

SCALING UP ACCESS TO MENSTRUAL HEALTH IN THE GLOBAL SOUTH

Improving product quality and
access to reusable options

A report by

HYSTRA
hybrid strategies consulting



MAY 2023



A shopkeeper selling SoSure pads by AFRIPads in Kampala, Uganda

Credits: Hystra

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Please direct all queries about this report to Lucie Klarsfeld McGrath: lkarsfeld@hystra.com or Jeanne Charbit: jcharbit@hystra.com

Authors: *Louise Berthault, Jeanne Charbit, Lucie Klarsfeld McGrath*

Contributors: *Simon Brossard, Joana Furquim, Olivier Kayser*

Copy editing: *Charlotte Taylor*

Graphic Design: *Re-emerging World*

Credit for cover pictures: *Aakar Innovations (top); Real Relief (bottom left); Ruby Cup (bottom right)*

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A Youtube video by Sirona about how to use and wash a menstrual cup

Credits: Sirona

TERMS AND ACRONYMS

B2B	Business-to-Business
B2C	Business-to-Consumer
BTL	Below-the-Line
CAGR	Compound Annual Growth Rate
CBO	Community-Based Organization
Femcare	Feminine Care
FMCG	Fast-Moving Consumer Goods
FAQ	Frequently Asked Question
HQ	Headquarters
IP	Intellectual Property
ISO	International Organization for Standardization
IUD	Intrauterine Device
MHH	Menstrual Health and Hygiene
NPS	Net Promoter Score
NGOs	Non-Governmental Organizations
P&G	Procter & Gamble
R&D	Research and Development
SAP	Superabsorbent Polymer
SDG	Sustainable Development Goal
SHG	Self-Help Group
SKU	Stock-Keeping Unit
SRHR	Sexual and Reproductive Health and Rights
SROI	Social Return on Investment
YoY	Year-on-Year
WASH	Water, Sanitation, and Hygiene



A distribution program of Anandi disposable pads conducted by Aakar Innovations in India

Credits: Aakar Innovations

EXECUTIVE SUMMARY

This report, supported by the [Bill & Melinda Gates Foundation](#) (hereafter referred to as “the foundation”), aims to analyze the menstrual health and hygiene (MHH) market in the Global South¹ with a market-based lens. In doing so, it seeks to understand the key challenges and opportunities in making quality MHH products more affordable and accessible to low-income menstruators².

This report builds on three complementary data sources. First, a market analysis based on secondary research on eight countries in South Asia and Africa³. Second, a qualitative consumer research in Bangladesh, India, Kenya, Pakistan, and Senegal. Third, an in-depth analysis of eight of the market-based pioneers that we identified as particularly promising, and which aim to provide improved MHH in the Global South beyond the traditional models of feminine care (“femcare”) multinationals.

This research focuses on the three commercial products with the highest proven market potential for low-income menstruators in the Global South (given products’ current price points and menstruators’ purchasing power): Disposable pads, reusable pads, and menstrual cups.

I. Despite the growing adoption of disposable pads, over 500 million menstruators still lack proper access to affordable, quality menstrual products

The penetration of disposable pads is increasing, with an expected 14.8% compound annual growth rate (CAGR⁴) between 2022 and 2026⁵, driven by younger generations that have grown up with this product. As of 2023, 54% of the 540 million menstruators in the eight focus countries of this report use disposable pads at least some of the time⁶. In India, penetration of disposable pads among menstruators is 58%, but rises to 78% among 18-24 year olds⁷.

The growth of this market, as well as qualitative consumer research, shows that low-income menstruators are not only ready to pay for MHH products, but are willing to prioritise buying them over other essential products including shampoo, toothpaste, and food. Low-income menstruators have also developed coping strategies to ensure they have disposable pads available for their menstruation; such as buying them in advance, in case they do not have cash at the time of their menstruation, buying them on credit, or using pads for longer than recommended.

Retail prices of quality disposable pads have decreased in recent years to as low as 0.07-0.08 USD per pad in India and Kenya, thanks to a combination of new companies offering low prices and increased competition. Multinational corporations that benefit from large economies of scale - Procter & Gambler (P&G) in particular – dominate in six of the eight focus markets of this report. Local companies increasingly challenge these bigger players by leveraging their own existing assets (e.g., distribution channels) to launch new affordable brands, thereby putting pressure on prices. For example, [SMC Enterprise Ltd](#) sells Joya pads in Bangladesh that are 10-20% cheaper than the market leader; and have earned a 30% market share in Bangladesh in fewer than 10 years.

1 The Global South includes countries classified by the World Bank under “Low and Low Middle Income Countries” in its classification by income level. From [World Bank \(2022-2023\)](#).

2 The term “menstruators” includes people (usually aged 12-49) who have menstruation at least part of the time. We acknowledge that not all menstruators identify themselves as female.

3 The countries included are (in Africa) Ethiopia, Kenya, Nigeria, Senegal, and South Africa, and (in South Asia) India, Pakistan, and Bangladesh.

4 The CAGR is the annualized average rate of revenue growth between two given years. From [Gartner \(2023\)](#), “*Compound Annual Growth Rate (CAGR)*”.

5 Euromonitor International (2022), “*Sanitary Protection*” reports, in the eight countries of focus.

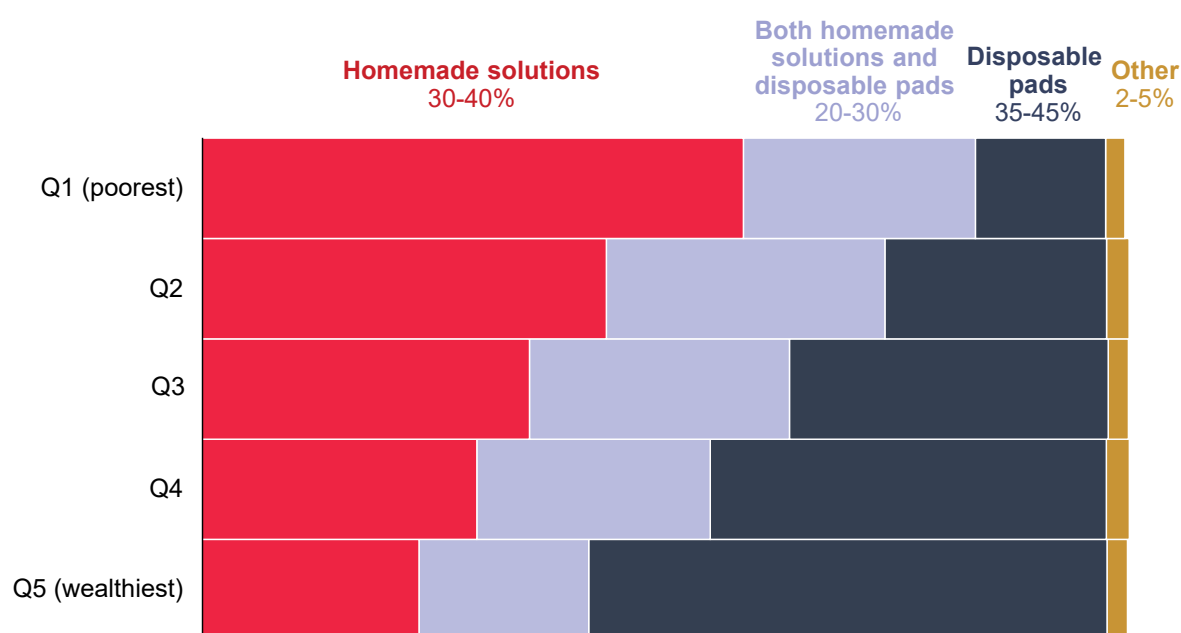
6 The number of menstruators using pads at least some of the time was estimated by LEAP based on population data, pregnancy rates, and the most recent national health surveys. From [LEAP \(2021\)](#), “*Menstrual Hygiene Landscape for Low- and Middle-Income Countries*”.

7 Government of India (2022), “*National Family Health Survey 2019-2021*”.

Further, a few pioneers have developed improved affordable disposable pads with additional benefits for low-income menstruators. These brands answer consumers' key requests in the design of their products: Joya offers quality affordable “belt” products (not requiring underwear); NIA, the disposable pads brand of the non-governmental organization (NGO) [ZanaAfrica](#) in Kenya, has created longer-lasting pads; and [Aakar Innovations](#), an Indian disposable pads company, offers compostable pads at equivalent prices to market-leading products in India.

Despite this positive trend, disposable pads are still unsatisfying for most menstruators in the Global South due to cost, quality, and disposal challenges. Out of the 1.8 billion menstruators in the world (over 20% of the global population), at least 500 million still lack access to products and adequate facilities for MHH management⁸. In the eight focus countries of this report, the penetration rates of disposable pads ranged from 25% (in Bangladesh) to 93% (in South Africa). Even menstruators with access to disposable pads do not see these products as a perfect solution: Menstruators using commercial solutions use, on average, only 4.3 sanitary pads per menstruation⁹, which is well below the estimated 12-15 pads¹⁰ required. Beyond affordability issues, existing research and consumer insights point to low quality as a key reason that disposable pads are used only part of the time. In Kenya, for example, 95% of menstruators report burning and rashes¹¹, either due to poor quality pads or extended use. In addition, given cultural taboos that prevent menstruators from disclosing their menstruation to others, disposal challenges often deter more frequent usage (e.g., shared toilets without bins and a lack of waste management in rural areas). As a result, an estimated 20-30% of menstruators use a mix of disposable pads and homemade solutions, as shown in Figure 1.

Figure 1 - Menstruators in four countries of the Global South, segmented by products used



On each line, 100% = 95 million menstruators from Bangladesh, Nigeria, Kenya, and India (total 475 million)

Source: Hystra analysis based on data from: For Nigeria, PMA (2020), data 2018; for Kenya, PMA (2020), data 2016; for Bangladesh, Government of Bangladesh (2018), “National Hygiene Survey”, data for 2018; for India, Government of India (2022), “National Family Health Survey 2019-2021”. Note: The India data available by wealth quintile was limited to 15-24 year old menstruators. We extrapolated this data to the overall population by adjusting the share of disposable pads to get to a 58% average penetration rate. This corresponds to data for India from LEAP (2021), “Menstrual Hygiene Landscape for Low- and Middle-Income Countries”.

⁸ World Bank (2022), “Menstrual Health and Hygiene”.

⁹ Hystra analysis based on data from: Kenya National Bureau of Statistics and ICF International (2014), “Demographic and Health Survey”; LEAP (2021), “Menstrual Hygiene Landscape” for Bangladesh, India, Kenya, Pakistan, South-Africa, Senegal, Nigeria; Euromonitor International (2022), “Sanitary Protection” reports, in the eight countries of focus.

¹⁰ This is considering a menstruation lasts three to seven days and a menstruator uses on average three pads per day, i.e., 15 pads are required, on average, per menstruation. This is in line with UNICEF’s estimate that 12 to 22 disposable pads are needed per menstruation. From UNICEF (2019), “Guide to Menstrual Hygiene Materials”.

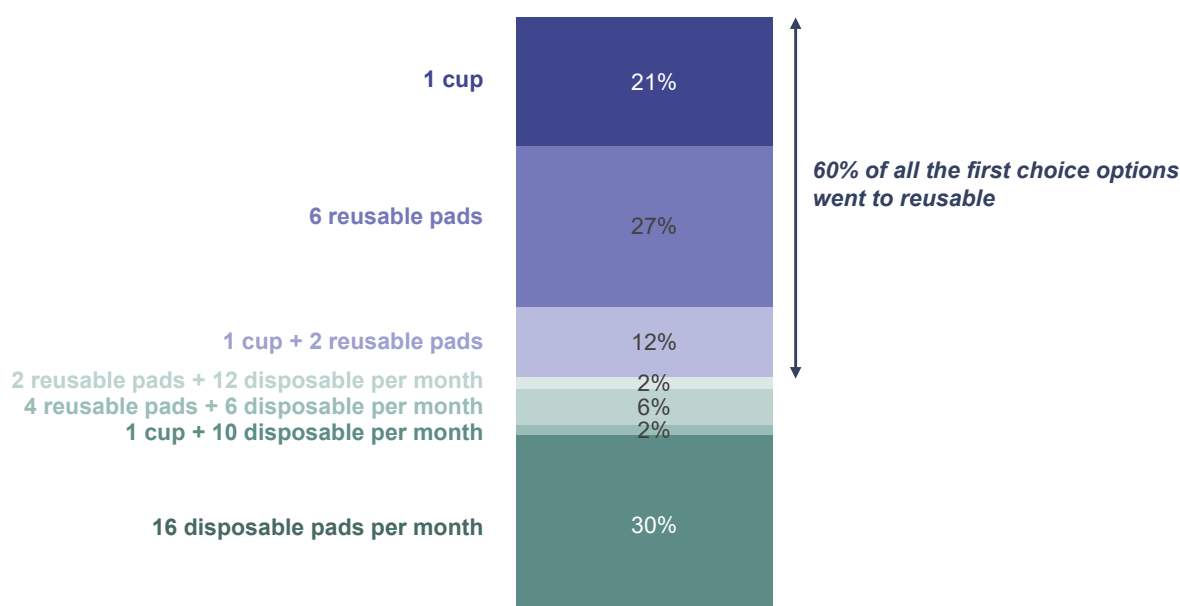
¹¹ ZanaAfrica’s internal (unpublished) research.

These pain points, compounded by long-lasting taboos and a lack of MHH education, lead to a range of coping strategies, with a plethora of menstrual management routines being employed by menstruators. Observed behaviors include: Alternating between brands of disposable pads, depending on available budget; or, only using pads outside the home while using cloths, cotton, toilet paper or even diapers at home, either for budget or comfort reasons. Disposal behaviors include keeping soiled products in one's bag to avoid having to use a public bin, as well as washing blood from disposable pads before throwing them away, to avoid their use in witchcraft.

2. Reusable products could solve many low-income menstruators' pain points

Over half of menstruators rank a reusable option like menstrual cups or reusable pads as their preferred theoretical solution, believing they would solve the pain points of disposable pads. Cups and reusable pads are three to 15 times cheaper per use compared to disposable pads, and, although they require washing, they address the disposal challenge. Qualitative consumer research shows these products generate significant theoretical interest when menstruators know their benefits and prices. As shown in Figure 2, when menstruators ranked their first choice of menstrual product, 30% of first choices went to disposable pads, while 60% went to reusable options¹² (27% for six reusable pads, 21% for a menstrual cup, and 12% for a cup combined with two reusable pads).

Figure 2 - Preferred product(s) to manage menstruation among 198 menstruators, when informed of their prices



Note: Responses from 198 menstruators to the question "Which of these products do you rank as your first choice?"

100% = 239 responses, because some menstruators ranked several products as their first choice.

Source: Bopinc (2023) unpublished research among 198 urban and semi-urban menstruators: 51 in Bangladesh, 45 in Kenya, 52 in Pakistan, and 50 in Senegal. Menstruators were informed of product prices.

¹² Overall, 52% of menstruators (198) ranked a reusable menstrual hygiene product as their (or one of their) preferred options, with some ex aequo choices leading to 60% of all choices expressed (239) being for reusable options.

When effectively adopted, reusable products get positive feedback and long-term usage.

■ **Menstrual cups:**

- Despite the complexity of first use and taboos related to insertion, donated cups can achieve a 60-90% adoption rate, with strong ongoing support;¹³ including in places with limited water and soap availability, such as refugee camps. Indeed, cups can be a convincing value proposition for low-income menstruators: They are the most cost-effective solution over time,¹⁴ and are convenient as they (1) are designed to hold menstrual fluid for eight to 10 hours, (2) are not attached to underwear, and (3) protect menstruators from excessive heat and potential rashes. Existing studies, although small scale, show that 60-90% of menstruators continue to use the cup after five to seven years¹⁵. Furthermore, studies show that recommended hygiene practices are well followed, with 85% boiling their cups immediately after menstruation¹⁶.
- On the commercial front, we see early proof of consumers' interest in markets of both the Global South and Global North. Leading disposable pad companies in the Global North have started branding their own cups, reflecting growing interest from consumers, and the product has started proving its appeal on the Indian market. [Sirona](#), an Indian feminine hygiene brand, has sold one million units to middle- to high-income consumers since 2015 (400,000 in 2022 alone), thanks to a set of digital tactics like online tutorials.

■ **Reusable pads:**

- Donated reusable pads have achieved a 90% adoption rate that continued over time¹⁷, though they are considered less aspirational than disposable pads. This is likely explained by the fact that large distribution programs have often distributed reusable pads of varying quality or pushed for local production, resulting in inconsistent quality. More generally, these products are at least three to 15 times cheaper per use than disposable pads and can be used by everyone (while cups are not appropriate for some menstruators), which explains their theoretical appeal. In the consumer research for this report, over 50% of menstruators in Senegal and semi-rural Bangladesh stated they would choose reusable pads over a similarly priced quantity of disposable pads.
- On the commercial front, one company has demonstrated consumers' willingness to pay and has achieved some repeat purchases; but has not yet built a sustainable model for scale. At its peak, [AFRIPads](#), one of the only reusable pad producers selling this product in retail, managed to sell 230,000 two-pad packs annually, reaching 2% of Ugandan menstruators per year. Yet, the marketing investment required was unsustainable. They are still exploring the best model to enable a sustainable scale-up.

3. Yet, these products have achieved only a 2 to 5% penetration in the Global South and receive very little investment in an overall underfunded sector, due to structural – but surmountable – reasons

Only 2-5% of menstruators in the Global South use reusable products in 2023¹⁸. They mostly include menstruators who benefit from donated products (e.g., pads from [AFRIPads](#) or [Real Relief](#), cups from [Ruby Cup](#)) in emergency or school settings, and, to a lesser extent, menstruators who purchased products in countries where they are available (e.g., [AFRIPads](#) So Sure pads in Uganda, [Real Relief](#) Safepads pads in India, Bangladesh and South Africa, and [Sirona](#) cups in India).

Low private sector investment in reusable options are key drivers for this discrepancy between theoretical and actual choice. Reusable products represent significantly lower overall costs for menstruators, and, thus, also a significantly smaller commercial market for private players than disposable pads. As a result, it is no surprise that reusable products have received less than 1% of marketing and research and development (R&D) investment in the MH market¹⁹. This is clearly insufficient for products that require some behavior change; with first trial remaining a key barrier for menstruators only accustomed to homemade solutions or disposable pads.

¹³ Ruby Cup (2022), "2020-2021 Impact Report".

¹⁴ In India, a cup will cost a menstruator only 0.4 USD per year, compared to 2.1 USD for reusable pads and 15.4 USD for disposable pads.

¹⁵ WoMena Uganda (2019), "Menstrual Cup Interventions Follow Up Study, Uganda – Study Report".

¹⁶ Ibid

¹⁷ UNHCR (2018), "Pilot study findings on the provision of hygiene kits with reusable sanitary pads"

¹⁸ LEAP (2021), "Menstrual Hygiene Landscape for Low- and Middle-Income Countries".

¹⁹ Hystra analysis based on market data and interviews.

Further, despite the number of menstruators in the Global South, MHH has long been — and remains — an overlooked topic for donors, that struggles to find a home between related sustainable development goals (SDGs). MHH has causal links with good health (SDG3), quality education (SDG4), gender equality (SDG5), and clean water and sanitation (SDG6). Yet, it is not explicitly articulated in any of the SDGs. As a result, MHH is a secondary topic for many donors (touched on as part of WASH, sexual and reproductive health and rights (SRHR), and/or gender equality initiatives) but a main priority for none.

This general underinvestment is at least partly due to the complexity of the issue, which cannot be solved by product-centric approaches alone, but rather requires a range of products, coupled with education to reduce the taboo and stigma around menstruation. Private and philanthropic approaches around menstrual products have tended to sell or give away one type of product at a time — with few exceptions — rather than offering a full choice of solutions to menstruators. Further, they have not always provided the required explanation for these products. Yet, as seen above, menstruators typically prefer a mix of solutions which evolves between menstruations and throughout life stages; and new products require support to encourage adoption. Pioneers such as [Her Ground](#) in Pakistan or Sirona in India have taken a menstruator-centric rather than product-centric approach: They now offer a full suite of product options to menstruators, together with educational videos. Yet, for now, this is a new — and still too marginal — trend.

A final reason for underinvestment compounding the complexity of the issue is the lack of large-scale data available to quantify menstruators' preferences; the interest in reusable products; their market potential (for private players); and the potential social (and economic) return on investment of pushing these solutions (for government or philanthropic players). Beyond hampering investments, this lack of data also leads to strong, contradictory, and emotional opinions on these products.

4. Offering menstruators a real choice will require earlier menstrual health education for all, and access to a better quality, wider range of products, including reusable products

Although the implications of these findings vary from country to country, there are some overarching recommendations for the sector to address the most pressing issues:

- **Improve menstrual health awareness and education, to address persisting taboos.** Taking as an example the ZanaAfrica partnership with the Kenyan government, to offer a MHH curriculum in schools, public-private partnerships can improve MHH awareness via education campaigns. By doing this early enough, they can reach young people before they menstruate, thus avoiding poor first menstruation experiences. This approach would, ideally, be combined with better product availability. Furthermore, as observed in India with the success of the “Pad Man” movie, or in Europe with menstrual cup placement in TV series, talking about menstruation in mainstream media (also including radio and newspapers) can significantly contribute to debunking myths and normalizing this topic.
- **Generate data and evidence to support all players in making appropriate decisions.** Donors can invest in quantitative research to validate the impact case for investments in the MHH sector. They can do this by measuring the social return on investment (SROI) — for which indicators would need to be pre-defined — of various types of interventions that combine product access and education, helping the sector align on a common theory of change and common metrics.
- **Test commercial approaches for reusable products further, to validate their business case and motivate more players to invest.** Donors and private players could (co)invest in market tests for reusable solutions to determine their business potential for low-income menstruators:
 - Donors could support market tests on the cost effectiveness of go-to-market approaches for reusable products (in particular, to understand the costs required to successfully market them), to determine which products and activities are sustainable enough for the private sector, and which ones would need support from governments and donors. They could leverage existing efforts from leading reusable product brands, supporting them to trial new marketing tactics for middle-to-low-income menstruators, e.g., Sirona to adapt its approach to lower-income quintiles in India, or AFRIPads to expand its retail presence with cost-effective marketing efforts in Uganda.

- If these market tests show sufficient product adoption to justify an investment, donors could support existing quality private players (e.g., large femcare brands, existing reusable players, and large healthcare brands/distributors) in scaling up and entering new geographies. Based on consumer research, reusable pads show promise in Senegal, Nigeria, and India, while menstrual cups hold potential in Kenya, Bangladesh, and Pakistan.
 - Femcare brands could consider adding menstrual cups and/or reusable pads to their portfolio of products, as they have started doing in the Global North. While this may lead to some cannibalization of their disposable pad business, it may also help to prevent their existing consumers from switching to other brands that offer reusable options; and will help truly and fully serve menstruators.
 - Healthcare distributors (e.g., pharmacies and community health worker networks) reaching low-income segments could replicate SMC Enterprise Ltd.'s success in Bangladesh, by leveraging their unique distribution assets to add MHH products to their portfolio; ideally as a range of products, including reusable options from the get-go.
- **Address quality issues for all products:**
- Policymakers and donors can help address quality issues by establishing and enforcing internationally agreed standards (e.g., current work done by the International Organization for Standardization (ISO)) for both disposable pads and reusable products²⁰.
 - Femcare brands can draw inspiration from social entrepreneurs like Aakar Innovations, to invest in the R&D sweet spot to develop more affordable, healthier, and environmentally-sustainable products. For instance, exploring the potential of local natural raw materials (especially for Superabsorbent polymer (SAP)) could be an interesting opportunity to reduce costs and limit rashes (thanks to the lack of chemicals used in material production), while reducing the environmental impact of disposable pads.
 - Donors can support quality players, in their own tenders and, possibly, in others', via conditional co-funding. They should also reconsider the idea of local pad production, that has not proven to be the most effective to ensure access and affordable prices. Self-made/decentralized production has faced quality issues, as monitoring a decentralized model is complex at scale. Furthermore, production costs usually end up higher than for centralized models that benefit from some automation and large economies of scale.

We hope that this report can be a call to action for all required stakeholders to join forces in helping menstruators access the choice of products they need and obtain the freedom to exercise it without taboos or prejudice.

For more information, this report is structured as follows:

- “About this report” introduces the goals, as well as the methodology used for this report.
- Section one provides an overview of the general landscape of MHH and the common challenges all products face.
- Sections two, three, and four describe the specific advantages and challenges of disposable pads, menstrual cups, and reusable pads, respectively.
- Section five details the above recommendations.

²⁰ For more information on this current work, see this article by The Case for Her (2022), “*The World Votes YES to Menstrual Product Standards*”.

ABOUT THIS REPORT

Context and objectives: Shedding light on the menstrual hygiene market in the Global South, its challenges, and solutions to scale-up access to appropriate menstrual health and hygiene (MHH) practices and products for all menstruators

As of 2023, at least 300 million²¹ menstruators²² menstruate on any given day. Overall, there are an estimated 1.8 billion menstruators²³ — over 20% of the world's population. Of these 1.8 billion, the World Bank estimates that at least 500 million lack access to menstrual products and adequate facilities for MHH management²⁴ and as such do not benefit from proper MHH.²⁵

Despite the number of people affected and MHH's link to several SDGs, including good health, quality education, gender equality, and clean water and sanitation, MHH has long been — and is still — an overlooked topic. Very few studies have looked systematically at MHH behaviors and solutions, and, while some have examined market solutions for low-income menstruators, none have done so at a systemic level.

In this context, this report, supported by the [Bill & Melinda Gates Foundation](#), aims to analyze the MHH market with a market-based lens, to more systematically:

1. Understand the key challenges in making MHH products more affordable and accessible to low-income menstruators in the Global South.
2. Identify and document best practices from sector pioneers that have successfully overcome some of these barriers, commercially.
3. Identify investment opportunities for policymakers, donors, and companies, and help foster the development of the MHH market in the Global South.

