burial pit (Karnataka)			
WaterAid India's deep burial pit integrated approach (Chhattisgarh)*			
CInI's matka burner			
Padcare Labs's waste to resource solution			

**Legend**

Primary focus of the intervention  
 Secondary focus of the intervention  
 \*Strong focus on policy integration  
 #Strong focus on BCC and capacity building





Menstrual Health Action for Impact (MHAi) is a think tank that advances the health and wellbeing of girls and women through an intersectional lens on menstrual health. The organization supports policy, program, and sectoral shifts using strategic consulting, policy engagement and cross-sector collaboration across low- and middle-income countries.

<https://www.menstrualhealthaction.org/>



India Sanitation Coalition (ISC), launched in June 2015, at Federation of Indian Chamber Commerce and Industry (FICCI), enables and supports safe and sustainable sanitation by bringing multiple organizations on a common platform through a range of catalytic actions. These include supporting the unlocking of WASH financing with focus on the private sector, forging partnerships with allied organizations for leading the discourse on sustainable sanitation; convening, curating and disseminating best practices in the sanitation advocacy — space and providing inputs into the policy aspects of sanitation through participation at allied forums.

<https://www.indiasanitationcoalition.org/>

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## Social Link