Scope: Commercial solutions with some proven market traction in markets of the Global South - disposable pads, menstrual cups, and reusable pads

The focus of this research has been limited to the three commercial products with the highest currently proven potential for low-income menstruators in the Global South:

- Disposable pads: The most widely used commercial products worldwide, in 2023, including in markets of the Global South.
- Menstrual cups: The most economical solution over time for menstruators, which has shown early success in markets of the Global South; for example, over one million cups have been sold in India, to date²⁶.
- Reusable pads: Requiring the lowest initial investment among reusable options, reusable pads are the closest to disposable pads and cloth, in terms of usage, and have already been sold commercially (over half a million two-pad packs have been sold in East Africa, to date²⁷).

We excluded tampons due to their limited benefits, in terms of affordability, and limited appeal; with tampons having less than 10% market shares globally²⁸ despite relatively high awareness. Despite the growing interest in menstrual panties, we have not explored these products in detail. This is because they are more expensive (10-14 USD for three [BeGirl](#) panties²⁹) compared to alternative reusable options, like pads and menstrual cups (e.g., it costs 3.2 USD for a cup in India, and 2 USD for two reusable pads in Uganda). This makes menstrual panties difficult for low-income menstruators to purchase — even if they represent a relevant menstrual management solution.

21 World Bank (2022), “*Menstrual Health and Hygiene*”.

22 The term menstruators includes people (usually aged 12-49) who have menstruation at least part of the time. We acknowledge that not all menstruators identify as female.

23 UNICEF (2023), “*Menstrual Hygiene*”.

24 World Bank (2022), “*Menstrual Health and Hygiene*”.

25 Menstrual health and hygiene (MHH) can be defined as menstruators “using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear.” WHO and UNICEF (2012), “*2012 Annual Report*”.

26 By the company Sirona; see section three for more details.

27 Data from the company AFRipads; see section four for more details.

28 Global Market Insights (2022), “*Menstrual Hygiene Management market report*”.

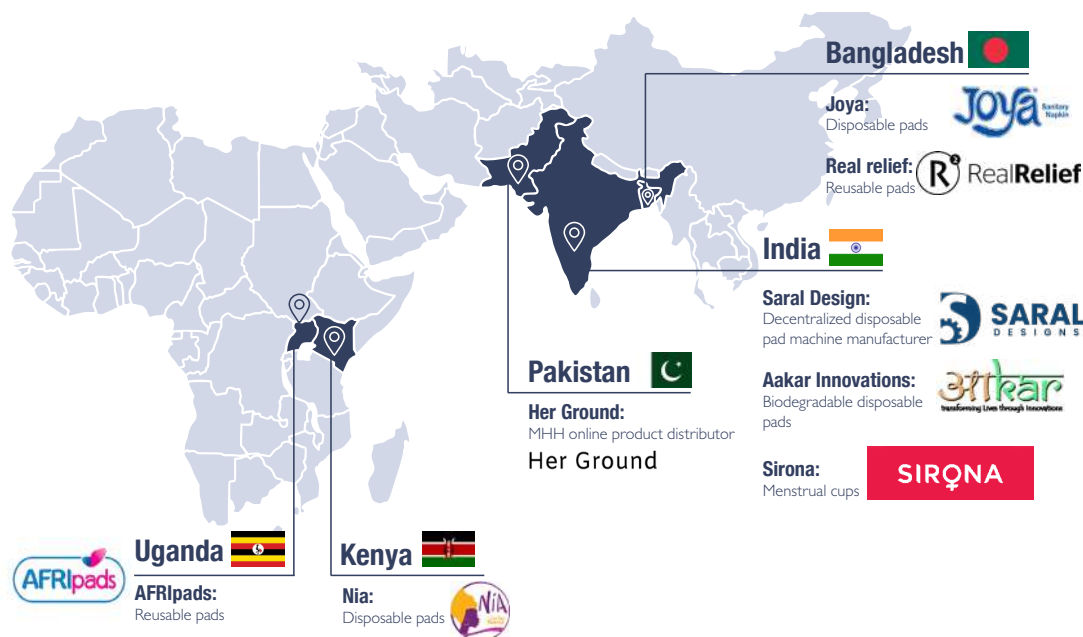
29 Based on Kasha sales price, as of March 2023.

Methodology: An approach combining market intelligence, consumer insights, and deep-dive case studies into pioneering organizations tackling this market

This report is based on three main new pieces of research:

- A market analysis based on secondary research on eight countries in South Asia and Africa³⁰, conducted between August and October 2022 by [Hystra](#).
- Qualitative consumer insight research on Bangladesh, Pakistan, Kenya, and Senegal, conducted by [Bopinc](#) between December 2022 and April 2023. We also included findings from research by [PSI](#) in Ethiopia in 2017³¹, by [ThinkPlace](#) in Nigeria in 2020-2021³², and by [Dalberg](#) in India in 2022-2023. Unless specified otherwise, all quotes in this report originate from one of these pieces of research.
- An in-depth analysis of the market-based pioneers aiming to provide improved MHH to Global South menstruators. The criteria for selection of the eight case studies were the following:
 - They are all for-profit organizations working in the MHH sector, producing or distributing disposable pads, reusable pads, and/or menstrual cups.
 - They mainly operate in the Global South.
 - Experts recognize them as best practice organizations in this space.

Figure 3 - Locations of the eight companies studied in this report that sell MHH-related products



BOX I: Case studies done for this report (shown in Figure 3) in alphabetical order.

- **Aakar Innovations:** Created in 2010, Aakar Innovations sells compostable and organic disposable pads that were initially manufactured through women-supervised mini factories. Aakar provided them with the machine, raw materials, and initial training, with the objective of offering access to menstrual pads in underserved rural areas. With multinational brands increasingly present in these markets, Aakar Innovations centralized their production to remain competitive – they still sell disposable pad machines to local producers in less mature markets, as of 2023. Their headquarters (HQ) are in India, but they are also present in nine other countries in Asia and Africa. As of 2023, product sales are evenly split between business-to-business (B2B) (e.g., governments, United Nations, and foreign distributors) and business-to-consumers (B2C). In 2021, they sold approximately 120,000 packs of disposable pads.

30 Africa: Ethiopia, Kenya, Nigeria, Senegal, and South Africa. South Asia: India, Pakistan, and Bangladesh.

31 PSI, Nene L., and Design Health (2017), "Menstrual Hygiene Management in Ethiopia - A User Insights Approach to Understanding Behaviors, Product Preferences, and Access".

32 ThinkPlace (2021), "Understanding the menstrual health and hygiene of young women in Nigeria".

- **AFRIpads:** AFRIpads has been producing reusable pads in Uganda since 2010 and is now the world's leading social enterprise manufacturing these products. Their pads last at least a year, enabling significant monthly savings compared to disposable pads. They sell most of their pads to institutions and NGOs, mostly outside Uganda, under the AFRIpads brand. They have also achieved unprecedented – albeit still small – success selling reusable pads commercially, with over half a million two-pad packs sold, as of 2022, under their brand, So Sure; mostly in Uganda, and notably in retail (small shops and supermarkets). In 2022 alone, they sold over two million pads.
- **Her Ground:** Started in 2017, Her Ground is an online platform selling disposable pads, reusable pads, tampons, pantyliners, and menstrual cups in Pakistan. They procure products from multiple suppliers within and outside Pakistan and sell reusable pads and cups under their own brand. Their online sales and doorstep delivery in discrete packaging enable women to buy MHH products in a conservative society, where taboos hinder product access. Her Ground also partners with local NGOs that purchase products and distribute them for free or at subsidized prices. In 2022, they sold approximately 21,000 packs of disposable pads online and 50,000 packs of reusable pads to partner NGOs.
- **Joya: SMC Enterprise Ltd** started the disposable pad brand Joya in Bangladesh in 2013. Joya pads are now available in 550,000 retail stores, 110,000 pharmacies, and via a network of 12,000 wholesalers across the country, most of which are in rural areas. Joya Pads are 10-20% cheaper than alternative pads sold on the Bangladeshi market. The brand was built with low-income menstruators in mind: Recognizing that most Bangladeshi women in rural areas and poor socioeconomic groups do not wear underwear, they have launched a pad with elastic belts that hold in place without underwear. In 2021, they sold 31 million packs of pads, reaching over 2.6 million consumers.
- **NIA: ZanaAfrica** began in 2008 and launched NIA as an aspirational Kenyan brand that offers consumer-centric designed products. Their first offering was a quality and long-lasting disposable pad in the “missing middle” price range between cheap, low-quality pads, and more expensive pads sold by multinationals. NIA strongly believes that, while pads are essential, provide dignity, and reduce transactional sex (i.e., sexual relationships in exchange for a service or products - in this case, pads), they truly become transformative when paired with reproductive health education. Therefore, its NGO arm, ZanaAfrica Programs, trains menstruators on menstrual hygiene and reproductive health and advocates against menstruation taboos. As of May 2023, the government is incorporating ZanaAfrica's health education program into the school curriculum. The company also includes health information on its packs and has a free hotline to answer callers' questions and connect them to health partners. In 2022, they sold 500,000 packs of pads.
- **Real Relief:** Since 2016, Real Relief has been producing Safepad, a reusable pad with antibacterial technology. Safepad is produced in India and Bangladesh, as well as in other decentralized, independent production units in Africa and Asia; to which Real Relief sells cut fabric for local assembly. The majority of their products, including those made by their decentralized partners, are sold to institutional clients that donate the products to menstruators. In 2022, they sold two million reusable pads.
- **Saral Designs:** Started in 2015, Saral Designs sells disposable pad machines to local entrepreneurs in India (HQ), Bangladesh, Sri Lanka, Bhutan, Nepal, Afghanistan, Tanzania, Rwanda, Namibia, and South Africa. Their machines range from semi-to high-speed automatic machines, and their clients range from NGOs to for-profit entrepreneurs. Alongside the machines, Saral Designs also provides raw materials for pads, to ensure quality and to offer attractive bulk prices. They also provide their clients with a “Business in a Box” that includes training on manufacturing and distribution, and a free license to use their pad brand. To date, Saral Designs has sold more than 75 machines, potentially facilitating the production of 7.7 million pads annually (approximately one million packs).
- **Sirona:** Started in 2015, Sirona is an Indian e-commerce platform selling feminine hygiene products, mostly to urban women. They have been among the pioneers introducing the menstrual cup in India, offering a low price (3.2 USD) thanks to large volumes, smart online marketing tactics, and an extensive online product catalog that reduces overhead costs per product. Sirona donates cups through their Sirona Hygiene Foundation, which also sells cups at cost to NGOs and supports cup awareness and adoption programs in rural areas. Sirona has sold over one million cups in India, including 400,000 in 2022.

জালনা ফার্মে

পাড়ার নতুন পাত্র, বাঁশবাগান, ঢাকা



A shopkeeper selling Joya pads by SMC in Dhaka, Bangladesh

Credits: Hystra

I. NO SILVER BULLET: MENSTRUATORS NEED A BETTER CHOICE OF MHH PRODUCTS, AND THE FREEDOM TO EXERCISE IT

I.1 WHEN THEY HAVE A CHOICE, MENSTRUATORS CHOOSE THEIR OWN MIX OF SOLUTIONS, BUT THESE PREFERENCES AND PRACTICES ARE LITTLE DOCUMENTED

I.1.1 There is a myriad of MHH products – and no silver bullet

The MHH product landscape includes a myriad of products, each with its pros and cons. Among commercial options, disposable pads are the most popular; much more so than tampons³³. Reusable options have emerged in the past decades, ranging from menstrual cups to discs, pads, and panties. Homemade solutions are still very much a part of the MHH landscape in the Global South and include, but are not limited to, cloth, cotton wool, natural materials, and newspaper.

Figure 4 summarizes each product's pros and cons, corresponding to different pain points for consumers.

Figure 4 - Summary of products' pros and cons

	Disposable pads	Reusable pads	Tampons	Menstrual cups	Cloth
Difficulty of use	Low	Low	High	High	Low
Max wear time	6-8 hours	6-8 hours	8 hours	8-12 hours	4 hours
Need for water at point of change	No	No	No	Yes	No
Need to wash and dry after use	No	Yes	No	Medium (no drying necessary)	Depends if kept or thrown
Need for disposal	Yes	No	Yes	No	Depends if kept or thrown
Health risks (depends on context and general hygiene) ³⁴	Low	Medium - Low	Medium (toxic shock)	Medium-Low	Medium
Cost / cycle ³⁵	1 USD	0.2-0.4 USD	1.5 USD	0.03-0.3 USD	0.1-0.2 USD
Upfront / trial cost	0.5 USD	2 USD	1.5 USD	3-30 USD	0.5 USD

³³ Tampons represent only 2-13% of the market share in our eight countries of focus (Euromonitor (2022)). Note: In this calculation, pantyliners are included within the disposable pads market share.

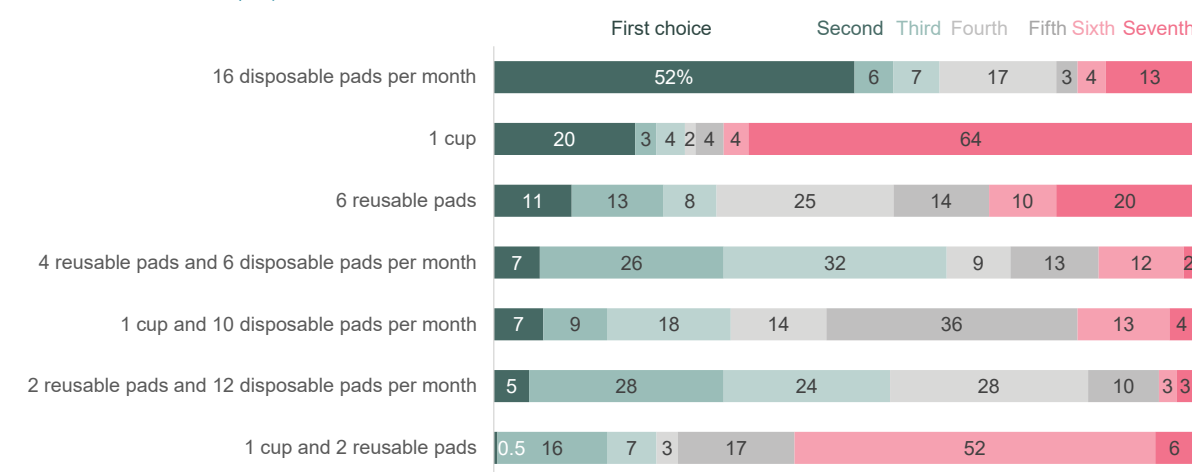
³⁴ Due to the lack of research on the health risks of poorly managed reusable menstrual hygiene products, this assessment is mostly based on consumer feedback and anecdotal evidence.

³⁵ This is based on the following assumptions: For disposable pads, 12 pads at 0.08 USD per menstruation for 12 menstruations; for reusable pads, four pads at 1 USD per pad, lasting one to two years; for tampons, 12 tampons at 0.13 USD for 12 menstruations; for menstrual cups, one cup at 3.5-30 USD for 10 years; for cloth 0.5 USD every three months.

I.1.2 When offered a full choice, menstruators show a range of preferences

In the absence of a silver bullet, it is no surprise that menstruators all choose different products. Previous research led in Kenya by [The Case for Her](#) observed that “girls’ preferences vary and they want to choose among multiple menstrual health products — or even to combine multiple products”.³⁶ Qualitative research led for this project among 198 menstruators in four countries (Bangladesh, Kenya, Pakistan, and Senegal) points toward the same conclusion, reinforcing the need to offer a wide choice of products to menstruators, as shown in Figure 5.

Figure 5 - Product ranking by preference, without knowing product price (percentage of menstruators in the sample)

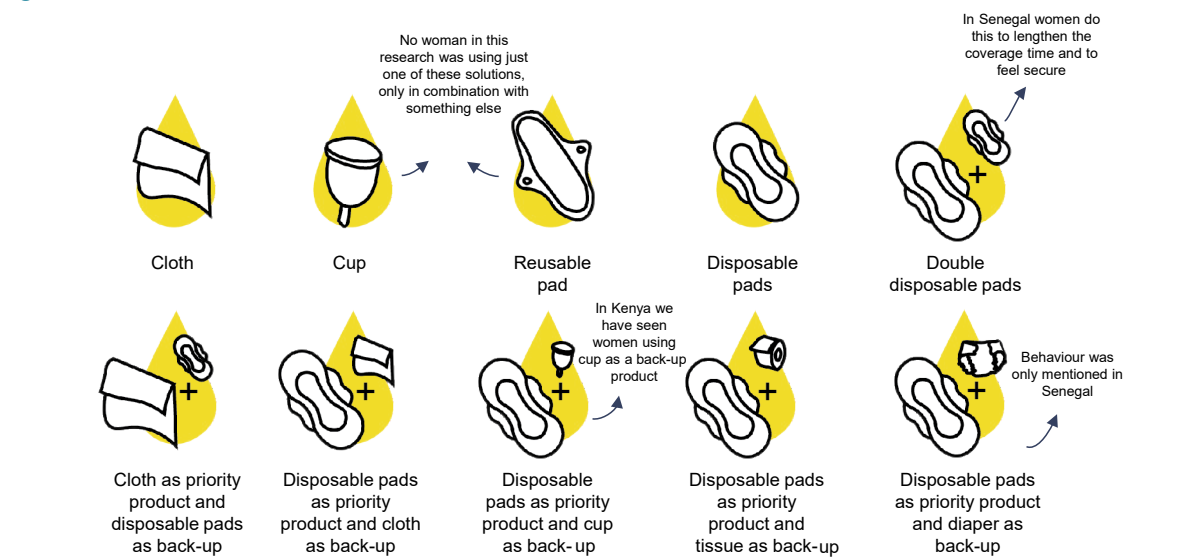


On each line, 100% = responses from 198 menstruators to the question “How would you rank these products in terms of preferences (without knowing their price)?”

Source: Bopinc (2023), unpublished research on 198 urban and semi-urban menstruators: 51 in Bangladesh, 45 in Kenya, 52 in Pakistan, and 50 in Senegal. Note that all choices do not equal precisely 100 due to some menstruators ranking several products as their first choice.

Furthermore, each menstruator often uses more than one MHH product within and between menstruations, leading to a very wide range of possible combinations. Qualitative interviews with menstruators show a wide range of possible mixes, including among menstruators of similar socioeconomic levels: In the words of one MHH expert, “there are as many menstrual routines as there are menstruators”. This variety of product combinations is illustrated in Figure 6, based on consumer interviews.

Figure 6 - Examples of product usages and preferences



Source: Bopinc (2023), consumer research (individual interviews) conducted on more than 60 menstruators in Bangladesh, Kenya, Senegal, and Pakistan.

36 The Case for Her (2019), “The Sheosk Study: A story of choice”.

Beyond physiological differences, different activities and a changing budget influence choices during and between menstruations. Across countries, a large share of menstruators opt for homemade solutions at home and for other solutions when going out: “I always use cloths, except when I travel far from home - I use disposable pads” (Bangladesh); “at home I use cut cloths but at work I use pads” (Kenya). Menstruators also adapt their choice to a changing budget: “Sometimes the household expenses are more, so buying pads depends on the month” (India); “we get a basic budget from our husbands and we can’t overspend, so we use both pads and cloth” (India).

Two other so far overlooked factors explaining different product preferences are quality and post-use challenges:

- **(Perceived) quality:** Using homemade solutions at least part of the time does not just reflect affordability challenges. It is also the result of poor experience with commercial options: “I prefer using cloths over pads because pads cause itching.” (India); “using pieces of cloth (...) absorbs more.” (Ethiopia). Menstruators’ preferences also seem to be shaped by whether they know of a product mostly from a donation setting, which can lead to them associating it with low quality, as observed in Kenya for reusable pads.
- **Post-use challenges:** Not needing to wash blood is a key reason to choose disposable pads: “My favorite solution is the disposable pad because I will just use and throw away thereafter, without having to go through the process of washing menstruation blood” (Kenya). Conversely, access to disposal facilities is a recurring issue mentioned by menstruators using disposable solutions: “Where I live, the biggest problem is disposal. One of my neighbors put it in her trash and a cat came and tore it apart. It was very embarrassing” (Kenya). More generally, water availability and a private space to dry the product are key conditions for considering reusable pads, while access to a private space (bathroom or other) is an issue for all products; though this is particularly acute for menstrual cups.

1.1.3 While qualitative data provides some insights into menstruators’ behaviors, quantitative data on current and future consumer segments remains scarce

Beyond qualitative data, the absence of large datasets inhibits understanding and segmentation of menstruators based on their product preferences. It also limits the ability to quantify the gap between current and ideal usage. Recent efforts led by the [Reproductive Health Supplies Coalition](#) in their LEAP report³⁷ have aggregated data from multiple countries and sources to better understand the current use of MHH products. Yet, this data does not include the types of products known and available; the frequency of usage and average number of products used per menstruation; or contextual information such as the share of menstruators using underwear or having access to a private bin for disposal. Data regarding the market potential for different solutions is also scarce, especially on menstruators’ preferences if they had a full choice of products. Finally, there is only anecdotal data on the SROI of satisfactory MHH management solutions regarding key development outcomes, with no proven theory of change around MHH impacts.

1.2 DESPITE THIS RANGE OF PREFERENCES, TWO TYPES OF SOLUTION COVER MOST OF THE MARKET: 55-65% OF GLOBAL SOUTH MENSTRUATORS USE DISPOSABLE PADS, OFTEN MIXED WITH HOMEMADE SOLUTIONS, THE OTHER MAIN CONTENDER

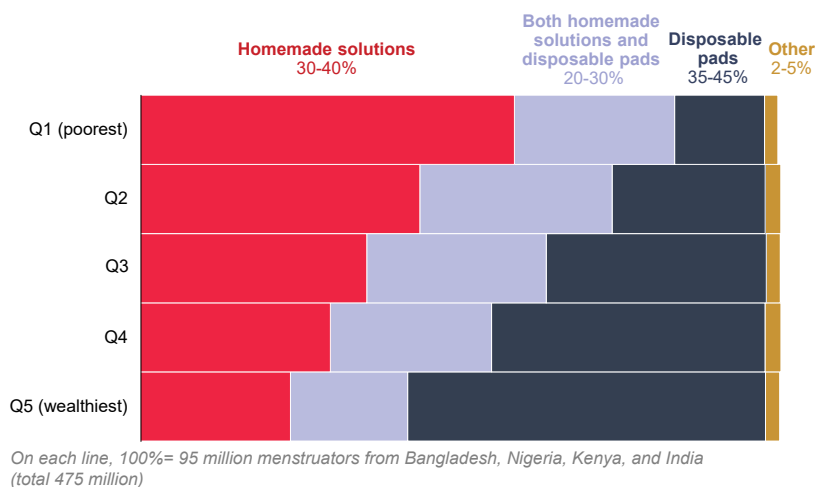
1.2.1 This market domination is notably due to a lack of investment in pushing reusable solutions

The three main consumer segments are those using homemade solutions, those using disposable pads, and those opting for a mix of the two. Building on the little available data from India, Kenya, Nigeria, and Bangladesh, which represent 36% of menstruators from the Global South excluding China³⁸, we have estimated the size of each current consumer segment by wealth quintiles, as shown in Figure 7.

37 Weinberger M., et al (2021), “LEAP: Landscape and Projection of Reproductive Health Supply Needs”.

38 LEAP (2021), “Menstrual Hygiene Landscape for Low- and Middle-Income Countries”.

Figure 7 - Menstruators in four countries of the Global South, segmented by products used

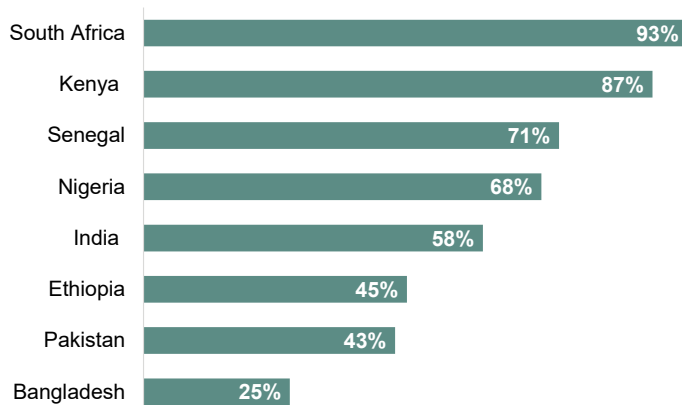


Source: Hystra analysis based on data from: For Nigeria, PMA (2020), data for 2018; for Kenya, PMA (2020), data for 2016; for Bangladesh, Government of Bangladesh (2018), "National Hygiene Survey", data for 2018; for India, Government of India (2022), "National Family Health Survey 2019-2021". Note: the India data available by wealth quintile was limited to 15-24 year old menstruators. We extrapolated this data to the overall population by adjusting the share of disposable pads to get to a 58% average penetration rate. This corresponds to data for India from LEAP (2021), "Menstrual Hygiene Landscape for Low- and Middle-Income Countries".

We estimate that approximately 30-40% of menstruators in low-income settings still use only homemade solutions, due to a lack of access to commercial products, and/or affordability issues, and/or personal preferences. Homemade solutions can be disposable (e.g., tissue, toilet paper, and cotton) or reusable (e.g., fabrics). Qualitative consumer research shows that even reusable fabric solutions are treated as disposable, and are thrown away regularly, due to stains, a change in softness after several washes, or convenience: "I use the same cloth twice during my cycle and burn it after the cycle ends" (India); "I throw the cloth away after five or six uses when the stain doesn't wash away" (Pakistan).

Disposable pads are the main commercial solution in the Global South, with 55-65% market penetration; but there are wide variations across wealth quintiles, age groups, and countries. The richest menstruators are four times more likely to use disposable pads than the lowest quintiles. Based on Indian data³⁹, the younger generation (15-24 year olds) is twice as likely to use disposable pads as their older peers. Countries also show wide disparities in their disposable pad use, as shown in Figure 8. This can be explained not only by large differences in income levels but, also, at least partly, by the level of taboos around menstruation that have slowed down market growth in some cases.

Figure 8 - Market penetration of disposable pads (percentage of menstruators using pads at least part of the time)



On each line, 100% = Number of menstruators in the country, in million (16 in South Africa; 14 in Kenya; 4 in Senegal; 44 in Nigeria; 368 in India; 27 in Ethiopia; 55 in Pakistan; 48 in Bangladesh)

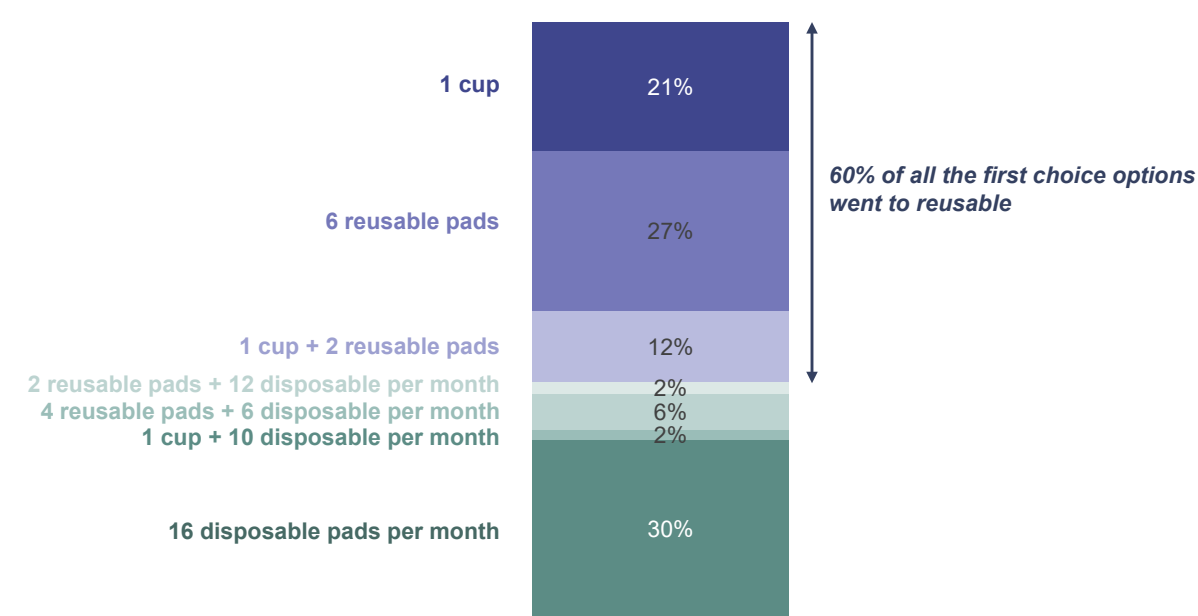
Source: Kenya National Bureau of Statistics and ICF International (2014), "Demographic and Health Survey"; LEAP (2021), "Menstrual Hygiene Landscape for Low- and Middle-Income Countries" for Bangladesh, India, Kenya, Pakistan, South-Africa, Senegal, and Nigeria.

39 Government of India (2022), "National Family Health Survey 2019-21".

At least a quarter of these menstruators use disposable pads alongside a range of homemade solutions, resulting in an average number of pads per menstruation of only 4.3⁴⁰ in the eight focus countries of this report. As discussed above, this low usage is driven not just by budget constraints but also by preferences for cloths, owing to the low quality of disposable pads, as well as disposal challenges.

Reusable solutions represent only 2-5% of the market despite strong consumer interest, as shown in the ranking exercise in Figure 9. This is likely because reusable solutions have received more than 100 times fewer investments in R&D and marketing than disposable products⁴¹. The lower cost of reusable pads and cups over time, for consumers, means a smaller market size over time for producers, brands, and distribution channels. Indeed, fewer companies have invested in developing this market. This is also reflected in product availability in shops. While pharmacies or shops carried disposable pads in all the countries studied for this research (at least in urban areas), reusable products were mostly available on online platforms (e.g., Sirona in India, Her Ground in Pakistan, and [Kasha](#) in Kenya). This lack of visible presence and immediate availability, stemming from a lack of marketing investment and push by large brands, partly explains their low penetration.

Figure 9 - Preferred product(s) to manage menstruation among 198 menstruators, when informed of their prices



Note: Responses from 198 menstruators to the question “Which of these products do you rank as your first choice?”
100% = 239 responses, because some menstruators ranked several products as their first choice.

Source: Bopinc (2023), unpublished research on 198 urban and semi-urban menstruators: 51 in Bangladesh, 45 in Kenya, 52 in Pakistan, and 50 in Senegal. Menstruators were informed of product prices.

40 For more information, see section two on disposable pads.
Income Countries” for Bangladesh, India, Kenya, Pakistan, South-Africa, Senegal, and Nigeria.
41 Based on Hystra analysis of investments made by the largest reusable menstrual hygiene product organizations.

1.2.2 Once they have tried commercial products, menstruators prioritise these and show a relatively high willingness to pay for them

The fast-growing penetration rates of disposable pads and qualitative consumer research show that low-income menstruators are ready to pay for MHH products. Once menstruators have adopted commercial solutions, they tend to prioritize them very highly, often compromising on other personal items (like shampoo or toothpaste) to buy them: *“I have never given up on buying pads; when on a budget I do not buy unnecessary items like takeout food for kids. Also, I never go for a less expensive brand.”* (Pakistan); *“we would rather fast and buy pads than eat and not buy pads.”* (Senegal). Even on a budget, menstruators are usually ready to pay for quality, preferring medium-priced items over more affordable – less trusted – options. In Senegal, for example, the low-price segment represents only 27% of the market volume versus 69% for the medium-price segment, and 4% for the premium one⁴². Even when menstruators decide to use homemade solutions, anecdotal evidence shows that they are ready to pay for good-quality fabric: *“There are some types of cloth which have similar comfort like pads, such as Netella, which I buy in the market.”* (Ethiopia).

Mothers make disposable pads a priority for their daughters, even if they keep using homemade solutions themselves, as they perceive MHH products as necessary for their children’s wellbeing: *“I use cloth but I saw pads on TV and heard about them from people, so I gave pads to my daughter”* (Bangladesh); *“I use pads and my sisters also use pads but my mom uses cloth.”* (Pakistan).

1.3 BEYOND MHH PRODUCT ACCESS AND KNOWLEDGE, SOCIAL NORMS AND TABOOS STRONGLY SHAPE PRODUCT CHOICE AND MENSTRUAL ROUTINES

Taboos and myths around menstruation limit access to trustworthy information, including on products. Menstrual blood – and menstruation in general – is still taboo in most societies, affecting menstruators’ behaviors. For example, some menstruators avoid men while they menstruate: *“We feel shy if we buy pads in front of men.”* (India); *“I don’t like to tell anyone about it. I try to keep it away from my husband.”* (Pakistan). The general taboo on the topic leads to a lack of information, with misconceptions about products impacting menstruators’ choices. For example, some menstruators believe that disposable pads can cause infertility: *“The pad releases some toxins that get into your body and make you sterile.”* (Kenya). Others believe that using a menstrual cup can endanger virginity: *“If I give that to my daughter, it is like initiating her into sex. If she starts inserting it, she will get sexually aroused.”* (Kenya); *“If you are a virgin, no tampons and no menstrual cup.”* (Senegal).

These taboos mean that menstruators are likely to continue using the first type of product they are given, and only change their routines at key moments in their lives. Many young menstruators do not know what happens to them when they get their first menstruation: *“I was very small, I got very scared, I had no idea of what was happening.”* (Pakistan). As a result, they learn about it from the first person who explains it to them, usually a female family member. How this is explained and the product they are given shape their view of menstruation for at least a few years. Three additional milestones can shape product usage:

- Starting university or work, which is usually the first-time menstruators are outside of the home and able to try new products and meet new influencers.
- Getting married, as husbands influence or own financial decisions. This is also a time when menstruators get new responsibilities and potentially start to use contraception (which can affect their menstrual flow).
- Having children, which might affect their flow and morphology, and other menstruators are likely to share tips at this moment of their lives.

More broadly, these taboos play a role during every menstruation: Depending on the social norms, menstruators may have to avoid certain activities, or, conversely, they may be expected to carry on with their normal routine, regardless. Those who have to avoid certain activities generally stay at home and favor menstrual hygiene products they can use discreetly. Those who need to go to work and move around freely will adapt their choices to the comfort they need when outside the home, and to the infrastructure available for change or disposal.

42 William and Marshall Strategy (2022), “Senegal: Feminine Sanitary Products Market”.

These taboos also impact purchasing routines, with menstruators choosing where to buy their products based on where is most discrete. Observed behaviors include menstruators choosing to buy from supermarkets where they feel anonymous, or getting someone else (a family member, even sometimes children) to purchase for them. Conversely, some menstruators choose to buy from a trusted local shop, where they can have “secret codes” with the shop attendant. One example of this is calling boxes of pads “chocolate croissants at 600 FCFA” (Senegal); with 600 FCFA being much more expensive than actual chocolate croissants, and a clear message understood by the shop attendants. Except in places where pharmacies are the favored places of purchase, like in Bangladesh, these “under cover” purchasing practices do not provide much opportunity to learn about new products, further limiting menstruators’ choices.

Finally, as already discussed above, taboos around showing blood lead to a range of coping strategies, that in turn impact product choice and post-use behaviors. For example, not having to wash blood is a key reason why menstruators who previously used cloth go on to choose disposable pads. Disposal behaviors for disposable pads include keeping soiled products in one’s bag to avoid a public bin, as well as washing blood from disposable pads before throwing them away, to avoid their use in witchcraft.

1.4 OFFERING BETTER CHOICES TO MENSTRUATORS IN THE GLOBAL SOUTH REQUIRES A DEEPER UNDERSTANDING OF CONSUMERS; HIGHER AVAILABILITY OF QUALITY PRODUCTS, INCLUDING REUSABLES; AND EARLY MENSTRUAL HEALTH EDUCATION FOR ALL

1.4.1 Gathering consumer data to help better understand current usage and preferences

There is a broad call in the MHH sector for more detailed data collection on menstruators’ preferences, product usage, and market segments. It is against this backdrop that the foundation has commissioned, in parallel to this report, qualitative consumer research in Bangladesh, Pakistan, Kenya, and Senegal.

These qualitative insights could serve as a basis for the more quantitative research required to size the different market segments and direct funds toward the most pressing challenges and most cost-effective opportunities. For more detail on these research opportunities, see section five (recommendations).

1.4.2 Running early awareness campaigns on menstrual health, including the diversity of MHH options, coupled with product availability

The wide gap between the variety of products used when menstruators have a choice, and the predominance of disposable pads (in comparison to alternative solutions) in the Global South points to menstruators’ need for informed choice; requiring both education and access to all types of products.

More and more governments like in Kenya, in partnership with ZanaAfrica Programs, are implementing MHH sessions in their curriculum. Such initiatives can provide unbiased information to menstruators at a young age to ensure adequate management of their first menstruation, and awareness of SRHR. They would be especially key in countries where taboos about menstruation make it difficult to ask questions, even with other female family members. Such programs would ideally take place around the age of nine or 10, to maximize the chances that young people receive the necessary information before having their first menstruation. These programs should be combined with broader awareness campaigns outside of schools, to provide unbiased MHH information to menstruators at key moments throughout their lives. To ensure MHH product choice is truly effective, these awareness efforts must be coupled with product distribution or redirection to nearby stores where products would be available.



A ZanaAfrica distribution program of NIA pads in Kenya

Credits: ZanaAfrica

2. DISPOSABLE PADS: THE ASPIRATIONAL SOLUTION THAT WORKS IN MOST COUNTRIES FOR MOST MENSTRUATORS, AT LEAST PART OF THE TIME - YET NOT FOR THE ENVIRONMENT?

2.1 DISPOSABLE PADS ARE THE MOST ASPIRATIONAL SOLUTION USED IN THE DEVELOPING WORLD, BUT MENSTRUATORS DO NOT ALWAYS GET WHAT THEY PAY FOR

2.1.1 Disposable pads are praised for their safety, comfort, and convenience

Consumers who use disposable pads often see commercial products as a safer, aspirational solution compared to homemade ones. Menstruators using disposable pads mention hygiene benefits: “Previously, while using cloth, we would dry it on the roof and the cloth would be touched by creatures like lizards. This made me switch to pads.” (India); “I spend on pads because they keep us safe. Otherwise, we end up spending on a doctor if we get some infection from cloth.” (India). Beyond safety, some menstruators acknowledge shame in using homemade solutions that they do not feel with disposable pads: “I don’t want people to know my daughter is using improvised products in this modern time.” (Ethiopia).

Menstruators in the Global South also value the greater comfort and freedom that disposable pads allow, compared to homemade solutions. Menstruators often mention the peace of mind that pads bring, simplifying menstruation management and allowing them to go on with their daily lives: “There is no more comfort than a pad to manage menstruations. Once you wear it there is nothing worrying you.” (Ethiopia); “I like pads. I feel relaxed because there is no tension about stains.” (Pakistan). The difference in comfort compared to homemade solutions is also usually significant: “I like pads because they do not give this “liquid that stagnates” feeling. They absorb very well.” (Senegal); “It is okay to spend money on pads - the comfort pads give me is worth it.” (India). Finally, the convenience goes beyond comfort, as disposable pads also solve concerns around post-use and, in particular, washing blood: “I like disposable pads because of convenience. I do not want to wash or even touch menstruation blood.” (Kenya).

2.1.2 Yet, quality issues create distrust in the market, often leading menstruators to pay a premium for well-known brands - or those making the most impressive claims

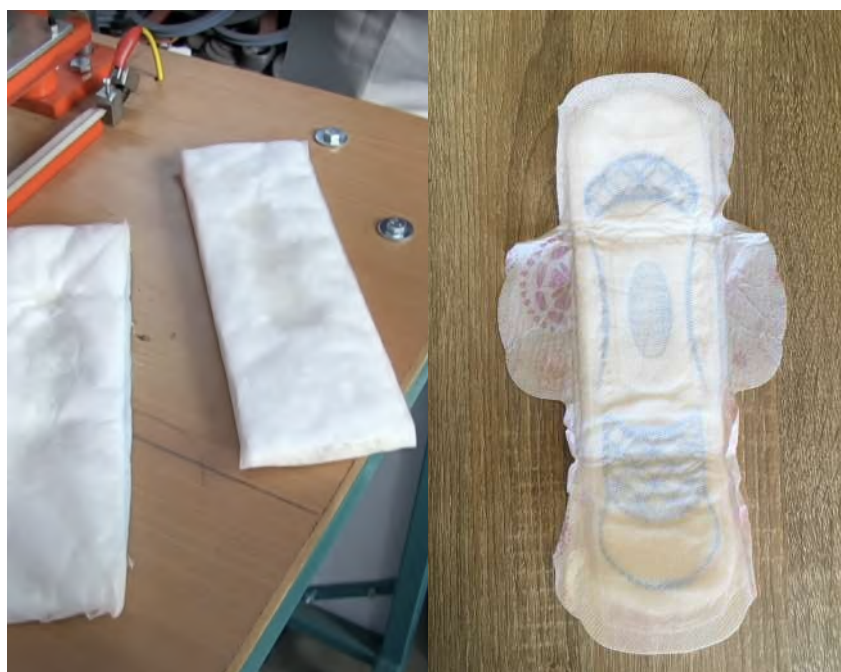
Many pads do not deliver on their promises. As Maria Carmen Punzi, a menstrual health researcher and activist, confirms: “Quality is one of the key pain points in disposable pads at the moment. It differs a lot across brands and countries”. Indeed, current markets in the Global South lack any sort of mechanism for quality assurance, leading to three issues: Poor performance, potentially harmful impacts on health, and misleading claims.

First, some commercial pads are very low quality and do not meet menstruators’ basic needs regarding comfort, absorption, and protection from leaks. Low-cost commercial pad brands have been reportedly mentioned as causing rashes or not preventing leaks. Menstruators are also at risk of buying counterfeit products. In South Africa, for instance, illegal pad manufacturing units were producing counterfeit versions of *Always* pads (P&G’s brand) that contained fewer pads per pack and were of poorer quality (e.g., thinner, less sticky) and which were even reported to be contaminated with bacteria⁴³.

⁴³ Ross H., and Bill & Melinda Gates Foundation (2020), “An Economic Assessment of Menstrual Hygiene Product Tax Cuts”.

Decentralized production of pads can also raise quality issues. Decentralized pad-making machines, costing only a few thousand dollars and being easy to use (manual or semi-manual with simple production steps), became popular among NGOs and small entrepreneurs, especially in India after the 2018 “Pad Man” story and movie⁴⁴ contributed to their fame. They are, in theory, great for providing access to pads in communities with no or low commercial sales. However, they oversimplify production (e.g., not including wings for a simpler design leads to less grip on the underwear), and use low levels of automation, with direct consequences for quality (e.g., bad sealing leading to disintegration, or a lack of (or too much) glue leading to discomfort). A social worker from the [Mythri Speaks](#) NGO tried such pads and reported: “I found the quality highly questionable – it would hardly last an hour before needing to be changed. And even the adhesive was of such poor quality that when one tries to remove it, it just sticks and then the pad rips apart making a mess”. Menstruators receiving these pads within the same distribution program also expressed dissatisfaction: “If we want to give our daughters sanitary pads, we’d much rather buy the good quality ones available in the market.”⁴⁵ (India).

Picture 1 - Comparison of pads manufactured by manual production units (on the left) and automated centralized units (on the right).



Credit: AFP News Agency (left), Hystra (right).

Such quality issues have led menstruators to choose “safer” (and more expensive) branded options or to go back to homemade solutions, at least part of the time. Menstruators tend to turn to branded products to protect themselves from quality issues: “I ensure that I buy the right pads which for me is Always, not the cheap ones.” (Kenya). Alternatively, they revert to homemade solutions for comfort, after having tried plasticky, low-quality, disposable pads: “Abujedi [a local fabric that menstruators use to make homemade pads] is better at absorbing fluid than pads distributed in school by NGOs.” (Ethiopia); “I prefer cloth over pads because pads cause itching.” (India). “With disposable pads I have chafing and itching, which I do not have with the cloths. I only continue with the pads because it is not practical to change cloths and wash them at the office.” (Senegal).

Beyond poor design, some pads include harmful chemicals that have immediate comfort impacts, and potentially longer-term effects on menstruators’ health. A study released by [Toxics Link](#), based on previous global research and analysis of 10 products in India, showed that almost all pads analyzed contained harmful chemicals (e.g., phthalates used for elasticity, volatile organic compounds used as fragrances or adsorbents). Such chemicals can cause immediate health problems like rashes or urinary tract infections — especially if they are worn for

44 “Pad Man” is an Indian movie released in 2018 based on the true story of Muruganantham Arunachalam, an Indian entrepreneur known as “Pad Man”, who became famous for inventing a low-cost and small-scale sanitary pad manufacturing machine. Large-scale media coverage of his invention helped raise awareness of MHH and generalized small-scale machines.

45 Mythri Speaks (2018), “Padman – The Real Story of How He Shot to Fame by Selling Shame”.

too long, which is common in low-income settings — and can have long-term effects on menstruators' health, including, but not limited to, their reproductive health, fetal development, and the cardiovascular system⁴⁶. This preliminary evidence calls for further research, to assess the potential impact of such products on the health of menstruators.

On top of the impact of chemicals when menstruators come into contact with them directly, if pads are burned as a way of disposing of them - a method used by, e.g., 28% of menstruators in India⁴⁷ - the chemicals can have a secondary impact on the health of menstruators and their relatives. When products containing synthetic SAP (a material used for absorption), cotton bleached with chlorine, or plastics are incinerated, they release toxic gases (e.g., dioxin and furan) which are harmful, even in trace quantities⁴⁸. They can, for instance, cause reproductive and development problems, impact the immune system, interfere with hormones, or lead to cancer⁴⁹. Menstruators also cannot identify which pads contain harmful substances, since, as of 2023, manufacturers are not obliged to mention the materials used on packaging.

Finally, some brands also make unsubstantiated claims about disposable pads to raise prices, creating misleading expectations of what constitutes a quality pad. This is, for instance, the case for “anion pads”, which gained popularity over the past few years in several countries of the Global South (e.g., Senegal, Uganda, and India), where they can be found in retail shops next to leading multinational brands. The “anion” strips included in the pads are infused with negative ions for which brands claim impressive – though yet unproven – benefits, like improving immunity, being anti-bacterial, or eliminating fatigue. To access these claimed benefits, consumers pay a significant premium, for instance twice the price of multinationals' pads in Uganda⁵⁰. Yet, no medical study has supported these claims.

2.1.3 Supporting efforts to develop and enforce quality and safety standards is critical to address this quality challenge

Acting on standards could enable fair price comparisons, directing consumers to the most affordable – yet quality – products. The experience in Bangladesh, for example, has shown that enforced quality standards can help ensure a certain level of quality for products available on the market. The country created rigorous quality standards for disposable pads in 2019. The Government involved manufacturers in the standards' definition, to ensure they were achievable and to create ownership among manufacturers. It also introduced a tax exemption for local manufacturers, including on raw materials, to encourage the local production of products, that already existed and was easier to monitor than imported products. Finally, to ensure enforcement over the long term, the Government monitors the market constantly. Beyond checking products in its independent laboratory, to deliver certificates ensuring quality (that must be renewed annually), it runs random controls, issuing warnings and penalties against defaulting companies. As a result of these rigorous processes, experts and local actors confirm that cheap, poor-quality products are no longer on the market in Bangladesh. However, the impact of this change on access, product price, and consumer trust in the products is still unknown; suggesting the need for an independent study to measure it.

At the global level, the ISO approved in January 2022 the creation of a technical committee to work on the standardization of menstrual products with 12 volunteering countries⁵¹, paving the way for the development of comprehensive and harmonized global standards⁵². While this is encouraging, more support will be required to engage additional countries and enforce standards.

46 Research has, for instance, shown that exposure to phthalates is directly linked to the early onset of puberty, early menarche, and to the development of breast cancer. Other research shows that phthalates can be linked to pregnancy complications, like preterm birth or hypertension. Finally, they can raise cardiovascular risks, like coronary heart diseases or blood pressure problems. From Mahesh P. B., and Amit D., (2021), “*Wrapped In Secrecy: Toxic Chemicals In Menstrual Products*”.

47 Mahesh P., and Mehotra A., (2021), “*Menstrual Products and Their Disposal*”.

48 Mahesh P. B., and Amit D., (2021), “*Wrapped In Secrecy: Toxic Chemicals In Menstrual Products*”.

49 WHO (2016), “*Dioxins and their effects on human health*”.

50 Comparing the price per pad for a pack of eight Shuya pads sold at UGX 5,500 (1.48 USD) to a pack of eight Always pads sold at UGX 2,700 (0.72 USD).

51 The Case for Her (2022), “*The World Votes YES to Menstrual Product Standards*”.

52 Perianes M., et al (2022), “*In Standards We Trust*”.

In addition to setting quality and safety standards, preventing fake claims that mislead consumers is also essential to create trust in the market. The Nigerian Government developed a similar initiative for food products, that can act as a model for disposable pads markets. To ensure all claims are based on real nutritional contents, Nigeria has established strict rules on the type of claims food producers can add to products. For example, brands can claim foods are “a source”, a “good source” or an “excellent source” of vitamins, depending on the level of vitamins present in the product (naturally or added). The claims are verified by the Nigerian National Agency for Food and Drug Administration and Control (NAFDAC) before any product launch⁵³. Disposable pads markets could build on this example to establish clear rules around claims; for instance, making it mandatory to specify when a product contains harmful chemicals or preventing brands from claiming any health benefit until medically proven.

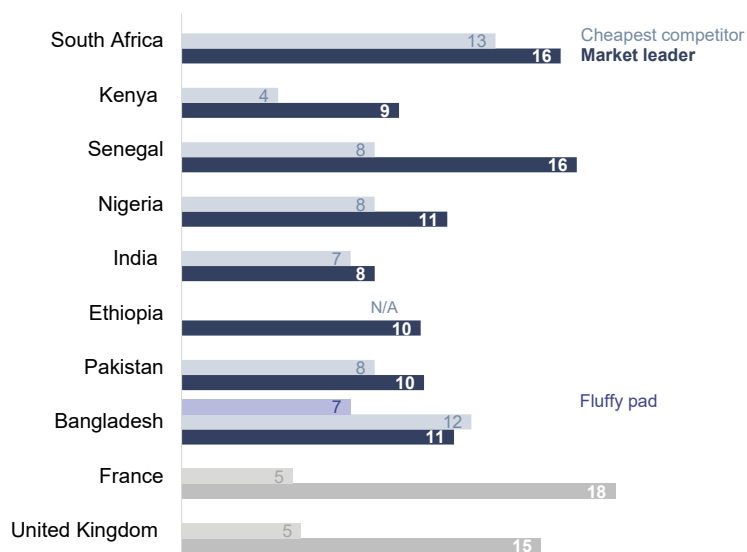
In the meantime, although a sub-optimal solution, companies can help menstruators verify product quality through marketing activities. For example, [Walson Industries](#), a company producing disposable pads in India with Saral Designs’ machines under the “Max Comfort” brand, does not benefit from the reputation of multinational corporations’ brands. To overcome consumers’ reluctance to try their products, the company follows a three-step marketing process in each new village. It starts by giving free pads so consumers can experience the product quality at no cost. During the following two months, sales agents visit the village and offer packs at a discounted price, to create consumption habits. Local menstruators then usually start asking local shops for the product, where they are sold from the third month onwards.

2.2 DISPOSABLE PADS ARE BECOMING INCREASINGLY AFFORDABLE, YET MIXED USAGE WITH HOMEMADE SOLUTIONS REMAINS HIGH

2.2.1 Prices have recently decreased thanks to increased competition and the arrival of more affordable options on the market

Disposable pads have become increasingly affordable over the past 10 years, with the largest shifts occurring in lower-middle and upper-middle-income countries. Between 2013 and 2018, Kenya, for instance, experienced a 10% improvement in the affordability of disposable pads, while South Africa saw an 11% improvement⁵⁴. Market leaders currently sell products at 0.08-0.16 USD per pad across the report’s eight countries of focus. This is getting closer to what seems to be an incompressible price of five cents per pad for the cheapest products observed in France or the United Kingdom, as shown in Figure 10.

Figure 10 - Unit retail price for ultra-thin pads, in USD cents (Note: data is from February 2023, except for Nigeria (2020))



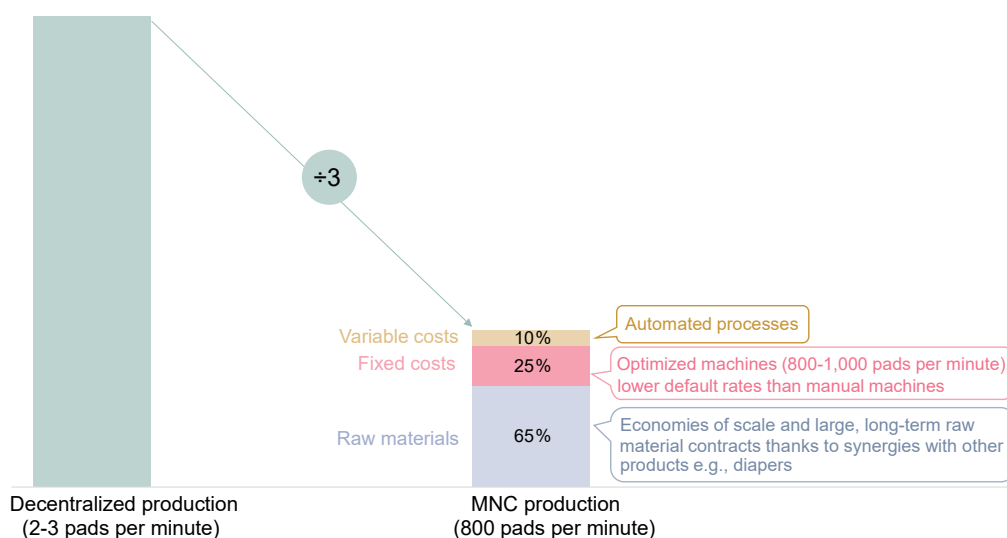
Source: All data is from Bopinc (2023), except for South-Africa (source: *Shoprite e-commerce*), Ethiopia and India (source: *Hystra field visits*). Note: Prices in Nigeria have significantly increased recently, due to high inflation (Always pads were sold at 350 Naira in 2021 versus 850 in 2023). Therefore, we used 2021 prices to give a better picture of what prices were like at the time of penetration studies.

53 Nigerian National Agency for Food and Drug Administration and Control (2021), “Food Fortifications Regulations, 2021”.

54 Ross H., and Bill & Melinda Gates Foundation (2020), “An Economic Assessment of Menstrual Hygiene Product Tax Cuts”.

This price reduction partly comes from multinational corporations' investment in this product category and the extensive optimization of their centralized production processes. Over the past 20 years, multinational corporations (MNCs) have indeed led the development of the MHH products market, becoming category leaders in all the countries studied that do not restrict or tax imports⁵⁵: Across those, the total market share of MNCs ranges between 61% (Pakistan and Nigeria) and 85% (India). These MNCs have been able to build these markets thanks to their extensive marketing and logistical capabilities, and the optimization of their production process. By centralizing production, they managed to reduce both fixed and variable costs, as detailed in Figure 11. As a comparison, a pad manufactured through a decentralized machine with a production capacity of two to three pads per minute costs three times more to produce than a pad produced with an 800 pads per minute machine⁵⁶, such as those used by MNCs.

Figure 11 - Analysis of a MNC's sanitary pads production costs in India (percentage of manufactured costs) versus a decentralized production setup



Source: Hystra analysis based on expert interviews and case studies data.

Removal of goods and services tax (GST) and value-added tax (VAT) on MHH products has also played a role. This is not sufficient in itself to lower prices, but, rather, needs to be combined with a competitive market. Six out of the eight countries of focus have removed those taxes, at least on locally produced menstrual products, including India and Kenya which had some of the lowest prices seen. Yet, research supported by the foundation⁵⁷ has shown that changes in the tax scheme must be combined with competitive dynamics on the market and local (centralized) production; otherwise, the theoretical price reduction does not get passed on to consumers and instead translates into increased margins for manufacturers and their distributors.

The good news is that competition is also intensifying in these countries, helping reduce prices. In Kenya, for instance, the market has been growing by 14% each year since 2015 (and will continue to do so over the next three years, at least)⁵⁸. This prompted Sunda International, a Chinese trade company operating in several African countries, to launch SoftCare in 2018, a disposable pad brand supported by aspirational marketing campaigns. The company is already the third largest player in the menstrual product market, with a 12% market share as of 2021⁵⁹ – and interviews with Kenyan wholesalers indicate that they might have gained further market share in 2022. Likewise, Niine, a new Indian brand of quality disposable pads sold at similar price points to MNCs' brands, was only established in 2018 by the Shudh Plus group (which sells paan, a type of tobacco) but is already challenging the market leaders by leveraging its parent company's existing network of 480,000 retailers. In Bangladesh, Joya, a brand launched by SMC Enterprise Ltd, ranks second in market share and has been prompting price reduction thanks to several product innovations, forcing competitors to align on prices to keep their market share. This decrease in retail price has allowed the relative price of a one-month supply of menstrual products (i.e., the percentage of gross domestic product per capita required to purchase 15 units of that product) to drop to 0.46% in low- and middle-income countries⁶⁰, in 2018. It is getting closer to what is observed in high-income countries (0.15%).

⁵⁵ Except for Bangladesh and Ethiopia, both of which have restrictive regulation for foreign brands and whose market share of MNCs is therefore much lower at 9% and 8%, respectively.

⁵⁶ Hystra analysis based on expert interviews and case studies data.

⁵⁷ Ross H., and Bill & Melinda Gates Foundation (2020), "An Economic Assessment of Menstrual Hygiene Product Tax Cuts".

⁵⁸ Euromonitor (2022), "Sanitary Protection in Kenya".

⁵⁹ *ibid*

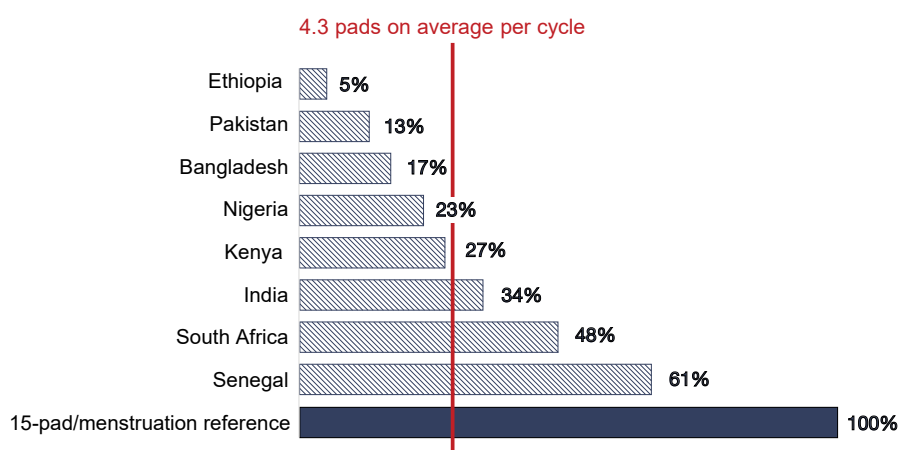
⁶⁰ Ross H., and Bill & Melinda Gates Foundation (2020), "An Economic Assessment of Menstrual Hygiene Product Tax Cuts".

2.2.2 Yet, menstruators using disposable pads use only 4.3 pads per menstruation on average (versus the 15 usually required), likely relying on homemade solutions for at least half of their menstruation

Even if prices of disposable pads have decreased in the eight countries of focus, a large share of menstruators still sometimes de-prioritize purchasing pads, either due to personal preferences or because they view them as a recurring expense with free alternatives. Disposable pads are indeed recurring expenses by nature, that compete with other essential budget items: Taking Kenya as an example, 15 Always pads (i.e., the average amount required for one menstruation⁶¹) cost 1.4 USD, which is equivalent to 3.5 loaves of white bread or 1.4 liters of petrol. Yet, while finding free alternatives to food and transportation is difficult, cloths can replace pads – as they have for decades. Low-income menstruators living on a tight budget thus carefully consider this expense and mix usage with homemade solutions: “*I struggle to pay my own bills and buy my own products. Sometimes I don’t have the money at all so I fold a dark panty and use it like a pad.*” (Kenya). Furthermore, as seen in section one, some menstruators prefer using homemade solutions at least part of the time (e.g., at home, at night, etc.).

As a result, low-income menstruators use fewer pads than they would in theory need to fully cover their menstruation. Among menstruators using commercial solutions in the eight countries analyzed for this research, the average number of sanitary pads used per menstruation is just 4.3, which is significantly less than the required number, as shown in Figure 12⁶².

Figure 12 – Average number of sanitary pads used per menstruation among menstruators using commercial solutions as a percentage of the 15-pad standard



Source: The average number of disposable pads per menstruation in each country was calculated by (a) dividing the 2021 market value data (from Euromonitor, 2022) by the number of menstruators using commercial solutions (using penetration rates from LEAP, 2021); then (b) dividing this annual budget per menstruator by the price of the market leader (as observed in 2022), to obtain the number of pads per menstruation (considering that menstruators have 12 menstruations per year). The total average is weighted depending on the population size of menstruators in each country.

2.2.3 There are small but existing opportunities to simplify products and lower costs further, adapted to low-income menstruators’ needs and preferences

There are opportunities to simplify the design of pads to further lower costs, while still ensuring they meet low-income menstruators’ needs. Joya, for example, started procuring pads from an external supplier but then transitioned to producing them internally to improve their design. By adapting their machinery and optimizing the production process, they managed to reduce the thickness of their packaging material by 30% and the quantity of several raw materials by 15-25%. Thanks to these innovations, the company saves 25% overall on its raw material costs without impacting product quality.

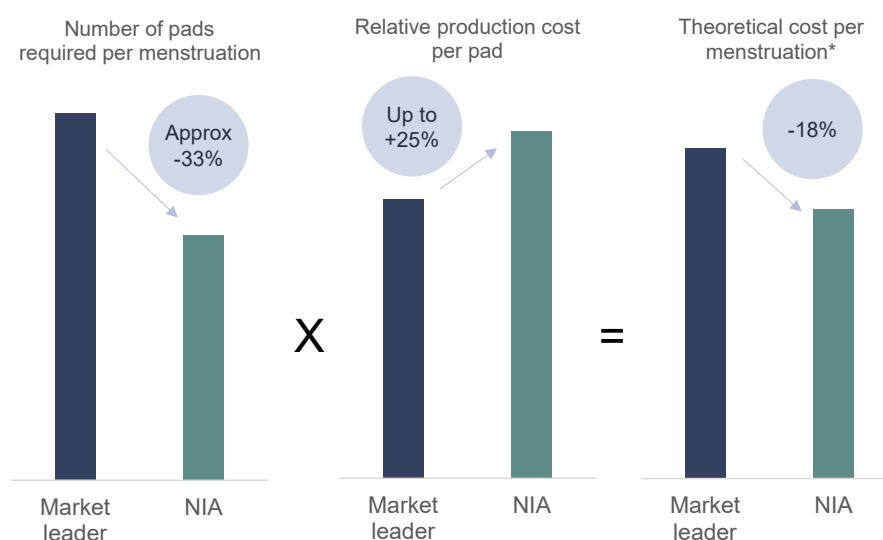
61 This is considering a menstruation lasts three to seven days and a menstruator uses on average three pads per day, i.e., 15 pads are required, on average, per menstruation. This is in line with UNICEF’s estimate that 12 to 22 disposable pads are needed per menstruation. From UNICEF (2019), “*Guide to Menstrual Hygiene Materials*”.

62 Hystra analysis based on data from: Kenya National Bureau of Statistics and ICF International (2014), “*Demographic and Health Survey*”; LEAP (2021), “*Menstrual Hygiene Landscape for Low- and Middle-Income Countries*” for Bangladesh, India, Kenya, Pakistan, South-Africa, Senegal, Nigeria; and Euromonitor International (2022), “*Sanitary Protection*” reports in the eight countries of focus.

Alternatively, increasing the absorbency of pads to lower the number needed per menstruation, and advertising this benefit, could reduce menstruators' overall spend by 15 to 20%. Most disposable pads on the market actually absorb more than what menstruators need: 88% of menstruators bleed a total of 80ml of menstrual fluid over their entire menstruation⁶³, and pads from market leaders absorb up to a third of this total fluid in just one pad⁶⁴. As explained by Paul Dove, a R&D expert in menstrual pads with more than 20 years' experience in the industry: "The majority of pads are designed with an over-capacity to allow for the large variation in menstrual cycles and human anatomy, to ensure that once the blood is within the pad, it stays there".

With this objective in mind, NIA, a disposable pads brand in Kenya, designed a pad with an all-day duration that can absorb 25-91% more menstrual fluid than its competitors⁶⁵. This has two key advantages: it enables a higher coverage of menstrual needs compared to other pads on the market – for the same or lower budget – and it removes the need to change the pad during the day, which is particularly useful when toilets or disposal solutions are seldom available. The company selected good-quality absorbents and added longer wings and stronger glue to ensure the pads stay in place and absorb well all day. It also selected a high-quality top sheet to ensure softness and avoid rashes, even after long hours of use⁶⁶. This innovation does not raise safety issues, since, as explained by Paul Dove: "It is usual to suggest that a pad is replaced every six to eight hours (or shorter) and this is stated in order to facilitate personal hygiene and avoid potential irritation from the plastic top cover, rather than for any safety reasons". Since it launched these long-lasting pads, the company has collected positive feedback from consumers (e.g., "I like NIA because the quality is better than other pads on the market.") and has lowered the overall costs of managing one menstruation by about 18%, as shown in Figure 13.

Figure 13 - Comparison of cost of using NIA and market leader pads, per menstruation (*assuming equivalent margins for both products)



Source: Interview with NIA (2023); analysis by Paul Dove from PA Dove Solutions Ltd. (2023).

Although yet to be scaled, leveraging waste for the absorbent fluff could significantly lower costs, potentially reducing end-prices by 10-20%. Wood pulp, the main absorbent used for disposable pads, is mostly produced in North America and subject to strong global price variations. Aakar Innovations, a company manufacturing and selling biodegradable pads in India, has developed a technology to use other plant-based raw materials

63 Menstrual Matters (2020), "Menstrual blood loss...what's normal?".

64 Treetampinich C., et al (2007), "Blood Absorption Capacity of Various Sanitary Pads Available in Thailand".

65 Interview with NIA (2022).

66 Based on Hystra interviews with industry experts in 2023, non-woven materials made from thermoplastics can make affordable top layers while also proving more comfortable and causing fewer rashes.

that are widely available in South-East Asia and Africa: Banana stems, bagasse, jute, and water hyacinths. These materials share several advantages: They are waste from existing plantations (e.g., banana stems and bagasse) or can be sourced for free (e.g., water hyacinths), are available in large quantities without large competing usage (e.g., sugar cane, from which bagasse is made, is the most produced crop globally, in volume⁶⁷), and are concentrated geographically (e.g., large banana or sugarcane plantations). They would bring down the cost of pulp to around half that of current alternatives, also saving on transportation, creating an overall saving 30-50% on these raw materials costs. In practice, the scalability of this innovation is yet to be proven, with a question mark on suitability for large-scale production – which requires standardized raw materials that can only be procured from large-scale, concentrated farmers in a region. Another company interviewed found a different way to reduce raw material costs: “Out of specification” wood pulp, rejected by the industry for not fully complying with standards (e.g., when it is a few millimeters too thick), still has top quality performance. The company found it could get this waste for free, or at a marginal cost, only paying for transportation and, thus, saving 30-50% on raw materials.

2.3 DISPOSABLE PADS HAVE A STRONG AND GROWING PENETRATION, BUT WITH WIDE DIFFERENCES BETWEEN URBAN AND RURAL AREAS

2.3.1 The penetration of disposable pads exceeds 50% in many countries of the Global South and is likely to continue increasing at pace

Over half of menstruators (54%) in the eight countries of focus for this research already use disposable pads, with 43-93% of those (except for Bangladesh) doing so at least part of the time. These penetration rates are driven by the younger generation (usually menstruators below 25 years old), who are more familiar with disposable pads than are older generations, who rely more heavily on homemade solutions. For instance, while 58% of total menstruators use disposable pads in India, at least part of the time, this number rises to 78% for menstruators aged 15-24⁶⁸.

This favorable demographic trend explains why the market is expected to grow at a double-digit rate. The disposable pad market in the eight countries of focus has been growing at an 11.5% CAGR since 2016. It is projected to grow even faster in the coming years, with a projected 14.8% CAGR between 2022 and 2026⁶⁹; with markets of the Global South driving most of the sector’s global growth, which is projected at only 4% CAGR overall⁷⁰.

2.3.2 Yet, access is still challenging in remote areas

Disposable pads are still difficult to access in rural areas, especially in countries with low penetration. This is, for instance, the case in Pakistan. As shared by Shandana Khan, CEO of RSPN⁷¹, the largest development network in Pakistan that supports 54 million people in raising themselves out of poverty: “In most rural areas, women don’t have proper knowledge about menstrual hygiene management. Sanitary pads are hardly available, resulting in women using unhygienic material”. The depth of inequalities depends on the countries, but as can be expected, overall evidence suggests rural menstruators have more limited choices. The disposable pad market is often concentrated in urban areas, where the population usually has a higher income, is more familiar with modern products, and consumer target groups are larger. For example, in Ethiopia, major cities account for 90% of the commercial sanitary pads market⁷². In Bangladesh, 48% of pad distribution happens through supermarkets and hypermarkets that are not present in rural areas⁷³.

67 Wunsch N., (2021), “Production volume of the most produced food commodities worldwide in 2021, by product”.

68 Government of India (2022), “National Family Health Survey 2019-21”.

69 Euromonitor International (2022), “Sanitary Protection” reports in the eight countries of focus.

70 Global Market Insights (2022), “Menstrual Hygiene Management Market”.

71 RSPN has an outreach of over 54 million rural Pakistanis. It consists of nine member Rural Support Programmes (RSPs), which have been operating since 1982.

72 PSI (2018), “Expanding Access to Menstrual Hygiene Products for Adolescent Girls and Young Women in Ethiopia”.

73 Williams and Marshall Strategy (2022), “Bangladesh: Feminine Sanitary Products Market”.

Another factor adding to the access burden is price: In the absence of a maximum retail price, disposable pads are often more expensive in rural areas, reflecting higher distribution costs. Rural areas are always harder and more expensive to reach than urban ones, and transportation costs are, thus, higher in rural areas for all products, including MHH products. For example, delivering pads by truck from NIA's warehouse in Nairobi to other Kenyan regions costs up to four times the delivery price within Nairobi, making for a 300% premium on local transportation costs. In the absence of a maximum retail price, these transportation premiums directly impact pad prices, which can vary greatly for the same brand, as observed in Uganda, where a pack of Always pads can typically be 15-20% more expensive in rural areas than in Kampala, the capital city. Adding to this burden of a higher price is the fact that rural menstruators have, on average, even lower income and purchasing power than their urban peers⁷⁴.

2.3.3 Piggybacking on existing distribution networks can help facilitate access to affordable MHH products

While there is no easy way to lower rural distribution costs, leveraging existing distribution networks can help pool these costs and limit the expense passed on to consumers. Creating efficiencies and economies of scale is essential in distribution but can be challenging for a single type of product. A traditional solution is to piggyback on existing, far-reaching channels. Brands attached to a group of companies can leverage their parent company's internal capacities. Joya, for instance, builds on the existing sales infrastructure of SMC Enterprise Ltd, which gathers more than 30 brands in food, hygiene, and health, and already distributes products through 550,000 retail stores, 110,000 pharmacies, and 12,000 wholesalers. This infrastructure helped the brand gain a 31% market share in less than 10 years, with most sales occurring in rural areas.

There is an opportunity for organizations with large distribution networks and deep local anchorage to use these assets to increase access to affordable disposable pads. If large enough, their market size and existing operations would allow them to achieve economies of scale when producing or procuring pads. Their networks can help limit distribution costs attributed to pads, while reaching even remote (rural) areas. RSPN is an example of an organization that has already run several pilots to develop distribution channels in rural areas, to help the 57% of Pakistani menstruators who, as of 2023, are not using any commercial products,⁷⁵ to access adequate products.

For single-product companies that cannot develop such effective networks on their own, leveraging multi-product distributors (including emerging specialized online platforms) can be a way to achieve the same efficiency. NIA, for example, sells its pads on Kasha, an e-commerce website selling feminine health, hygiene, and beauty products in Kenya and Rwanda. Since 2019, Kasha has delivered more than one million products to 130,000 consumers (63% of them being low-income).

When available, companies can also piggyback on less formal women channels, such as self-help groups (SHGs) in India. Walson Industries, which operates in rural areas, uses its local anchorage to sell pads through SHGs, i.e., groups of 10-25 members that gather periodically to save money and offer credit to their members (in 2023, over 89 million women are part of 8.4 million SHG across India⁷⁶). Walson Industries sells to one menstruator per SHG who is then in charge of selling packs to other members, earning a 30% margin. This channel allows the company to access a local distribution network without investing in developing it, and, as of 2023, represents 50% of the company's sales.

Conversely, creating new sales force networks specifically for MHH products is not cost-effective for the company nor attractive to sales agents, as experienced by NIA in Kenya. The company tried to develop a network of women sales agents but quickly realized that it was not an effective approach: Among the 500 women trained, only 74 became sellers, each having a maximum of 50 clients. These low sales and high salesforce turnover did not enable the company to recover the costs incurred for the training and management of the salesforce. In addition, selling only disposable pads was not enough for sales agents to earn a living: As a comparison, they would have needed a catchment area of at least 3,300 menstruators (i.e., 35 villages) to earn 127 USD per month⁷⁷, the monthly minimum wage in Kenya⁷⁸. The company believes that a better method of distribution would be to have NGOs add the pads to their baskets of health products. This is consistent with previous Hystra findings on women sales forces selling health-related products⁷⁹.

74 Thakur A., (2023), "Women paid less than men for same work in towns and villages".

75 LEAP (2021), "Menstrual Hygiene Landscape for Pakistan".

76 Government of India (2023), "SHGs Profile Entry Status".

77 This is calculated with the following hypotheses: each seller earns a 30% commission; a village gathers 100 households of four persons, including one menstruator; the brand has a 100% penetration rate with 100% market share.

78 ILO (2021), "Minimum wages".

79 See Hystra (2021), "Women sales force: an impactful channel for health-related products?"

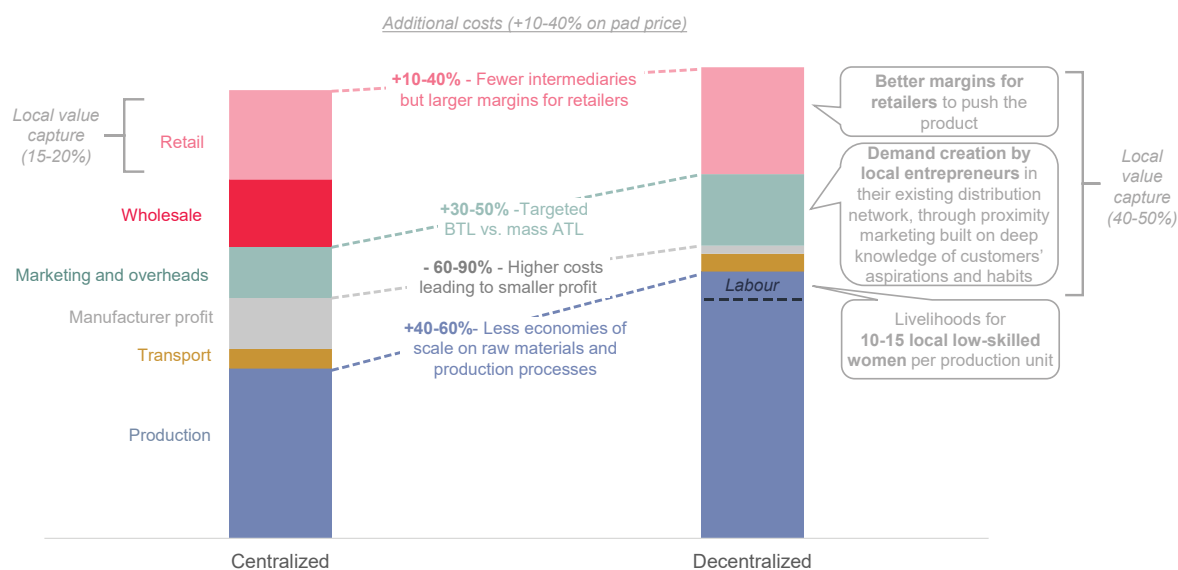
2.3.4 Despite its theoretical appeal, decentralized production is not a sustainable way to solve the access challenge

While decentralized production of disposable pads can create local value and accelerate product access in remote areas, it does so at higher costs and, hence, price (and often at lower quality) than centralized production. Improving access to products is usually the key argument for decentralized production of disposable pads. Such models are also supposed to reduce pads' costs, and, hence, price, compared to buying the finished products from a wholesaler. However, studying the economics of several decentralized models did not confirm these assumptions. The decentralized production of sanitary pads is never as cost-effective as centralized production, as shown by Figure 14. Raw materials do not benefit from the same economies of scale (being 30-40% more expensive per pad for a local producer versus a centralized one⁸⁰), and labor costs are higher per pad for the smaller machines used in decentralized manufacturing. Entrepreneurs also expect decentralization to reduce transport costs from large factories to rural areas, by transporting raw materials instead of finished goods (expected to be more compact than voluminous pads). Yet, transportation costs end up higher or similar, since transporting ultra-thin, tri-folded pads is often cheaper than transporting the corresponding raw materials. For example, a 20 feet container can stock 1.3 times more ultra-thin pads than their equivalent in raw materials⁸¹.

Furthermore, although an argument often heard in support of these models is that they create jobs for local women, decentralized production units actually create very few jobs compared to the number of menstruators they serve. These projects often look to employ local women to run their manual or semi-automatic machines, with the secondary goal of creating employment for rural women. Yet, these machines require at best a few dozen workers, while at the same time serving hundreds of thousands of consumers. What is in the balance is thus a few dozen local people getting employment, versus hundreds of thousands of menstruators getting access to cheaper products.

The key question to ask when deciding whether to opt for decentralized production would rather be: Can the total costs of locally produced pads be lower than the wholesale price of centrally produced pads? If so, producing and selling locally is attractive: Local entrepreneurs can take a lower margin than centralized pad manufacturers on the manufacturing part, and, instead, capture some of the distribution margin. This allows more value to stay at the local level, as detailed in Figure 14. If not, local production is not effective at any level, and a procurement model for centrally-manufactured pads is the most attractive option for both rural entrepreneurs and donors willing to improve access to disposable pads.

Figure 14 - Pad price breakdown depending on production model used (share of end-user pad price)



Source: Hystra calculation based on expert interviews and field visits with companies (2023).

⁸⁰ Based on analysis by Paul Dove from PA Dove Solutions Ltd. (2023), and an interview with Walson Industries (2023).

⁸¹ Based on Hystra interviews with companies.

2.4 ALTHOUGH DISPOSABLE PADS GENERATE RELATIVELY LIMITED WASTE, THEY RAISE WATER, SANITATION, AND HYGIENE (WASH) FACILITIES MANAGEMENT AND ENVIRONMENTAL ISSUES

2.4.1 Disposable pads represent less than 0.5% of household solid waste volumes

Menstrual health products are often called out for the waste they generate, but only represent a marginal share of total household waste. In India, for instance, disposable menstrual products generate the impressive amount of 113,000 tons of waste each year⁸²; yet, this only accounts for 0.2% of total solid waste in the country⁸³. This proportion does not seem to increase in wealthier or more mature countries: Menstrual products represent only 0.1% of waste in the United Kingdom⁸⁴.

2.4.2 Environmental issues are not a priority for low-income menstruators, who are not ready to pay more for environmentally friendly products

Low-income menstruators in the Global South do not include environmental impact as a priority criterion in their choice of menstrual solution. In the individual interviews conducted by Bopinc with more than 60 menstruators, only two spontaneously mentioned the impact on the environment when discussing menstrual hygiene products.

Biodegradability could be an answer for environmental challenges but adds a 35-50% premium to pads' prices, that low-income consumers are not ready to pay for. Biodegradable pads are starting to gain momentum, especially across wealthier segments, with leading brands launching new biodegradable product lines⁸⁵. Yet, biodegradability usually adds a cost that low-income menstruators are not ready to pay for: *"I thought all pads are biodegradable... but then if it means the biodegradable ones would be more expensive, I would buy the less expensive ones."* (India). Even when they see value in this feature, menstruators consider it a secondary priority, putting quality and comfort first: *"I saw biodegradable pads for the first time during this interview. I liked the fact that it's environmentally friendly, but it is too thin and might get leaked easily."* (Bangladesh).

2.4.3 Yet, disposable pads generate (plastic) waste and raise WASH facilities management issues

Even if marginal, disposable pads do generate waste and their disposal can cause health issues. Menstruators dispose of pads in different ways that can affect the environment beyond the waste directly generated. When disposed of in the open, pads add to the hazards of open landfills, like the release of biogas or soil and water pollution. Other methods include burning pads (which 33% of menstruators in India do, for instance⁸⁶), which creates soil pollution that degrades soil fertility – eventually impacting farming. Burning pads in the open (which 28% of menstruators in India do⁸⁷) releases CO₂, as well as dioxins, which are highly toxic and cause health issues.

Disposable pads can also negatively impact WASH facilities. When disposed of in latrines or pit latrines, they can clog sewer pipes or pits, leading to repair costs for the community. In the UK, for instance, menstrual hygiene products are responsible for 14% of the blocked pipes every year, costing 50 million GBP to repair, annually⁸⁸. Poor disposal practices can even result in septic tank explosions; one such incident in India, in 2014, caused several people to suffer burns⁸⁹.

82 BDown to Earth (2021), *"India's landfills add 113k tonnes of menstrual waste each year: Report"*.

83 Central Pollution Control Board Delhi (2021), *"Annual Report 2020-21 on Implementation of Solid Waste Management Rules, 2016"*.

84 Blair L., Bajón-Fernández Y., Villa R., (2022), *"An exploratory study of the impact and potential of menstrual hygiene management waste in the UK"*.

85 For example, Kotex (a disposable pad brand owned by Kimberly-Clark Worldwide) now offers flushable disposable pads, also presented as biodegrading in 30 days. For more information see Kotex website.

86 Mahesh P., and Mehotra A., (2021), *"Menstrual products and their disposal"*.

87 *ibid*

88 DirectLine Group (2022), *"Burst pipes cause almost £50 million of damage a year"*.

89 Sarkar A., (2014), *"Sanitary pads clogging sewer pipes caused Chembur toilet blast"*.

2.4.4 Reducing the environmental impact of pads should be considered by third parties ready to bear the corresponding costs - without adding costs for consumers

A first step could be to improve the sourcing and fabrication of products' raw materials, to reduce their carbon footprint and help make more pads compostable and biodegradable⁹⁰. Using local raw materials instead of imported ones (like Aakar Innovations' work to replace wood-based cellulose with locally available materials) reduces transport needs, helping to lower costs and the environmental impact. Transitioning from plastics-based materials (which, in 2023, compose 90% of most commercial pads⁹¹) to biodegradable raw materials would also contribute to limiting the environmental impact of pads. These materials are, however, costly: Replacing the pad's top layer with compostable non-woven materials is over five times as expensive and using a natural cellulose-based SAP adds 60% of costs, compared to synthetic SAP⁹². This would require further innovations to allow pads' prices to remain competitive.

Another necessary step at the sector level is to create a supportive legal environment for these innovations, to ensure consumers can make informed choices. For example, Aakar Innovations supported the Indian Bureau of Standards in developing quality standards for disposable pads - including on compostability and biodegradability, a claim often made by brands without any certifications and guarantees. Civil society organizations are also central to creating a transparent sector. For example, in its report "Wrapped In Secrecy: Toxic Chemicals In Menstrual Products"⁹³, Toxics Link disclosed the prevalence of toxic chemicals in sanitary pads and their negative effects on menstruators' health. Encouraging these initiatives can only accelerate the sector's transition to using improved and more sustainable materials.

Finally, since not all menstruators are willing or able to pay for these additional costs, menstrual health companies can only go so far in investing in this topic – donors and other third-party payers have a key role to play in supporting a transition to more sustainable pads. For example, UNICEF has started to officially include environmental aspects in its procedure for menstrual hygiene product procurement, which aims "for the best value for money considering whole lifecycle costs, reducing environmental impact and promoting local markets and human rights"⁹⁴. Such organizations can be interested in supporting environmentally friendly efforts, such as R&D to lower costs of biodegradable raw materials. Another example of support for these types of solutions is companies procuring pads for their menstruating employees: Aakar Innovations increasingly works with the Indian offices of tech companies interested in providing their employees with quality products, as part of their efforts to improve their work environment and increase retention.

Beyond these incremental improvements, another way to limit the environmental impact of menstrual products is to increase the penetration of reusable menstrual products. Indeed, a menstruator switching from disposable pads to reusable pads will halve their carbon impact over a year - and reduce it by 15 times by switching to a menstrual cup⁹⁵.

In theory, increasing access to reusable menstrual products could solve most issues with disposable pads. Reusable products address access challenges since they usually last for between two and 10 years (depending on the product) are more affordable options (with lower costs per use), and generate less waste than single-use options. The next section will explore the current state of this industry in the Global South.

90 Biodegradable materials eventually break down into the soil but can take an undetermined time to do so, while compostable materials can decompose into natural elements within a specific time frame.

91 Mahesh P. B., and Amit D., (2021), "Wrapped In Secrecy: Toxic Chemicals In Menstrual Products".

92 Blair L., Bajón-Fernández Y., Villa R., (2022), "An exploratory study of the impact and potential of menstrual hygiene management waste in the UK".

93 Mahesh P. B., and Amit D., (2021), "Wrapped In Secrecy: Toxic Chemicals In Menstrual Products".

94 UNICEF (2019), "Guide to Menstrual Hygiene Materials".

95 Zero Waste Scotland (2019), "The carbon impacts of menstrual products". Calculation was done following the Life Cycle Analysis method, that compares menstrual products based on the average requirements of a menstruator in the UK over a year. Main drivers for the results were the lifetime of each product, the number of products required per menstruation, their manufacturing (including materials and energy used), and management during the menstruation (washing reusable pads and sterilizing menstrual cups once a month).



A training session on menstrual cups conducted by Ruby Cup

Credits: Ruby Cup



3. MENSTRUAL CUPS: THE NEGLECTED MONEY-SAVING DEVICES WITH HUGE POTENTIAL

3.1 THE MENSTRUAL CUP IS AN ASPIRATIONAL PRODUCT VALUED FOR ITS CONVENIENCE

3.1.1 Cups are, in theory, a great menstrual hygiene product for the 80% of menstruators who could use one⁹⁶

Menstrual cups are, in theory, a great solution for menstruators in the Global South, due to their convenience and favorable price point. Cups are the most cost-effective solution over time: In India, over the product's lifespan, a menstrual cup will cost a menstruator only 0.4 USD per year, compared to 2.1 USD for reusable pads and 15.4 USD for disposable pads⁹⁷. Cups also solve many access and comfort issues. One menstrual cup covers the entire menstruation and lasts up to 10 years. The cup is also designed to hold menstrual fluid for eight to 10 hours, meaning it only needs changing twice per day⁹⁸, which frees menstruators from having to search for a bathroom and isolate themselves to change their menstrual products several times a day. Finally, as it is inserted and usually made of 100% medical-grade silicon (except for poorer quality cups, sometimes made at least partially from plastics), the cup also avoids the discomfort of wearing an additional layer and protects menstruators from excessive heat, as well as potential rashes. It is also suitable for menstruators who do not wear underwear, as is often the case in e.g., Bangladesh.

In addition, research confirms that menstrual cup use is possible even in challenging WASH settings. Hygiene recommendations are to properly wash one's hands and the cup with clean water and soap during menstruation, and to boil the cup for a few minutes after each menstruation is complete. However, research shows that washing the cup during use over a day is not even necessary: Emptying it when needed and washing it at the end of the day is enough to avoid infections⁹⁹. It also shows that pouring boiled water on the cup is enough to sterilize it¹⁰⁰, removing the need to boil it in a saucepan for a longer time, a step that is often considered challenging by low-income menstruators. Contrary to expectations, existing research seems to show that the cup does not present increased infection risks (e.g., reproductive tract and systemic infections) compared to other menstrual products¹⁰¹. In addition, the cup requires less water than reusable pads for proper cleaning, a useful characteristic for ensuring the hygienic use of menstrual products in challenging WASH settings. Finally, working on the cup's design can help increase hygiene safety, as shown by the bfree cup, which includes a specific lubricant that prevents bacterial attachment and stains on the cup's surface¹⁰², helping lower hygiene requirements.

However, contrary to pads, not all menstruators can use menstrual cups, due to physiological reasons or contraception. As of 2023, more than 200 million people in 30 countries in Africa, the Middle East, and Asia, have experienced female genital mutilation¹⁰³ (13% of the total number of menstruators in the Global South¹⁰⁴). For many of whom, it will be physically impossible (and/or painful) to use an inserted menstrual product¹⁰⁵.

96 This is a conservative estimate that assumes menstruators with female genital mutilations (200 million today) and those with IUDs (8% of menstruators in the eight countries of focus) all have menstruations and do not overlap.

97 This assumes 15 disposable pads (product used: Whisper Choice, pack of six (P&G)), four reusable pads (product used: Sirona and Fabpad, pack of four), and one menstrual cup (product used: Sirona).

98 Menstruators with heavy menstrual flows, however, usually need to empty the cup once or twice during the day.

99 From Paul Dove (PA Dove Solutions Ltd) interview with The Menstrual Cup Coalition (2023).

100 Wunsch, N., et al (2022), "In Vitro Study to Assess Effective Cleaning Techniques for Removing *Staphylococcus aureus* from Menstrual Cups".

101 van Eijk A., et al (2019), "Menstrual cup use, leakage, acceptability, safety, and availability: a systematic review and meta-analysis".

102 PATH (2021), "Menstrual cups cleaning practices".

103 WHO (2023), "Female Genital Mutilation".

104 There are 1.8 billion menstruators worldwide (UNICEF, 2023), 83% of which is in the Global South (UNCTAD, 2022), and most female genital mutilations happen in 30 countries of the Global South (WHO, 2023).

105 For example, people who have experienced type III mutilations, which consist of sewing part of the women's genital tract, and affect 20% of all women with genital mutilations, will find product insertion impossible. For more information see WHO (2023), "Female genital mutilation".

Internal birth control devices can also affect the use of menstrual cups: Menstruators using an intrauterine device (IUD) are often advised not to use cups, or to take specific precautions when doing so, because of the potential risk of dislodging the IUD¹⁰⁶. There is, however, no consensus on these potential contraindications since research has shown contradictory results. It should also be noted that less than 8% of women use IUDs in the eight countries of focus¹⁰⁷. Similarly, concerns exist around vaginal rings, since cup insertion can push or eject them, but this is easily solved by cleaning and re-inserting the ring.

3.1.2 Menstruators who have adopted the menstrual cup praise it, both in the Global South and the Global North, even in low WASH environments

Menstruators increasingly praise the menstrual cup in markets of the Global North, as do high-income menstruators in the Global South. In Europe, the cup market is the most dynamic among menstrual products, seeing increasing interest from menstruators. It is expected to grow by 5.2% CAGR between 2019 and 2027, while the market for pads and tampons will grow by only 3.9%. In the Global South, sales of menstrual cups are still limited but the product has started proving its appeal on the Indian market thanks to Sirona, a digital-native feminine hygiene brand. The company is among the cup's pioneers: It sells a menstrual cup for 259 INR (3.2 USD), one of the most affordable prices on the market. As of 2023, it is the leader in menstrual cups in India, with one million units sold since 2015, including 400,000 sold in 2022 alone. The product is rated 4.8 out of 5 on the Sirona website based on over 2,500 ratings. Sales, however, remain limited to a segment of tech-savvy menstruators (90% of the company's sales are online), usually young (between 15 and 30 years old), urban (mostly in large cities), and earning medium to high incomes: *"I am 15 and I have always had a bad experience with my menstruations before I switched to this menstrual cup. You gotta get this if you have problems like heavy flow, leaks, and rashes. My menstruations aren't uncomfy anymore. I don't even have to worry about leaks."*; *"my menstruations are pad free... It's safe and very comfortable to use. It gives long lasting protection from leakage."* (Sirona cup reviews).¹⁰⁸

In low-income settings, menstruators who have tried the cup over a few months continue to use it. For example, Ruby Cup, a menstrual cup company that has donated 145,000 cups in the Global South through NGOs using a "Buy One Give One" model, has experienced high adoption rates in its programs, thanks to a careful selection of NGO partners. Before receiving cups, NGOs need to detail who will conduct the training and how (the person needs to have used a menstrual cup themselves), the facilities available in the community (especially access to water), and their method for measuring the impact of product distribution. Ruby Cup also provides NGOs with educational content for three successive training sessions that tackle MHH management and menstrual cup use and care. Typically, 60% of menstruators adopt the product after the first session and 82% after two refresher sessions over nine months (allowing menstruators to try the cup during several menstruations¹⁰⁹). This support also ensures long-term adoption: In a program led by the NGO WoMena in conjunction with Ruby Cup in Uganda, 90% of menstruators who had received a cup in 2015 were still using it in 2019, as well as 60% of those who got one in 2012, as Figure 15 demonstrates.

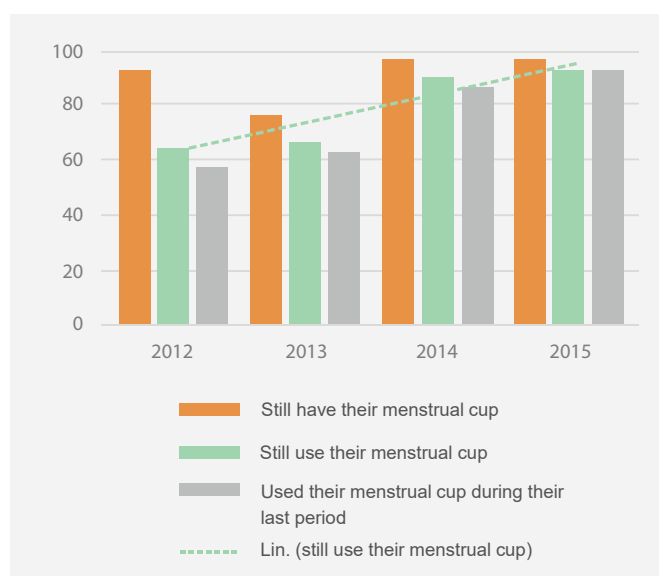
¹⁰⁶ Robinson K., (2021), "Can You Use a Menstrual Cup With an IUD?".

¹⁰⁷ LEAP (2021), "Contraception Landscape for Low- and Middle-Income Countries".

¹⁰⁸ Sirona (2023), "Menstrual cup with pouch – medium".

¹⁰⁹ Ruby Cup (2022), "2020-2021 Impact Report".

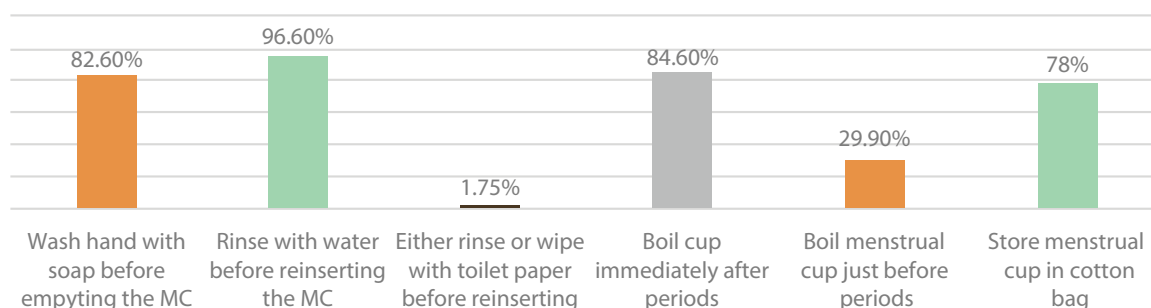
Figure 15 - Menstrual cup use (percentage of menstruators participating in the program) based on year of receipt in a program led by WoMena in Uganda in 2019 (figure from WoMena)



Source: WoMena Uganda (2019), "Menstrual Cup Interventions Follow Up Study, Uganda – Study Report".

Several menstrual cup distribution programs in refugee camps, where WASH facilities are limited, confirm that they can be used hygienically in low-WASH settings. In addition to the examples above, the NGO CARE piloted cups in a refugee camp in Uganda with 38 menstruators. Interestingly, menstruators saw the cup as a problem solver for several typical challenges of refugee settlements. Beyond the comfort it brought, they liked the cup for the savings it allowed: Many mentioned that they previously spent less on food expenses to buy disposable pads. They also valued it for the savings on soap and water (compared to washing cloth or reusable pads); with a menstrual cup only requiring one liter of water to clean, compared to 15 liters for cloth or reusable pads¹¹⁰. Similarly, in another study among schoolgirls in Nepal, those who used a menstrual cup valued it because they only needed to take a small bottle of water to wash it outside their house, when running water was not available¹¹¹. In the program led by WoMena with Ruby Cup in Uganda, the vast majority of menstruators who received the cup reported complying with the hygiene guidelines they received (as shown in Figure 16).

Figure 16 - Hygiene practices of menstruators in the cup distribution program led by WoMena, with Ruby Cup in Uganda (figure from WoMena)



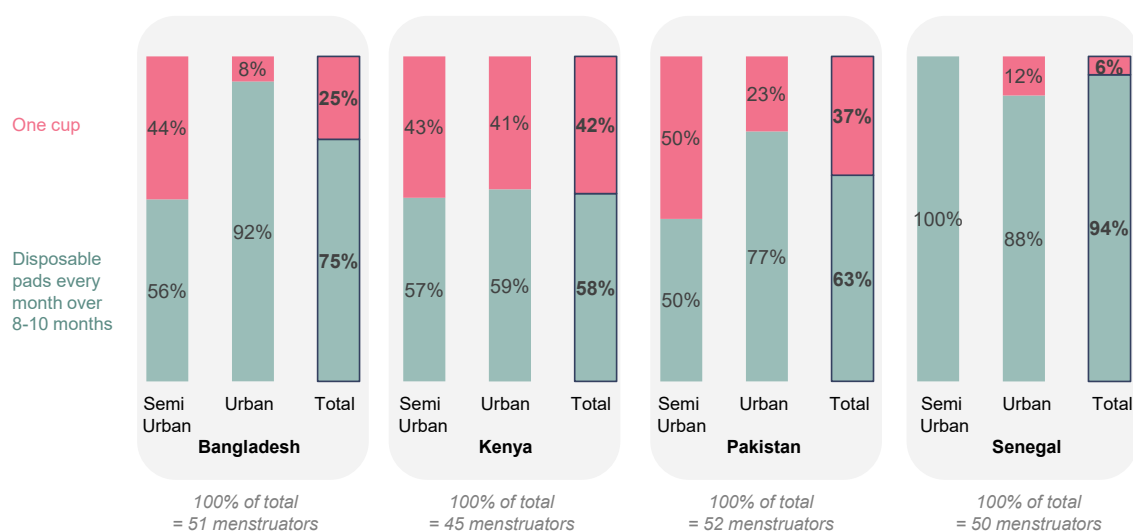
Source: Research conducted by WoMena with 117 menstruators.

110 CARE International (2018), "Ruby Cups: Girls in Imvepi Refugee Settlement Taking Control". In this study, 87% of menstruators were using the cup consistently after three months.

111 Pokhrel D., et al (2021), "Acceptability and feasibility of using vaginal menstrual cups among schoolgirls in rural Nepal: a qualitative pilot study". 121 Ruby Cup (2022), "2020-2021 Impact Report"

Finally, even if the market is still small in the Global South, consumer research shows that menstruators are interested in menstrual cups, even in low-income settings. Receiving explanations on how to use the product and its benefits usually changes menstruators' initial perception and sparks interest, especially for its savings potential and long-lasting nature: "I found it very financially effective, and it is reusable. I will not have to bury pads. There would not be tension about where to keep it and how to buy the product every month." (Bangladesh); "I would want to use it because it is budget friendly. I am just concerned about how to take it out, but once I learn, I am sure it will be ok." (Bangladesh). As shown in Figure 17, Kenya, semi-urban Pakistan, and semi-urban Bangladesh were the areas where the product sparked most significant interest.

Figure 17 - Preference for cups or disposable pads in Bangladesh, Kenya, Pakistan, and Senegal (for a similar price point)



Source: Bopinc (2023) unpublished research. The question asked was: "What do you prefer for the same price?". Research conducted with 198 urban and semi-urban menstruators: 51 in Bangladesh, 45 in Kenya, 52 in Pakistan, and 50 in Senegal. Note that all choices do not equal 100 due to some menstruators ranking some products ex aequo.

3.2 HOWEVER, THERE IS RESISTANCE TO TRYING THE CUP DUE TO CONCERNS AROUND INSERTION, HYGIENE, AND HIGH UPFRONT COSTS, WHICH COMMERCIAL APPROACHES ARE UNABLE TO OVERCOME FOR LOW-INCOME MENSTRUATORS

3.2.1 Menstruators are initially reluctant to try and to adopt the menstrual cup due to taboos around insertion, questions around hygienic use, and complex usage in the first months

The cup is an innovative device that menstruators are usually not familiar with. Inserted menstrual products are quite rare in the Global South. The tampon market is very small, at 2-13% of the commercial menstrual hygiene products market in the eight countries of focus¹¹². The menstrual cup is even less known, with only a few menstruators in the consumer research knowing about it and most being completely new to the product: *"I have not seen or heard of the cup before. It looks like a bell. Is it painful?"* (Pakistan); *"What is this? Is this for menstruation? There must be something missing."* (Senegal); *"It looks like a tumbler, but I have never seen it."* (Kenya).

As a result, the menstrual cup prompts many initial questions and concerns, notably regarding its insertion. Cultural taboos and practices make cups harder to use than pads, especially for non-married menstruators in societies where virginity is considered a prerequisite for marriage; the worry is that inserting the cup might break the hymen. Menstruators often first expressed skepticism about the product and voiced concerns around inserted products: *"I heard that if a woman inserts a product in her vagina, it may make her infertile."* (Kenya); *"I have heard of the menstrual cup, that it has to be inserted. My sister showed me a video explaining it. We laughed about it and said this would go completely inside. It looks very intimidating. You could also feel it inside, so it must be very uncomfortable."* (Pakistan).

Menstruators also often express concerns around hygiene. Some have concerns about the need to properly clean the cup to avoid infections, since they know inserted products are riskier than pads: *"I am wondering if it causes infection. I am also wondering how long I should have it in."* (Kenya); *"I think cleaning would not be easy, especially if I am at a place where there is no water."* (Kenya). Furthermore, some of these concerns remain after menstruators start using the product in challenging WASH settings. Menstruators in a refugee camp in Uganda were, thus, sometimes afraid they would contract an infection if they were not able to clean their hands properly before inserting and removing the cup¹¹³. In another study in India, some people who had been given a menstrual cup still preferred using disposable pads when they were not at home and were not sure they would be able to properly clean the cup¹¹⁴.

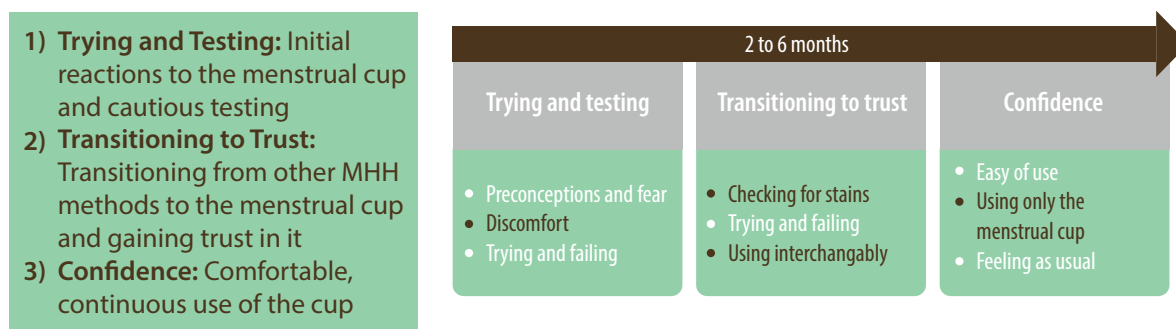
Because of these concerns and complex initial usage, menstrual cup adoption requires repeated encouragement and advice over the first months. As a device that requires a specific technique for insertion and removal, a menstrual cup is less straightforward to use than pads, which are similar to homemade solutions. Menstruators need to master this complexity to ensure the cup is both effective (to ensure e.g., no leaks or spillage when removing) and comfortable (e.g., no discomfort when sitting or walking). This learning curve usually requires training and encouragement over a few menstruations. In one of its cup distribution programs led with WoMena in three regions of Uganda, Ruby Cup experienced that at least 90% of menstruators reported experiencing pain when they first used the cup. However, after receiving training and with practice, five months later, 82% of them reported no physical discomfort when using it. Based on its experience, WoMena defined three stages in the adoption of the cup, which take two to six months to complete, as detailed in Figure 18.

112 Euromonitor International (2022), "Sanitary Protection".

113 CARE International (2018), "Ruby Cups: Girls in Imvepi Refugee Settlement Taking Control".

114 Patel K., et al (2023), "Is menstrual cup a sustainable and safe alternative in menstrual hygiene management? A qualitative exploratory study based on user's experience in India".

Figure 18 - Adaptation process to the menstrual cup, as defined by WoMena (figure from WoMena)



Source: WoMena Uganda (2019), "Menstrual Cup Interventions Follow Up Study, Uganda – Study Report".

3.2.2 For low-income menstruators, the cup represents a significant investment that cannot be split into multiple purchases for first trial, thus representing a high financial risk

Cups call for an upfront investment without guaranteeing that menstruators will like the product. It is impossible to try out the cup before using it, contrary to disposable or reusable pads that can be tried through smaller packs or free samples. For menstruators on a tight budget, this investment can be significant. In India, for instance, buying the most affordable quality cup available is eight times more expensive than buying a pack of six disposable pads from an international brand¹¹⁵. Furthermore, having the required cash to purchase a cup can be challenging, as many low-income menstruators live on daily wages or have an irregular income. A cup with a price as low as 3.2 USD still represents more than half the daily minimum wage in Kenya and up to five times the daily minimum wage in Bangladesh¹¹⁶.

3.2.3 While commercial approaches have overcome these challenges via online marketing for higher-income menstruators, they have so far been unable to sell these products to their low-income counterparts

In India, Sirona has shown that online tools can support (at least some) menstruators in adopting the menstrual cup. Thanks to a set of digital tactics, Sirona manages to both trigger purchases from menstruators and ensure long-term adoption. The company markets the cup as a trendy problem solver for menstruators, focusing on its convenience (e.g., duration and comfort) through regular and diversified content on social media, a tool well suited to its target group of young, urban menstruators. This helps make the product known and aspirational. Sirona also offers online educational content and opportunities for menstruators to share questions once they have bought a cup. Its cup's packaging includes a QR code to access tutorial videos on YouTube (e.g., on how to insert and remove the cup), consumer testimonials, frequently asked questions (FAQs), and a helpline, to support over the phone or through a WhatsApp bot. This digital toolbox helps the company limit marketing and consumer support expenses, as, once developed, there is no limit to the potential number of people who can access it. It has enabled Sirona to bring down prices to a very affordable 3.2 USD per cup. This price is sustainable over time, as Sirona's growing consumer base amortizes marketing costs.

Yet, commercial approaches have so far been unable to sell these products to low-income menstruators. Traditional commercial approaches using retail (the main commercial channel to reach low-income consumers) seem ill-adapted to the menstrual cup. When promoting previously unknown products, such as cups in the Global South, traditional approaches usually rely on significant marketing investments to create momentum and to offer attractive margins for retailers. A relatively low-priced and one-time sales product such as the cup can neither offer high enough margins to cover large marketing campaigns, nor to over-incentivize retailers; for whom cups would most likely cannibalize recurring (disposable pads) sales. Another challenge is to provide adoption support at acceptable costs. Philanthropic approaches use costly support programs (for example, it costs 50 USD per menstruator in the distribution and training programs of WoMena¹¹⁷), which would not make

¹¹⁵ Comparing a pack of Whisper Choice Ultra disposable pads in India with a Sirona menstrual cup.

¹¹⁶ ILO (2021), "Statistics on wages".

¹¹⁷ Kulczyk Foundation (2020), "A Bloody Problem: Menstruation Poverty, Why We Need To End It And How To Do It".

financial sense for a consumer brand. Sirona has provided support to its consumers commercially, via cost-effective online tools, but it is unsure whether this approach could work with low-income consumers, who are less connected and digitally-savvy (only 30% of people in Kenya use the internet; in Bangladesh, the figure is 25%¹¹⁸). And, indeed, despite its success, Sirona's sales to date only represent 0.5% of Indian menstruators, mainly representing medium to high earners.

3.3 THE PRIORITY SHOULD BE TO DETERMINE AND IMPLEMENT THE MOST COST-EFFECTIVE STRATEGY (COMMERCIAL OR PHILANTHROPIC) TO OFFER CUPS TO INTERESTED LOW-INCOME MENSTRUATORS

3.3.1 Testing cost-effective marketing approaches for low-income consumers is essential to identify the best outreach strategy

Reducing the cost per convinced low-income menstruator requires testing several tactics to (1) enable first trial by using mechanisms to create trust and overcome the price barrier, and (2) support adoption.

■ Mechanisms to create trust in the product

Leveraging trusted peers is a cost-effective tactic to create trust in the product and to answer menstruators' questions. For low-income people, every expense matters. Seeing a product work or getting a trusted person's feedback is often essential to trigger a purchasing decision. Yet, demonstrations or free trials are not an option for menstrual health products, especially the menstrual cup. Word of mouth via trusted peers could work, though, especially if combined with actions to gather community support. Some organizations have already had some success with this approach: Ruby Cup, for instance, involves the whole community – including men – in their outreach activities, to ensure acceptance, and usually donates cups to trusted female figures first (e.g., nurses, religious leaders' wives), who act as leaders in behavior change. Similarly, The [Shakti Menstrual Cup](#), an Indian social enterprise which has sold 5,000 cups since 2019, donates cups to community health workers. These workers test the product for themselves and then sell cups to others, while also teaching them how to use the cups properly, based on their own experience¹¹⁹. These targeted donations to influential figures limit marketing costs and preserve the commercial market, while developing a trusted reputation for the product. Another way to leverage word of mouth is to develop referrals. Looking at best practice from other sectors, [Toyola](#), a Ghanaian company selling improved cookstoves, encouraged referrals in its early days by offering early adopters a refund if they generated 10 sales within a month¹²⁰. Companies selling menstrual cups could use a similar system or offer an additional product (e.g., another femcare product) for consumers, triggering cup sales.

Using product placement is another way to normalize the cup and encourage first trial. To create trust in any product, the first step is to “normalize” it. Product placement on TV can be an effective way to showcase the product to a large audience, as done in the American TV show “The Last of Us” in 2023. In one of the scenes, a character opens a package containing items to help her survive in a post-apocalyptic world. One of the items was a menstrual cup. This scene went viral on social media and in the press, which praised the TV show's creators for presenting new ways to manage menstruation in challenging environments: “*The intention was that if you don't know what it is, you can ask someone or you can Google it.*” said Craig Mazin, the showrunner¹²¹. Companies could test this tactic or others (e.g., hiring influencers on social media to showcase the product) to normalize menstrual cups, for a low cost. This has already been done in the Global South for other types of innovative products, as shown by [BURN](#), an improved cookstoves company operating in sub-Saharan Africa. Targeting urban consumers likely to watch TV, the company ran TV ads and several product placements in popular TV shows, helping it move from selling 3-4,000 monthly units to 8-12,000 within a year (with 30% of clients buying it thanks to the TV campaign)¹²².

Another tactic to minimize risk perception could be offering a money-back guarantee. Ruby Cup does so, allowing consumers to switch to another size or get a refund if they return their cups within four months. This allows the company to build trust from the outset, at a low cost, since only 1.36% of consumers avail of the guarantee (with 0.85% getting a refund and 0.51% opting to change size).

¹¹⁸ World Bank (2021), “*Individuals using the Internet (% of population)*”.

¹¹⁹ From Hystra interview with Radhika Chabria, CEO of The Shakti Menstrual Cup (2022).

¹²⁰ Hystra (2017), “*Reaching Scale in Access to Energy*”.

¹²¹ VanArendonk K., (2023), “*Give It Up for the Last of Us Menstrual Cup*”.

¹²² Hystra (2017), “*Reaching Scale in Access to Energy*”.

■ Mechanisms to overcome price barrier

To overcome financial barriers, companies could work to lower the menstrual cup's price to below 4 USD by including it in a portfolio of products or involving third party payers. Selling cups within a larger health-related portfolio of products can indeed be a way to limit the sales and marketing cost per product (by piggybacking on existing brand efforts) and to spread overheads between more products. One of the key assets of Sirona is its catalog approach. The company sells more than 30 different feminine hygiene products, allowing it to share the company's overheads with other products and to take a lower – still sustainable – margin on the cup. Sirona has made a deliberate choice to make the menstrual cup a flagship product and to encourage its adoption, since believing it to be a real problem solver for their consumers.

Another way to lower prices could be to subsidize the cup through stakeholders interested in the direct or indirect benefits of cup usage. Potential payers could be international organizations and donors willing to improve the commercial ecosystem of menstrual health products, given their health benefits. Private actors with a vested interest in local menstruators' health could also subsidize menstrual cups in their communities, or even buy cups for free distribution. The Shakti Menstrual Cup, for instance, convinces factory owners to invest in cups for their employees. For these entrepreneurs, cups solve two key issues: They reduce absenteeism and save on the plumbing costs of unblocking drains clogged with pads. In some cases, the monthly spending on plumbing work is equivalent to the cost of buying menstrual cups for all female workers¹²³.

Finally, leveraging targeted incentives, notably via online tools, could be an interesting model to explore to reduce the price of cups. [Triggerise](#), an organization operating in six sub-Saharan African countries, uses this approach to encourage young people to regularly use SRHR services. Adolescents enroll on the platform (2.2 million have done so since 2015¹²⁴), where they can learn how to access services from a network of healthcare providers, for free or at a subsidized rate. Once they have visited one of the facilities, Triggerise encourages them to rate it, to ensure quality and accountability. The company gives rewards for each rating that can be exchanged in local shops for basic products, like sanitary pads. Menstrual cup manufacturers could add their products to the platform to build their reputation in a trusted environment, while lowering barriers to purchase.

■ Mechanisms to support adoption

The most cost-effective way to support menstruators on their post-purchase learning curve is to leverage digital tools, as done by Sirona. This can be particularly relevant where social media penetration is high, especially among adolescents: In Nigeria, for instance – where half of menstruators are aged 10-25¹²⁵ – people spend on average three hours and 42 minutes on social media every day¹²⁶.

Because of all the support the cup requires (to get it to market and educate menstruators on how to use it), defining the best solution to give access to the cup to all motivated menstruators is not easy. Testing various approaches commercially would determine if it the menstrual cup is an interesting market opportunity for companies, or a product better suited to being donated.

3.3.2 Depending on the success of these tests, invest in scaling the adoption of the cup

If the tests mentioned above show potential for menstrual cups in the commercial market, donors will have a key role to play in supporting market-based players in replicating successful tests. If market tests show that a significant share of menstruators overcome first trial challenges, and that digital tools' uptake among low-income populations is promising, donors would have enough evidence to build a business case to convince companies to invest in the product. Companies that would be well suited to selling the cup, and which should therefore be a

¹²³ From Hystra interview with Radhika Chabria, CEO of The Shakti Menstrual Cup (2022).

¹²⁴ [Triggerise](#) (2023).

¹²⁵ LEAP (2021), "Menstrual Hygiene Landscape for Nigeria"; United Nations Population Fund (2017), "Adolescents and Youth Dashboard – Nigeria".

¹²⁶ Global Web Index (2022), "Social".

priority for donors to target, are those with a broad product portfolio (e.g., beauty or personal hygiene brands or distributors). These players could leverage their existing operations, hence limiting the costs of distributing the cups, and use the cup as an opportunity to generate additional revenues at limited added costs. Menstrual cups are low-tech products that can be procured in bulk from existing manufacturers (costs can be as low as 0.5 USD per cup in China), which removes product development costs. An example of such distributor is Lidl – a discount retailer chain in Europe and the US – that started distributing a menstrual cup in France at 11 USD¹²⁷, while other cups' prices usually range from 16-32 USD¹²⁸.

On the other hand, if tests do not confirm commercial viability, donations could be the best way to spread the cup's benefits among low-income consumers. International organizations have followed this path for many vaccines in the Global South, since the commercial approach would have taken too long. Organizing large-scale vaccine donation programs was much more effective to ensure coverage of most of the population, and, hence, to ensure general immunity. Although menstrual hygiene does not have the same collective requirement as vaccines, cups could be good candidates for donation programs. First, they are affordable: Manufacturing costs can be as low as 0.5 USD per cup in China, for a product that can be used for 10 years¹²⁹. They are also easy to store and transport. Finally, cups have a great “impact for investment” ratio: The budget required for one year's worth of disposable pads for one menstruator would cover five menstruators for 10 years with the cup¹³⁰ – or a one to 120 overall cost ratio between giving an individual a cup or disposable pads, for 10 years. However, to significantly lower the current outreach and adoption cost from over 50 USD per convinced menstruator to a few dollars, it will be essential to fine tune the promotion and training approaches (e.g., conducting only the number of trainings absolutely required, finding an effective “train the trainer” model rather than training the entire community, etc.). If improved effectiveness and economies of scale facilitate the lowering of these training costs to a quarter of their current cost per menstruator (i.e., 12.5 USD instead of 50), the budget to provide cups to the 48 million menstruators in Bangladesh¹³¹ would, for instance, be 750 million USD¹³². This is compared to the 9.8 billion USD required to provide them with disposable pads over 10 years.

¹²⁷ Femina (2022), “Lidl launches menstrual panties at an unbeatable price in its stores”.

¹²⁸ *Coupermenstruelle.net* (2021).

¹²⁹ As estimated by Paul Dove, from PA Dove Solutions Ltd. (2023).

¹³⁰ Comparing a pack of Whisper Choice Ultra disposable pads in India with a Sirona menstrual cup.

¹³¹ LEAP (2021), “Menstrual Hygiene Landscape for Bangladesh”.

¹³² This is assuming the program covers all menstruators, and compares the price of one menstrual cup (produced in India) with the price of disposable pads (15 per menstruation) from the market leader in Bangladesh.



A Real Relief worker with a Safepad pad

Credits: Real Relief

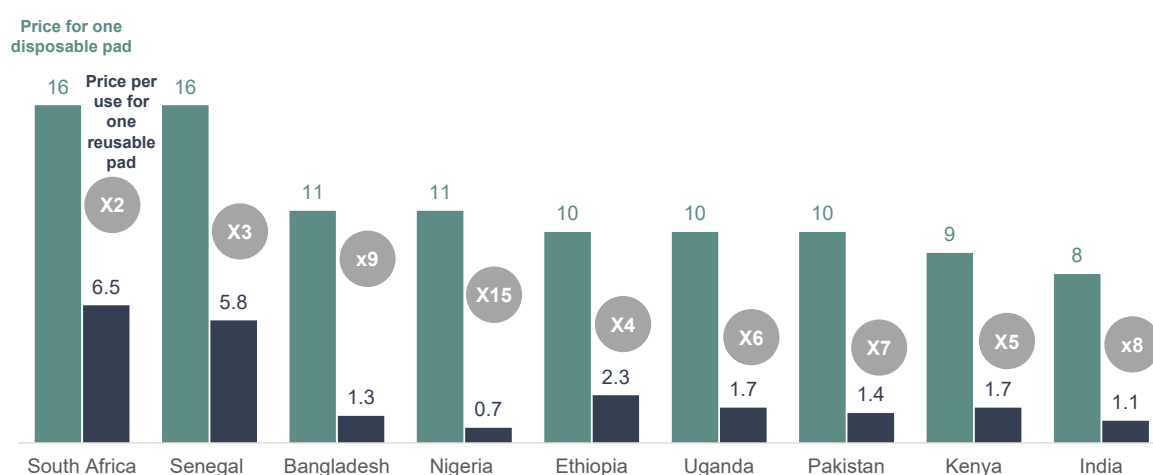
4. REUSABLE PADS: A SIMPLE AND COST-EFFECTIVE (BACK-UP) SOLUTION FAVORED BY DONORS, BUT WITH UNPROVEN COMMERCIAL POTENTIAL

4.1 REUSABLE PADS ADDRESS MOST LOW-INCOME MENSTRUATORS' CHALLENGES, AND THEREFORE RECEIVE WIDESPREAD DONORS SUPPORT

4.1.1 Reusable pads are simple to use, less expensive per use than disposable pads, and perform better than homemade solutions

A reusable pad is four to 15 times cheaper per use than disposable pads. Reusable pads sold in retail cost between 0.4 and 3.9 USD per pad¹³³ and can be used at least 60 to 100 times depending on the brand. The savings generated by reusable pads and their payback time depend on the relative prices of disposable pads, as well as the pack size. Yet, the cost per use (shown in Figure 19) is always cheaper than disposable pads. Of note, this cost per use is based on the number of washes that brands guarantee; in reality, this cost is probably lower, as menstruators can often use the pads for longer than the guarantee period.

Figure 19 - Cost per use for disposable and reusable pads in various countries, in USD cents



Source: Hystra analysis based on prices of market leading disposable and reusable pads, with a hypothesis of 60 uses per reusable pads; except for Bangladesh, where Safepad states that menstruators can wash each pad 100 times.

¹³³ Hystra analysis based on prices of reusable pads available in the eight countries of focus.

Reusable pads also offer better comfort and convenience compared to homemade solutions, thanks to their fastening mechanisms and higher absorption capacity. Commercial reusable pads work the same way as cloth but with optimized raw materials: Instead of regular textiles that last only two to four hours, they are made of super absorbent material that can absorb 10-20ml of fluid. According to a study done in Nepal with 182 respondents by a client of Real Relief, one of the two largest brands of reusable pads globally, 46% of menstruators reported that their product can be used for four to six hours during heavy flows, with 33% of recipients able to use them for longer. As a result, a pack of four reusable pads is sufficient for most menstruators to cover a full menstruation (if washed daily). In addition, the fastening mechanism ensures the pad stays in place and allows menstruators to move around more comfortably than when using homemade solutions: *“Cloths are not comfortable to walk in because they are thick and can easily fall, so you have to walk slowly and in an abnormal way.”* (Kenya).

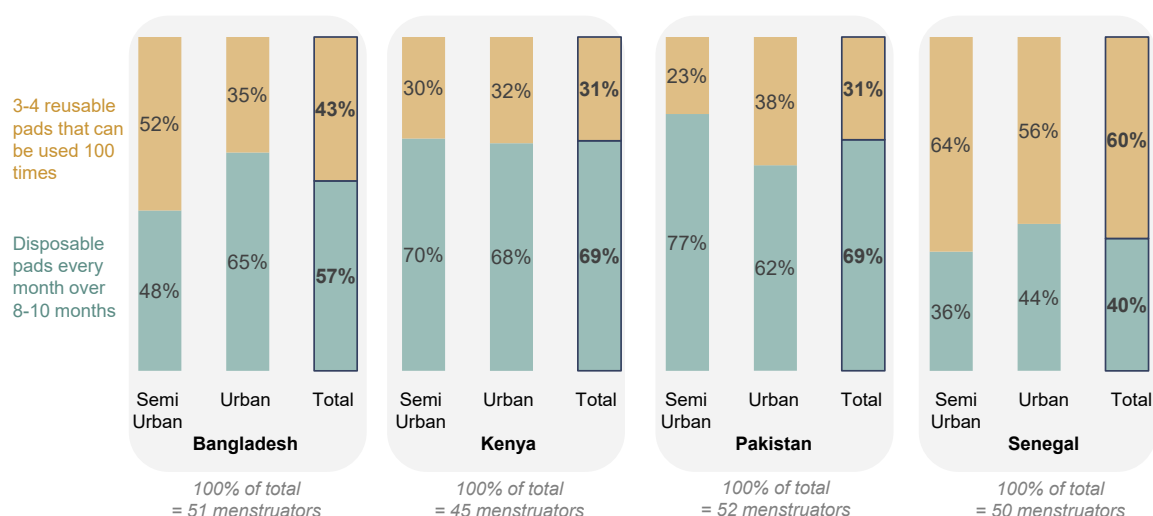
Furthermore, design innovations have improved safety and comfort. Large players have invested in R&D to make reusable pads more convenient:

- Safepad's (Real Relief's brand) chemical treatment has a 99% anti-microbial efficacy against fungus, bacteria, and yeast; all but eliminating the risk of infection that comes with reusable pads, if not dried properly, at a minimal cost per pad. The use of polyester also reduces drying time to 30 minutes if dried in the sun, according to the company.
- AFRIPads, the leading social enterprise manufacturing reusable pads, also manufactures a panty that ensures that the reusable pad stays in place well. All their packs include a disposal bag to facilitate changing during the day.
- **Eco Femme**, an Indian social enterprise founded in 2010, has designed a pad that, when unfolded, looks like a random, square piece of cloth, thus allowing menstruators to avoid any perceived shame associated with drying menstrual products outdoors.

4.1.2 Reusable pads are a satisfactory solution for some low-income menstruators

Qualitative consumer research shows theoretical interest in the product. In all the countries where consumer research was done for this report, at least 30% of respondents declared a preference for reusable pads over disposables. In Senegal and semi-urban Bangladesh, these numbers climbed to over half of the respondents, as seen in Figure 20. In other consumer research conducted in Nigeria¹³⁴, when introduced to reusable pads, menstruators gave them high scores on key expectations for a menstrual product: to the question *“How relevant do you feel that this idea is to you?”*, respondents gave reusable pads 4.1 out of five, on average, and 4.2 for excitement in using them.

Figure 20 - Preference for reusable or disposable pads in Bangladesh, Kenya, Pakistan, and Senegal (for a similar price point)







Source: Bopinc (2023) unpublished research among 198 urban and semi-urban menstruators: 51 in Bangladesh, 45 in Kenya, 52 in Pakistan, and 50 in Senegal.

¹³⁴ Hystra internal research.

Respondents' testimonials seem to link these theoretical preferences with the high pain points of current alternatives (cost, quality, or disposal issues), that reusable pads would at least partially solve, as illustrated in Figure 21. For example, in semi-rural areas of Bangladesh that still have low penetration of disposable pads, menstruators who have not fully switched to disposable pads see them as an improvement over homemade solutions that are less safe, convenient, and comfortable, and sometimes also cost money: *"Reusable pads seem soft, with a nice finishing, and I know how to use them since I already use cloths"* (Bangladesh). In Senegal, where disposable pads are relatively expensive (menstruators mixing them with other solutions while at home) and where the taboos around blood lead some menstruators to wash their disposable pads before throwing them away, a reusable pad actually solves the issue of disposal, while generating savings: *"You can reuse the reusable pad, and you can put it to dry on the line without shame because it looks like a bag."* (Senegal). Menstruators in Bangladesh who use a combination of solutions also compared reusable pads favorably to disposables: *"I feel reusable pads will not give me that itching and dry feeling."* (Bangladesh).

Figure 21 - Reasons for switching from disposable pads and cloth to reusable pads

 Switching from	 To Reusable pads 
Cloth 	<ul style="list-style-type: none"> • Leakages and frequency of changing • Uncomfortable • Difficult to keep in place
Disposable pads 	<ul style="list-style-type: none"> • High cost over time • Need to have money available each month at the right moment • Poor quality, leading to rashes and either dryness or humidity sensation • Disposal challenges given norms around visible blood • Disposable pad not sufficient for heavy flow - nappies used instead (Senegal) • Health perception

Source: Individual interviews conducted by Bopinc with more than 60 menstruators in Bangladesh, Kenya, Senegal, and Pakistan.

Donated quality reusable pads get over 90% positive feedback from menstruators who have used them. Based on a survey of 270 respondents in a refugee camp in Uganda, 99% had tried AFRIPads and 92% used them during their last menstruation¹³⁵. In 2022, a Real Relief study in Laos found that 92% of menstruators who had received Safepads pads had tried them. Of those who tried the pads, 95% used them regularly and 88% would recommend them to other menstruators in their community¹³⁶.

There is also anecdotal evidence from market leaders' consumers showing that reusable pads are a well-liked solution, at least as a back-up. In the main wholesale market of Kampala, wholesalers selling AFRIPads, among other products, had tried the reusable pads during their own menstruations at home or during the night. While AFRIPads stopped most of its marketing of reusable pads several years ago, it still sells over 60,000 two-pad packs per year in Uganda; likely from repeat consumers replacing old pads or buying new ones for family members.

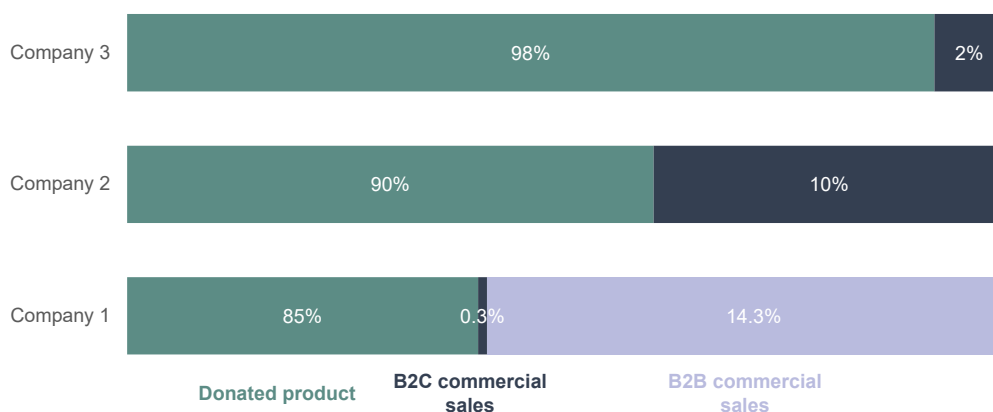
¹³⁵ UNHCR (2018), "Pilot study findings on the provision of hygiene kits with reusable sanitary pads".

¹³⁶ CARE Lao PDR (2022), "Safepad final report post distribution monitoring, April 2021-June 2022".

4.1.3 As a result, donors have made reusable pads one of their preferred options

Reusable pads have been a favorite option of donors over the past 10 years, with over 30 million pads distributed for free since 2010. Reusable pads are easier and less expensive to donate than a large stock of disposable pads and fit very well into donors' procurement criteria. For example, UNICEF states that it aims "for the best value for money considering whole lifecycle costs, reducing environmental impact and promoting local markets and human rights¹³⁷". These donations mostly target emergency settings, where menstruators cannot access any other commercial solutions for menstrual hygiene.

Figure 22 – Share of donation versus retail sales for largest reusable pad players in several countries of the Global South¹⁵⁷



Source: Hystra analysis, based on interviews with AFRipads and Real Relief (2022), and BeGirl (2021), "Impact report 2021".

Reusable pad manufacturers have tailored their offer to create a holistic solution for donors, who procure over 80% of the reusable pads that manufacturers sell; most of which are then given to menstruators for free. To serve institutions well, AFRipads offers to build a custom kit by selecting any combination of reusable pads that will suit donors' – and menstruators' – needs, and durable underwear specifically designed to complement the pads. In addition, the company provides an MHH education toolkit, which includes a flip chart package, an information poster, and a booklet with MHH education content for menstruators, as well as actual training to partners (both in-person and online), led by its in-house menstrual health trainer. Finally, AFRipads has built a data collection toolkit to support data-driven decisions in MHH programs, including a 10-step guide on planning and executing MHH data collection, as well as various templates. All these tools maximize the chances of consumers adopting reusable pads, as a result of programs sponsored by donors.

4.2 HOWEVER, ONLY A FEW PLAYERS HAVE PUT SIGNIFICANT COMMERCIAL EFFORTS INTO PUSHING THIS PRODUCT, WITH LIMITED SUCCESS

4.2.1 Despite the benefits of reusable pads, selling them requires overcoming multiple barriers to first trial, including concerns around convenience, hygiene, and cost

Commercial reusable pads remain relatively unknown in the Global South. The first challenge is thus related to awareness of reusable pads among menstruators, who sometimes know them from donations but are mostly not familiar with them, even though they find the products intuitive to use: "I have never used the reusable but I could guess what it is for." (Pakistan); "If you are a woman and see this shape, you automatically know what it is for." (Senegal). This is probably partly because the reusable pads market is still in its infancy, with most brands launched between 2008 (AFRipads) and 2018 (BeGirl) as opposed to the 1990s for disposable pads¹³⁸.

¹³⁷ UNICEF (2019), "Guide to menstrual hygiene materials".

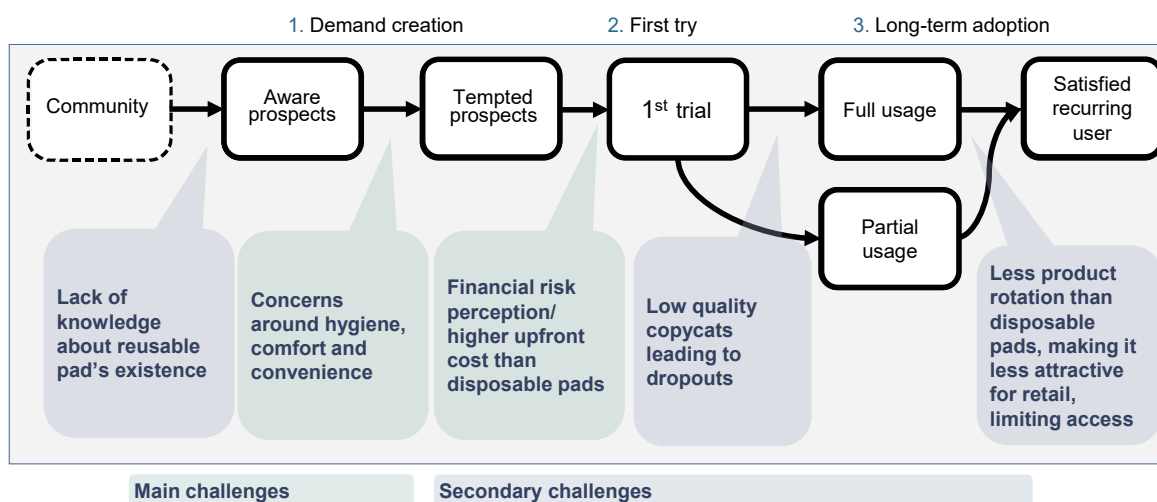
¹³⁸ P&G launched disposable pads in India and Kenya in 1992, for instance.

Whether replacing homemade solutions or disposable pads, reusable pads prompt questions about their convenience, and the hygiene of washing and drying them. Indeed, if they replace disposable pads (or disposable homemade solutions), menstruators typically have concerns about the convenience and hygiene of washing them, versus the ease of throwing away used pads: “It seems nice but you have to wash it, dry it. It is the same as the cloth solution, not convenient.” (Bangladesh); “I have heard about reusable pads, but I’m afraid of the hygiene implications. I feel disgusted by the sight of blood.” (Senegal). Similarly, if they replace reusable homemade solutions, reusable pads can seem more high maintenance. They require a more thorough wash than multilayers of cloth (where it is easier to see if a stain has been removed, and which can always be thrown away if too complex to wash); and also need to be dried without attracting attention, because of their distinctive shape. In both cases, they also prompt questions about how long they can be worn without issues: “Cloth pads don’t look safe, they are too thin. The cloth I use is four times its thickness.” (Pakistan); “I do not like reusable pads because if you do not clean it well it can cause infections. Some pads are not of good quality, so you are not guaranteed comfort.” (Kenya).

The upfront cost remains a key barrier for menstruators interested in reusable pads. Buying a pack of reusable pads represents a significant investment for low-income menstruators. In Uganda, one of the markets with the most attractive retail prices for reusable pads, one pack of two So Sure pads (AFRIPads’ commercial brand) costs the equivalent of 2.7 packs of eight Always pads¹³⁹ – and will not suffice to cover a full menstruation. Reusable pads not only represent a larger investment than disposable pads but are also seen as a risky investment because menstruators do not know in advance if they will be satisfied with this solution.

Finally, as low value, durable items, reusable pads are not an attractive proposition for retailers, which creates access challenges. As explained by AFRIPads management team: “Disposable pads are a better deal for shop owners (small margin but repeat business without promotion) – they don’t see a strong enough business case to get into reusable pads.” As a result, reusable pads remain mainly available for purchase via online sales channels at this stage, except in Uganda, where AFRIPads invested significantly in marketing between 2014 and 2018 and still has some presence in large retail shops.

Figure 23 – Main challenges to adoption of reusable pads in commercial markets



Source: Hystra analysis based on AFRIPads consumer insights.

4.2.2 Low-quality options in a few markets have reduced trust in this product

Cheap, low-quality copycats are putting the growth of this nascent market at risk by creating distrust in the products. The institutional success of AFRIPads has motivated other companies to follow. This was made easy by institutional buyers, who shared AFRIPads’ product specifications as part of their tender criteria. A few Indian and Chinese providers now sell similar-looking products at lower prices – up to 20-30% cheaper. One of these copycat products can also be found in retailers in Uganda. Yet the quality of these products is poor, as explained by a Ugandan consumer: “I bought the cheaper version of reusable pads for my teenage girl. However, it leaked and created rashes, so she stopped using it.” AFRIPads research found that these producers had opted for lower-quality, lower-cost materials.

¹³⁹ Comparing a pack of eight Always pads sold at 2,700 UGX (0.72 USD) to a pack of two So Sure pads sold at 7,300 UGX (2 USD).

Just like for disposable pads, artisanal production of reusable pads, which a few donors and NGOs have promoted to enable local women to earn an income, has often led to lower-quality, more-expensive products than those made through a centralized production model. While it is, in theory, appealing to provide local, low-income women with an opportunity to make pads for their community, this strategy often fails to generate sustainable revenues for the women producing the pads, as they only have access to very small markets around their home and earn limited income from this activity¹⁴⁰. Furthermore, the artisanal nature of the production and the lack of quality control has often resulted in products of varying quality. *Days for Girls*, a global charitable organization aiming to end menstruation's stigma and limitations, works to overcome the challenges associated with decentralized production by training (predominately) female social entrepreneurs. The organization provides them with an innovative, washable pad pattern and global quality and hygiene standards that meet national washable pad standard requirements – in the few places where these exist (e.g., Kenya and Uganda). It also provides good quality raw materials at competitive prices and connects them with NGOs for bulk orders. This enables many entrepreneurs to be relatively successful and achieve their goals. Days for Girls-certified social enterprises sell on average 5,700 to 6,900 kits per year, with several exceeding this. Yet, a very small share of sales goes directly to consumers (most of the pads are sold to NGOs) and prices remain more expensive than for centrally-produced reusable pads¹⁴¹.

Indeed, small manufacturing units might not yet fully capture potential economies of scale. As for disposable pads, centralized production allows savings on raw materials: Large-scale units producing more than a million pads per month can get a 15% discount¹⁴², and they use the raw materials more efficiently, thanks to automated machines limiting waste. Other costs are also lower, since automated processes also reduce variable costs, while fixed costs are spread over larger volumes.

4.2.3 Like for the menstrual cup, conventional commercialization approaches are not suited to marketing reusable pads, and no companies have succeeded in this at scale

As with the menstrual cup, conventional approaches are not structurally adapted to the sale of reusable pads. Despite being more expensive than cups, for a full solution of four to six pads, and requiring more frequent purchase (every one to two years), affordable pricing for reusable pads does not allow sufficient margin for large marketing investments and does not offer attractive, repeat retail margins to retailers. Furthermore, in the Global South, very few reusable pad companies have tried to sell their products commercially, due to manufacturers' concerns around the price barrier compared to disposable pads. “*The product is still too expensive for large-scale retail,*” says a representative from one of the reusable pad companies' management teams.

Of those who tried, AFRIPads is one of the only companies that has sold reusable pads commercially at a promising scale, but has yet to find a model to sustainably grow sales. The company has managed to achieve yearly sales of over 230,000 two-pad packs at its peak, reaching 2% of Ugandan menstruators per year. If these results demonstrated some willingness to pay, they required an investment of several hundred thousand dollars in marketing. At the time, AFRIPads did not find a way to scale these efforts sustainably, with marketing expenses eating into 50% of the sales revenues. As of 2023, having stopped most marketing investments, the B2C channel is breaking even. Yet, with sales representing only 25% of peak volumes – likely showing repurchases from at least 25% of its initial consumers – it is not clear why the other 75% have not provided repeat custom.

In practice, in markets of the Global North, reusable pads have not found their place in the expanding reusable menstrual product range. As observed by an MHH expert: “*The cup and menstruation underwear are expanding fast but reusable pads don't really have a place in more developed markets.*” We hypothesize that, in a world with fewer budget constraints, an improved WASH environment, and fewer quality and disposal issues for disposable pads, reusable pads' value proposition is less attractive than that of other MHH products, including reusable panties that provide a more holistic (but more expensive) solution. Yet, reusable pads' simplicity and low cost per use could still make them a great back-up option for low-income menstruators, especially where disposable product quality or opportunities for disposal remain key challenges.

¹⁴⁰ Beyond the learnings from the case studies in this report, this issue has also been documented by others, e.g., Fallon A., (2023), “*Are DIY menstrual pads an unsustainable menstrual trend?*”.

¹⁴¹ The raw material to produce one pad and two liners is sold at approximately 9,400 UGX (2.53 USD) to Ugandan entrepreneurs, which doesn't account for sewing costs, entrepreneurs' margins, or Days For Girls' overheads; while a pack of two So Sure pads is sold at between 7,300 (2 USD) and 8,500 UGX (2.3 USD) to consumers.

¹⁴² Hystra analysis based on AFRIPads and Real Relief interviews (2022).

4.2.4 As a result, the market potential of quality, reusable pads, while probably underdeveloped, remains to be proven

The contrast between menstruators' declared interest in reusable pads and these products' limited commercial success, combined with a lack of data on the people using them, makes it difficult to reach a conclusion on their market potential. The factors explored above are not conclusive, in terms of the potential of this product. The share of consumers interested in reusable pads will likely vary by country, based on the existing perception of reusable products, cultural preferences, and the pain points of current menstrual hygiene products.

Two questions would need to be answered to confirm the commercial potential of reusable pads:

- What share of consumers would try, and continue using, the products if proper marketing and distribution channels were in place?
- Could this be done cost-effectively – with the margins from consumer sales covering the sales and marketing costs of these products?

4.3 A PRIORITY SHOULD BE TO CONFIRM THE COMMERCIAL POTENTIAL OF REUSABLE PADS BY TESTING COMMERCIALIZATION STRATEGIES, WHILE PROTECTING THE (INSTITUTIONAL AND COMMERCIAL) MARKET FROM LOW-QUALITY OPTIONS

4.3.1 Solve the quality challenge by implementing international standards and new criteria for tenders, and focusing on centralized manufacturing business models

International standards, as well as new criteria for tenders, could help solve the quality challenge. Standards that define the specifications of reusable pads could reduce unfair competition from low-cost copycats, which creates distrust in the market. Aligning standards at the international level – as proposed by the technical committee working on ISO standards¹⁴³ – could also help producers increase their market size; since the same product would be adapted to several countries' standards. This is, for instance, what Kenya started doing by aligning with Ugandan standards.

Tenders with criteria around the “cost per menstruator using the product over the long term” rather than “cost of the product” would push implementation agencies to opt for products that work best for program participants – thus incentivizing quality. This could be facilitated by social impact bonds or other types of output-based aid, where part of the payment would only be released based on proven, long-term product adoption, and user satisfaction. In parallel, focusing on centralized production (versus encouraging small-scale, local production) to enable economies of scale, lower prices, and higher quality products should be a priority for donors looking to encourage market growth.

4.3.2 Design and test more commercially oriented products to overcome menstruators' concerns

Improved design could address some of the recurring concerns mentioned by menstruators about pads, such as drying time and visibility of stains. Generalizing innovations mentioned above could help address some of these key concerns.

Another consumer-friendly option would be to offer one-pad packs, removing some of the risk of trying a reusable pad by limiting the initial investment. As reusable pads can be combined with other solutions, there is no need to only offer larger packs that cover the full menstruation. A one-pad pack at a lower price than existing multiple packs could help consumers overcome the first trial barrier and test it as a product complementary to others (e.g., cloth/disposables) – to generate savings or for additional safety against leakages.

¹⁴³ ISO (2022), “ISO TC 338 - Menstrual products”.

4.3.3 In countries with consumer interest in reusable pads, confirm commercial potential by testing cost-effective BTL (below-the-line) campaigns and tactics to reduce risk perception, measuring product uptake and continued usage

Countries likely to have the most people interested in adopting these products are the ones where reusable pads have a larger competitive advantage given the pain points of existing alternatives, or where reusable pads already have a positive reputation. As mentioned earlier, Senegal and semi-urban Bangladesh could be good candidates for such a test, given the pain points of current alternatives. Another country to trial BTL activities in is Uganda, one of the only markets where reusable pads are already known and benefit from a good image thanks to previous marketing efforts by AFRIPads.

In these countries, confirming market size potential will require the testing of marketing tactics that can reduce risk perception and overcome first-trial concerns, for which BTL activities¹⁴⁴ (and online marketing where relevant) are typically well suited. A few ideas that could be explored include:

- Better advertise the price and savings generated by reusable pads over disposable ones, including helping menstruators compute how much they would save. In the qualitative research conducted for this report, the share of menstruators ranking reusable pads as their first choice when prices were disclosed rose to 27%, from 11% before price disclosure.
- Run marketing events with product demos and provide free (one-pad) samples to debunk preconceived ideas around reusable pads. Another option, in addition to selling on the spot, would be to provide discount coupons with limited time validity at every marketing event, for those who do not have the cash to buy straight away.
- Develop partnerships with pharmacy chains that can explain the products, providing free samples to the pharmacists so they can share their experience with prospective consumers, and conducting demos/ explanations of products in places with high traffic close to those pharmacies.
- Work with other health-related networks (e.g., community health workers or equivalent) to offer this product as a complement to their existing basket of products, ideally training them to respond to common concerns.
- In places with high social media penetration among younger people, propose online educational content and product placement to increase familiarity with the product, making it more aspirational and answering FAQs. For example, Sirona uses online videos on YouTube to reach tempted prospects and explain the benefits of using a reusable pad, as well as how to use and wash it.

This research should include activities to monitor the cost per converted consumer, which will be key to determining reusable pads' commercial potential. The number of potential consumers of these solutions must be high enough to cover the marketing costs required to convert them. The overall cost of this research could be limited by partnering with existing brands interested in leading such pilots, such as AFRIPads, in partnership with a Measurement, Learning and Evaluation institution.

4.3.4 Where market potential is proven, overcome the access challenge by including reusable pads in a portfolio of products

If the tests mentioned above show potential for the commercial market, there would be an opportunity to support market-based players in replicating successful tactics and finding the right suppliers. Sharing the results from these tests, if conclusive, would create a strong case for reusable pad producers looking to develop partnerships with health-related brands and/or distributors, like pharmacy chains, who could replicate the marketing best practices tested during the market tests to maximize product penetration. As for menstrual cup distributors, these companies could add reusable pads to their portfolio at minimal cost, while generating new business opportunities.

¹⁴⁴ BTL marketing includes on-the-ground activation activities such as parades, trucks with DJs along main roads and at weekly market sites, and advertising the products through concerts, flyers, providing samples, etc.

If reusable pads attract a significant share of menstruators, but BTL activities to overcome first trial are too expensive to be covered by product sales, subsidies could be the best solution to spread their benefits among low-income consumers. Beyond emergency settings where reusable pads are donated for free, donors might have opportunities to partially subsidize reusable pads to match menstruators' willingness to pay. This would maximize the number of menstruators reached and the impact achieved, via output-based aid mechanisms. As with menstrual cups, other players might see indirect benefits from the use of reusable pads (e.g., factory owners seeing reduced absenteeism) and could provide another source of co-funding or subsidies.



THE FALLOPIAN TUBES
are the tunnels that carry the egg from the ovaries into the uterus.

THE UTERUS WALL
is the lining of the uterus. It becomes thicker over the course of your menstrual cycle until it sheds off — this is menstruation. It builds back up again in the next cycle.

THE UTERUS
is the muscular organ inside the woman's stomach that can expand to hold a growing baby.

THE OVARIES
are where the woman's eggs are stored.

THE CERVIX
is the bottom of the uterus. It has an opening through which menstrual blood and babies leave the uterus and through which sperm can enter to fertilize an egg.

THE VAGINA
is an elastic and muscular tube that reaches from the cervix to the vaginal opening. Women have three different holes, and the vaginal opening is placed between the anus and the urethral opening. When giving birth the baby exits through the cervix and the vagina.



If the girls are eager to ask questions let them know the next session is likely to answer all of their questions. If not, there will be a round of questions before the next session.

2.3 MY MENSTRUAL CYCLE & HOW I FEEL



OBJECTIVE
Understand how the menstrual cycle works and how you feel at the different stages.

Go through the menstrual cycle step by step and remember to include how most girls feel at the different stages in their cycle.

- 1 Start by explaining that the menstrual cycle is a normal process that girls and women's bodies go through. For most women, this cycle takes about 28 days and then it starts over again, but it is very normal for this cycle to last between 21 and 40 days in adolescents. When you first start menstruating, it can take some time for your body to get used to this new process, so the beginning girls usually have menstrual irregularities, meaning their periods do not always come when expected.
- 2 When a girl reaches a certain stage in puberty, one of her ovaries releases a mature egg — this is called ovulation. Ovulation will continue to occur once in each menstrual cycle. One egg leaves the ovary, it enters the fallopian tube, and enters the uterus. (This is when some girls experience cramps and intensified emotions.)
- 3 The uterus...

5. EVERYONE HAS A ROLE TO PLAY: GOVERNMENTS CAN HELP ENSURE QUALITY, DONORS AND NGOS CAN HELP INFORM MENSTRUATORS AND SHAPE THE MARKET, AND PRIVATE PLAYERS CAN PROVIDE IMPROVED CHOICES

As seen above, the key to enhancing menstrual health management globally is to ensure menstruators get access to a choice of quality products matching their changing needs and constraints, including safe, comfortable, and sustainable disposable products; as well as well-designed and well-explained reusable products.

This requires efforts from all the ecosystem players: Governments, NGOs, donors, and private actors. For each of these stakeholders, we propose below key recommendations to help make this vision a reality.

5.1 FOR POLICYMAKERS: INVEST IN A SUPPORTIVE ENABLING ENVIRONMENT, PROTECTING QUALITY AND SUPPORTING BROADER AWARENESS OF MHH PRACTICES AND PRODUCTS

5.1.1 Quality: Improve safety and quality by establishing and enforcing internationally agreed standards, for both disposable pads and reusable products

As explained in the report “In Standards We Trust: Building the case for international standards for menstrual products¹⁴⁵”, safety and quality standards and their enforcement are required to protect consumers against poor quality MHH products that might create health issues or lead to distrust. Ensuring that these standards are aligned internationally is key to facilitating business and spurring on innovation. It should, however, be noted that, while additional standards can improve the quality of the market, they may also act as a deterrent to social entrepreneurs because of the time and money required to attain this type of certification. Defining simple requirements and relatively quick certification processes will, therefore, be essential to ensuring that standards protect consumers, while not limiting market entries, especially of smaller players.

What can policymakers do about this?

- **Support current work on ISO standards¹⁴⁶** led by The Case for Her, by volunteering expertise and committing to enforcing the standards that will come out of the project¹⁴⁷.
- **Regulate claims that brands can make about health benefits** to ensure informed choices for menstruators, thus preventing price premiums based on unsubstantiated claims.

¹⁴⁵ Perianes M., et al (2022), “In Standards We Trust: Building the case for international standards for menstrual products”.

¹⁴⁶ ISO (2022), “ISO/TC 338 - Menstrual products”.

¹⁴⁷ For more information on this current work, see the article by The Case for Her (2022), “The World Votes YES to Menstrual Product Standards”. If you are willing to get involved in this work, please reach out to The Case for Her.

148 World Bank (2022), "Solid waste management".

Outside of schools:

- Provide access to resources, community support, and expert advice on MHH and SRHR, as well as clinical referrals for gynecological issues. In Kenya, ZanaAfrica launched The NIA Network partnership with a collective of health and education organizations to promote free or affordable phone-based services showcased on the packaging of its disposable pads. Another great resource is [Okya](#), a mobile app co-developed by UNICEF with young menstruators in Indonesia and Mongolia, that offers an open-source encyclopedia of puberty and a menstruation tracker, freely available in multiple languages¹⁴⁹.
- Implement community training sessions to help shift social norms around menstruation (and gender equality in general) by educating influential people (e.g., village leaders) on MHH norms and proper management – like Ruby Cup is doing by involving men in the training sessions of its cup distribution programs.
- Help normalize conversations around menstruation by encouraging discussions in media, including in movies and TV shows, on the radio, and in newspapers. Building on the “Pad Man” movie’s success in raising MHH awareness in India, support film makers or other artists ready to incorporate messaging about menstrual health and products in their production.

5.1.4 Affordability: In countries that still apply VAT and/or import taxes to MHH products, assess whether removing taxes could help improve the affordability of products, given the current competitive landscape; and (re)design free distribution programs

Despite them having decreased over the past few years, prices remain a barrier preventing low-income menstruators from accessing sufficient MHH products to cover their full menstruation. While production costs have largely been optimized, taxes can be a lever for policymakers to act on. As explained by Dr. Laura Rossouw and Dr. Hana Ross¹⁵⁰, removing taxes on MHH products can be a necessary (if insufficient) condition to lower MHH product prices – and must be combined with a competitive dynamic to benefit consumers.

What can policymakers do about this?

- Consider whether lowering or removing VAT and import taxes could help reduce overall product prices, based on current competitive dynamics and local industry capabilities.
- Alternatively, consider targeted subsidies for low-income menstruators via free distribution (including of reusable products) or subsidized channels; if free distribution of disposable pads is already in place, assess the cost and benefits of offering quality reusable products as a possible choice for menstruators. Although more costly in the short term, quality reusable products should save money for these programs over time; possibly resulting in better uptake than that of disposable pads of varying quality.

5.2 FOR DONORS: DEMONSTRATE THE IMPACT CASE, COORDINATE EFFORTS, SUPPORT AWARENESS RAISING ABOUT VARIOUS SOLUTIONS, AND DE-RISK TESTS FOR REUSABLE OPTIONS

5.2.1 Integrate and coordinate efforts to push the MHH agenda

A multi-faceted topic like MHH requires multi-sectoral solutions (including MHH education, a proper WASH environment, and access to quality products); which, in turn, require coordination of funding, activities, and learnings. Yet, there is still no natural place for this topic within donors’ organizations. Various departments including reproductive health, WASH, and women’s empowerment, are impacted – but none have MHH at their core.

¹⁴⁹ Tyers A., (2020), “Okya: Co-created with girls, for girls”.

¹⁵⁰ Ross H., and Bill & Melinda Gates Foundation (2020), “An Economic Assessment of Menstrual Hygiene Product Tax Cuts”.

What can donors do about this?

- **Better coordinate efforts between departments** by appointing a focal point within the organization who would oversee mainstreaming menstrual hygiene within relevant programs, and who would have a clearly defined institutional remit and clout. Building bridges between activities falling under different departments (e.g., WASH, SRHR, family planning, women's empowerment, etc.) in given geographies could create positive synergies and have a multiplier effect on impact, at a low marginal cost. For instance, PSI, an international NGO working in improving access to healthcare integrates menstrual health into its existing programs on SRHR, building on synergies between these topics¹⁵¹.
- **Look to coordinate with other donors interested in this space** to track common impact metrics and share learnings, to accelerate progress, and to avoid duplication of efforts.

5.2.2 Run research to inform other players' efforts (e.g., NGOs, private sector players, etc.) and stimulate more funding for the sector

Because of the lack of a proper "home" for MHH in traditional aid organizations, the topic has seen a dearth of investment; including in terms of research. When preparing this report, we were surprised to see how few resources are available on the topic. While small-scale studies exist, that all suggest improvement of menstruators' lifestyle and wellbeing when they access better menstrual hygiene solutions¹⁵², the sector still lacks larger, quantitative research. This kind of research would fulfill donors' understandable requirements for proven SROI when prioritizing resource allocation; and help NGOs and private sector players understand where and how they can play a role.

What can donors do about this?

There is a key role to play for risk-taking donors in investing in the necessary research to unlock further support for the sector.

- **Invest in quantitative research to:**
 - **Provide a better understanding of menstruators' current habits and needs**, especially by collecting data on the level of MHH awareness and penetration of different products. This would include the share of menstruators mixing homemade and commercial solutions, the frequency of usage of each, and the number of current products used per menstruation versus the ideal scenario; by wealth quintile to quantify the affordability issue, and by age range to refine future scenarios.
 - **Validate the impact case for investments in the MHH sector**, by measuring the SROI of various types of interventions, combining product access and education, and collecting data specifically on:
 - The SROI of satisfactory MHH management solutions on key development outcomes (e.g., revenue generation, education, health, mobility, women's empowerment, etc.) — for which indicators would need to be defined beforehand — to inform donor's prioritization of menstrual hygiene programs versus other priority areas.
 - Preferences for each type of product if they were all available, to motivate private sector players with relevant products to enter the market. This would not just be a theoretical exercise, as small-scale trials run by The Case for Her¹⁵³ have found that consumers' declared preferences match their eventual purchases: *"We also found that, unlike in some other cases of consumer self-reporting, the girls buy what they say they will buy. (...) Girls' preferences are reliable predictors of their actual choices and purchasing decisions"*.
- **Quantify the market potential of reusable products among low-income menstruators** by supporting studies on the cost-effectiveness of MHH programs marketing these products; in particular, to understand the costs required for successful adoption. This would help determine which products and activities are sustainable enough to be private sector-led, and which ones need support from governments or donors. This could be

¹⁵¹ PSI (2023), "Menstrual Health". For more information, see also Punzi MC., and Hekster O., (2019), "Technical brief for the Integration of Menstrual Health in SRHR".

¹⁵² See for instance: USAID (2019), "Menstrual Hygiene Management and Women's Economic Empowerment – A review of existing Evidence"; Hennegan J., and Montgomery P., (2016), "Do Menstrual Hygiene Management Interventions Improve Education and Psychosocial Outcomes for Women and Girls in Low and Middle Income Countries? A Systematic Review"; Alam, MU., et al (2022), "Evaluation of a menstrual hygiene intervention in urban and rural schools in Bangladesh: a pilot study."

¹⁵³ The Case for Her (2021), "Making the case for investing in menstrual health and hygiene".

- done by leveraging existing efforts from leading reusable product brands, supporting these actors to trial new marketing tactics for middle-to-low-income menstruators e.g., Sirona in adapting its digital approach to lower-income quintiles in India, or AFRIPads in expanding its retail presence with cost-effective marketing efforts in Uganda.
- If adoption is sufficient to justify an investment, there would be an opportunity to support existing, quality private sector players (e.g., large femcare brands, existing reusable players, or large healthcare brands/distributors) in scaling up and entering new geographies where research shows early interest. Based on this report, those geographies would be Senegal, Nigeria, and Bangladesh for reusable pads; Kenya and Pakistan for menstrual cups. Donors could de-risk the launch of such products, while ensuring maximization of impact by defining key requirements (e.g., ensuring distribution in rural areas from the start).

5.2.3 Invest in the sector to promote good quality, environmentally friendly products

Beyond coordinating efforts to improve the efficiency of investments, experts call for more investments, in general, in the MHH sector¹⁵⁴.

What can donors do about this?

- Bring expertise and further coordinate advocacy for the current work on international quality and safety standards (see section 5.1, above).
- Encourage organizations offering quality products, in donors' own tenders, and, possibly, in the tenders of other organizations, via conditional co-funding:
 - Wherever possible, donors should change their own tenders' criteria to "the cost per menstruator effectively using the product over time", rather than just "the cost per product". This could be done by leveraging result-based financing mechanisms; and including funding for independent monitoring of program participants' satisfaction in the project tender. Publicize results so other donors can benefit from this information and use similar criteria.
 - Alternatively, offer matching funds for institutional tenders that use the criteria above. These matching funds should include a budget for the corresponding program participant satisfaction assessment.
 - Avoid supporting (or requesting in tenders) self-production or local production of reusable pads, as such production is neither effectively delivering impact to consumers nor providing a sustainable income for producers.
- Leverage investments to direct the sector toward more environmentally friendly products: Reusable options and biodegradable disposable products.
 - Support ongoing R&D efforts to reduce the cost of biodegradable disposable technologies, whether by investing in industrial pilots and purchasing intellectual property (IP) to make it open source, or by brokering partnerships between innovators like Aakar Innovations and large fast-moving consumer goods (FMCG) companies.
 - Invest in R&D for reusable pads to ensure products are as convenient as possible. i.e., they dry quickly, their design hides their purpose, and they have a high absorption capacity.
 - Consider targeted, outcome-based funding for private players distributing menstrual cups, reusable pads, or biodegradable pads, to encourage market building for these types of products, while lowering their costs for low-income menstruators.

5.2.4 In countries with limited commercial product penetration, support awareness-raising efforts, coupled with greater product availability

Donors have a role to play in helping policymakers make product education and access a reality.

What can donors do about this?

- Support governments in providing MHH education in schools and beyond (i.e., encouraging conversations about menstruation in media). Provide free access to a range of environmentally friendly menstrual products in schools, including reusable products.

¹⁵⁴ *ibid*

- Support governments willing to assess whether tax removal on MHH products or subsidized distribution are cost-effective policies to increase satisfactory menstrual hygiene management, (including product access), among low-income menstruators.
- Support companies with strong distribution or brand assets, such as SMC Enterprise Ltd., in providing access to a broader range of quality menstrual health products, including reusable products, together with appropriate information.

5.3 FOR PRIVATE SECTOR PLAYERS, SEIZE THE OPPORTUNITY TO FULFILL THE (PARTIALLY) UNMET NEEDS OF LOW-INCOME MENSTRUATORS BY IMPROVING THE VALUE FOR MONEY OF DISPOSABLE PADS AND ADDING REUSABLE OPTIONS TO PORTFOLIO PORTFOLIOS

5.3.1 Femcare FMCG brands: Develop a portfolio of products better adapted to menstruators' behaviors in the Global South

While large femcare brands have contributed to building the MHH sector in the Global South by investing in sizeable marketing campaigns and optimizing large-scale production to lower prices, a substantial share of MHH products available fail to fully meet menstruators' needs, as of 2023.

What can femcare brands do about this?

- Consider developing more affordable disposable stock-keeping units (SKUs) for low-income menstruators by exploring the (limited) opportunities to optimize cost per menstruation and/or reduce margins. Although such an approach may seem to run counter to business interests, it is a wise investment given (1) the increasingly competitive dynamics that will, in any case, bring down prices where they are not already low; (2) the reluctance of consumers who are too poor to buy MHH products (in sufficient quantity), but who are increasingly making them a priority; and (3) a context where disposable income is also increasing, and, thus, growing the attainable market.
- Invest in the R&D sweet spot, aiming at developing more affordable products that are both healthier and more environmentally sustainable. For instance, exploring the potential of local raw materials (especially for SAP) could be a way of reducing costs and limiting rashes, while reducing the environmental impact of disposable pads.
- As is currently done in the Global North, consider adding menstrual cups and/or reusable pads to product portfolios. While this may lead to some cannibalization of their disposable pad business, it will also avoid a scenario where existing consumers switch to other brands offering those reusable options; and help to truly and fully serve menstruators.

5.3.2 Other health-related companies: Consider adding MHH products to portfolios, leveraging existing distribution and brand assets

MHH products remain unavailable in most areas of some countries of the Global South, especially in rural areas (e.g., in Pakistan, Bangladesh, and Ethiopia) and prices are too high to allow low-income menstruators to cover 100% of their needs. In addition, reusable options suffer from a lack of awareness. Companies already serving low-income populations in underserved markets have strong assets (e.g., brand, production, and distribution) that could help make MHH products widely available.

What can health-related companies do about this?

- For companies owning production assets in adjacent categories (e.g., diapers) in countries with high disposable pad prices, consider developing an affordable, quality disposable brand. Sunda International, a Chinese conglomerate which owns manufacturing facilities in Ghana, Kenya, Tanzania and Senegal¹⁵⁵ has, for instance, successfully developed synergetic brands in the baby diapers and feminine hygiene categories.

¹⁵⁵ Chimhandamba R., (2020), "Africa's Hygiene Sector Leaders and Significant Players".

- For companies with trusted brands, consider adding MHH products to their own portfolio (possibly supplied from existing, quality manufacturers) to generate new business opportunities at a minimal cost.
- For health-focused last-mile distributors, including pharmacy chains, groups of community health workers, and healthcare distributors, leverage existing networks to spread awareness of MHH issues and add products to their portfolios; ideally as a range of products, including reusable options from the get-go.

5.3.3 Reusable MHH brands: Test cost-effective marketing tactics to overcome resistance to first trial and support long-term adoption

As mentioned in the above section, reusable brands must overcome resistance to the first trial (for both reusable pads and menstrual cups) and support long-term adoption (for cups).

What can reusable MHH brands do about this?

- For reusable pads, determine the potential segment size and the most cost-effective approaches to encourage first trial, by testing various BTL marketing activation activities and responding to menstruators' initial concerns; for example by providing samples to key stakeholders such as shop owners, wholesalers, pharmacists, etc. See section four for more suggestions.
- For menstrual cups, encourage first trial by offering a satisfaction guarantee and peer marketing model; i.e., first-time consumers get their cup reimbursed if they generate 10 sales. See section three for more suggestions.
- For both products, increase product familiarity by leveraging online educational content and product placement.



Workers operating a Saral Designs machine to produce Asani pads by Desai Foundation during a celebration

Credits: Desai Foundation

6. CONCLUSION

Quoting an expert, “*You can talk about gender equality all day long. If women do not have access to MHH products, there is no equality.*” MHH should be treated as a full-fledged topic, whose impacts on menstruators are both diverse and significant. While access to MHH products is only one piece of a complex puzzle, it is time the market adapts to menstruators’ needs instead of menstruators adapting to the poor product choice they are currently faced with.

While more evidence is still required to quantify the return on investment of improved MHH, the data collected at a small scale is encouraging, showing that embracing this challenge will have a positive and long-lasting impact on menstruators’ lives. This includes improved reproductive health knowledge and self-confidence, and the benefits they will derive from changes in social norms around marriage and sex¹⁵⁶.

While business models to reach low-income consumers still need to be refined, consumer research shows huge potential, with menstruators ready to pay for quality products. There are notably exciting opportunities to ensure reusable options are available on an equal footing with disposable pads, to finally offer a real, full choice to menstruators.

While menstrual hygiene education must be generalized and scaled up, countries like Kenya and India have started mobilizing resources to “*demystify menstruation and break the taboos, myths, and stigma around menstruation*”¹⁵⁷.

Finally, while quality remains a widespread issue for all types of MHH products in many countries, initial work on ISO standards brings hope for a world with more and better-quality products; which will benefit both menstruators and the social entrepreneurs that are innovating in the sector.

We hope that this report has highlighted the realities alongside the hopeful outlook of the MHH sector and has provided information that will enable interested stakeholders to act. It is our intention that this research will contribute to all menstruators becoming aware of the full range of MHH choices available to them; and that they gain the means and freedom they deserve to access their preferred choice, and live their lives fully, every day.

¹⁵⁶ Austrian, K., et al (2021), “*Effects of sanitary pad distribution and reproductive health education on upper primary school attendance and reproductive health knowledge and attitudes in Kenya: a cluster randomized controlled trial*”.

¹⁵⁷ Government of Kenya (2021), “*Menstrual Hygiene Management Policy*”.



Her Ground Founder Sadaf Naz conducting an awareness session on menstrual health in Pakistan

Credits: Her Ground



Credit: Hystra

CASE STUDY: AAKAR INNOVATIONS

Background information

- Company/brand: Aakar Innovations, selling the Anandi brand
- Type of organization: Social enterprise
- Product portfolio: Compostable and organic disposable pads and panty liners
- MHH product prices (consumer prices):
 - Anandi Eco+ (fluffy pads):
 - 40 INR (0.49 USD) for a pack of eight pads, size L
 - 60 INR (0.73 USD) for a pack of 10, size XL
 - Anandi Athletic (ultra-thin pads):
 - 60 INR (0.74 USD) for a pack of six pads, size Ultrathin XL
 - 70 INR (0.86 USD) for a pack of six pads, size Fluffy XXL
 - Anandi (ultra-thin pads):
 - 299 INR (3.7 USD) for a pack of 15 pads (size XL, XXL, or combo)
 - 249 INR (3.08 USD) for a pack of 40 panty liners
- Main countries of operation: India
- Scale (volume/year, 2021-2022): ~120,000 packs of pads

General description

Aakar Innovations was created in 2010 by Jaydeep Mandal, an Indian entrepreneur who came across sanitary pad manufacturing through meeting Muruganatham Arunachalam (known as “Pad Man”¹⁵⁸) via the National Innovation Foundation. Jaydeep noticed that some aspects of his machine were not optimized, e.g., the foot-operated press in the sealing machine was not comfortable for women to use, and the end-product had issues with its shape, thickness, and sharp edges. He worked toward a new, improved machine, to spread the innovation while creating jobs in villages. His initial model was to sell these machines to local organizations that employ women to manufacture and sell the pads locally. This has now become a marginal part of Aakar Innovations’ work, replaced by centralized manufacturing and sales.

In 2013, after Jaydeep realized that menstruators usually throw their used pads in open landfills, he decided to create a compostable and organic pad under the Anandi brand, to protect both the environment and menstruators’ health. In its current model, Aakar Innovations sells its pads commercially (through e-commerce and, soon, retail) and to NGOs, companies, and international organizations for reselling and free distribution.

In 2013, the company also established a non-profit arm, Aakar Social Ventures, which conducts awareness and behavioral change programs, undertakes education and advocacy around menstrual health in underserved areas, and delivers a ‘train the trainers’ program, to pursue its initial goal of supporting low-income menstruators.

Value proposition: Aakar Innovations’ Anandi pads are the only certified fully compostable pads in India, valued by consumers for their comfort and positive health impact

Anandi pads are free of any kind of harmful chemicals and made of a combination of organic cotton, bio-nonwoven, bioplastics, and wood pulp with unique plant-based SAP (a material added to the absorbent core of sanitary pads). The packaging is also made of sustainable materials. Anandi pads are fully compostable (degrading in 90–180 days compared to 500–800 years for non-biodegradable sanitary pads¹⁵⁹) and the only pads certified by the ISO standard 17088 on compostability, under the Bureau of Indian Standards’ latest Sanitary Pads Standard IS-5409:2019. Compostability is, however, not a panacea, since 28% of menstruators in India¹⁶⁰, and many more in other countries of the Global South, burn pads to dispose of them. Burning Aakar Innovations pads doesn’t release harmful substances like dioxins, contrary to regular pads, so this is still an improvement – albeit not a silver bullet.

In the eye of consumers, the key value of Anandi pads lies in their positive health impact. Except for some environmentally conscious – usually high-income – menstruators, most people currently using Anandi pads purchase them because of (1) their increased comfort (e.g., softer top layer), and (2) their lack of harmful chemicals (they are certified rash-free¹⁶¹) which avoids rashes and infections¹⁶². As a testimony of high satisfaction by those who use Anandi pads, the Net Promoter Score (NPS)¹⁶³ of Anandi is 59, while P&G’s – the leader on the Indian sanitary pads market – is 31¹⁶⁴.

Aakar Innovations offers three categories of products, to reach all types of consumers and leverage the higher willingness and ability to pay of their environmentally conscious urban counterparts. First, premium Anandi ultra-thin pads in cardboard boxes, sold through e-commerce to these middle- and high-income urban consumers, who are willing to pay more for cleaner products. Second, the company plans to launch the same ultra-thin pads in retail under the Anandi Athletic brand (with less premium packaging) to reach the mass market. Third, Aakar Innovations sells fluffy pads (i.e., thicker pads which absorbent core is not compressed) under the Anandi Eco+ brand to partners for free distribution to lower-income menstruators (e.g., the United Nations, which selected Aakar’s Anandi Eco+ pads for a multiyear supply partnership).

¹⁵⁸ Muruganatham Arunachalam is an Indian entrepreneur who became famous by inventing a low-cost and small-scale sanitary pad manufacturing machine. Known as “Pad Man”, he contributed to raise awareness on menstrual health through the important mediatic coverage of his invention.

¹⁵⁹ Government of India (2018)

¹⁶⁰ Mahesh P. and Mehotra A., (2021), “Menstrual products and their disposal”.

¹⁶¹ Anandi pads are certified rash-free by the cytotoxicity testing standard ISO-10993 (5&10) that guarantees that components are not toxic for human cells.

¹⁶² As verified by ISO 17088.

¹⁶³ The NPS is a market research metric asking respondents to rate the likelihood that they would recommend a product or service to a friend or colleague. Bain & Company (the creators of NPS) note that a good NP is 0 and above. Above 50 is excellent and above 80 is world class

¹⁶⁴ Comparably (2022), “Procter & Gamble is ranked #92 in global top 100 brands”.

The company's pads are designed to be “just enough” of what menstruators need, to reduce the cost of raw materials per pad; whose prices are still twice as expensive compared to regular disposable ones. The bio non-woven top layer of Aakar Innovation's pads is 3.6 times more expensive than non-woven layers traditionally used in disposables; 1.9 times for the bioplastic back layer, 1.9 times for the SAP middle layer, and 1.4 times for the packaging. To compensate for these higher costs, Aakar Innovations optimized the absorption of its pads, to only include what menstruators really need physiologically. Since the maximum amount of blood on a heavy flow day is 45ml for 88% of menstruators¹⁶⁵, and pads need to be changed every four to six hours, each Aakar Innovations pad only has to absorb a maximum of 15-20ml at once (while some pads on the market can absorb up to 90ml). Another strategy of Aakar Innovations to limit costs is to have only one packaging design for all its premium SKUs, differentiated only by the final closing sticker that indicates the type of pads available in each box.

Business model: Aakar Innovations is a technology-based company, now a pioneer of industrial processes and natural raw materials for sanitary pads

Through over a decade of operations, Aakar Innovations has continuously innovated its production processes and materials, to offer compostable pads free from harmful chemicals at an affordable price. The company has so far collaborated with manufacturing partners to develop several production innovations. For instance, it worked with a supplier to develop a compostable alternative for the pad's top layer, through a technology now unique in the world, and is currently working on another innovation that could reduce costs of the non-woven material by two thirds. Another example is Anandi's cellulose-based bio-SAP, which is unique in the industry and an alternative to chemical-based SAP used by commercial manufacturers. From early 2023, Aakar Innovations will start producing in-house with a new machine optimized for these innovative materials.

The company is also working on new ways to source raw materials for the pulp, which, as of 2023, is mostly pinewood cellulose from the United States and Canada. In a context of rising prices (from 50 INR (0.6 USD) per kilogram in 2019 to 130-150 INR (1.8 USD) in 2023) and the push for relocation by governments and companies, Aakar Innovations has developed a new industrial process allowing them to create an absorbent core from several plant-based materials, all available in South Asia and Africa: Banana stems, bagasse, jute, and water hyacinths. These materials are particularly interesting since they are usually waste from existing plantations (e.g., banana stems and bagasse) or can be sourced for free (e.g., water hyacinths); are available in large quantities without large competing usage (e.g., sugar cane, from which bagasse is made, is the most produced crop globally in volume¹⁶⁶); and concentrated in certain locations (e.g., large banana or sugarcane plantations). This proprietary process would allow the company to use locally-sourced pulp at around half the cost of current alternatives, while also saving on transportation costs in the case of local production. The next step is to confirm the potential of this innovation through an industrial pilot.

Another key learning of Aakar Innovations is its transition to centralized units from decentralized production, through semi-manual machines run by local women. The rationale behind decentralization was to increase access to pads in rural areas, while also employing underserved women – a win-win situation. For example, the [New Light](#) NGO in Kolkata, where one of the early Aakar Innovations decentralized units is still running, specifically employs sex workers. However, on top of having a less consistent look, locally produced pads usually present quality issues due to low standardization (e.g., worker-related issues, lack of glue because of manual application, sealing issues, etc.), while facing financial sustainability challenges. For Jaydeep Mandal, “*machines producing less than 100 pads per minute can no longer be cost-effective compared to centralized production*”, notably because of the lack of economies of scale on raw materials. As a result, since 2020, Aakar Innovations has moved to a centralized production model; while still supporting the 10 or so remaining local production units with raw materials and technical assistance and selling automatized machines on request. They have kept women's employment as a focus, with most workers at the new, centralized production facilities being women.

¹⁶⁵ Center for Menstrual Health and Ovulation (2017), “Very heavy menstrual flow”.

¹⁶⁶ Statista (2021), “Production volume of the most produced food commodities worldwide in 2021, by product”.

Scale: Aakar Innovations is looking to expand its presence by combining B2B and B2C sales channels

Historically, Aakar Innovations has focused on environmentally conscious stakeholders, through e-commerce and organizations willing to donate pads while limiting waste generation. It is also increasingly selling to Indian offices of tech companies (who see this as a way to improve the work environment while reducing their environmental impact), with the objective of leveraging their employees as early adopters and to create word of mouth. To go beyond these limited targets, the company is planning to distribute Anandi Athletic pads through organized retail, leveraging health and comfort – rather than environmental sustainability – as key messages.

Aakar Innovations also had a systemic impact on the entire sector by helping develop the certification for compostable pads. Many brands make unsubstantiated claims or use ambiguous wording (e.g., “natural”, “environmentally friendly”, or “organic”) to create the illusion that their pads are compostable. To combat this, Aakar Innovations became part of the advisory committee of the Bureau of Indian Standards (BIS) and helped to redesign the quality standards for disposable pads. BIS notably adopted the testing method used by Aakar Innovations for its Anandi Pads¹⁶⁷ as the standard for compostable pads in India (and for the first ones worldwide). This method has also been adopted in Nepal and is under discussion in other countries.

Sources

Interviews with Jaydeep Mandal, New Light, and Kishalay Foundation and field visits (2023)

[Aakar Innovations' website](#)

Contact

Jaydeep Mandal, Founder and MD of Aakar Innovations - jaydeep@aakarinnovations.com

¹⁶⁷ Aakar Innovations uses the ISO-17088, an international testing method for biomaterials that was used for the first time for sanitary pads on their Anandi pads.



Credit: AFRIpads



CASE STUDY: AFRIPADS

Background information

- Company/brand: AFRIpads (name of the company and institutional brand targeted at NGOs and development agencies), So Sure (commercial brand)
- Type of organization: Social enterprise
- Product portfolio: Reusable pads (three sizes: Super Maxi Pad, Maxi Pad, Mini Pad) and underwear adapted to the use of reusable pads
- MHH product prices: A pack of two So Sure maxi reusable pads is sold for 6,300 UGX (1.7 USD) to retailers and between 7,300 and 8,500 (2-2.3 USD) to consumers, depending on the number of intermediaries¹⁶⁸
- Main countries of operation: Uganda; institutional distribution mostly in Uganda, South Sudan, and DR Congo
- Scale (volume/year, 2022): Two million pads

¹⁶⁸ Retail prices can largely vary since there is no maximum retail price in Uganda.

General description

AFRIPads started in 2008 to produce and sell reusable pads in rural Uganda, after the founders, Sophia and Paul Grinvalds, experienced firsthand the lack of commercial MHH solutions in these areas. Their initial idea was to set up decentralized production units that would employ local women in addition to solving menstruators' issues. However, local production proved challenging in terms of quality control. Further, the menstruators' limited ability to pay for the product in rural areas, combined with limited interest from retailers to take on this completely new product, pushed AFRIPads to rethink their commercialization model. They realized that the institutional market was keen on reusable pads as a long-term solution that is well adapted to refugee camps and practical for schools, where one distribution could cover a full year's needs.



AFRIPads product demo. Credit: AFRIPads

Fast forward a few years, AFRIPads now has a centralized rural production unit with a production capacity of over 30,000 pads per day. 88% of their products are sold to humanitarian and development organizations under the AFRIPads brand. To date, more than 200 institutional donors have bought their products, including UNICEF, Oxfam, and the Canadian Red Cross. AFRIPads also owns a retail brand, So Sure, which is sold all over Uganda in retail and is widely recognized by consumers.

Value proposition: AFRIPads' menstruator-centric design leads to high consumer satisfaction rates, and its holistic offer to donors makes it one of the preferred options on the institutional markets

AFRIPads has tested more than 4,000 prototypes of reusable pads to get to the current product design, which their R&D team continues to improve. Additionally, AFRIPads has leveraged consumer satisfaction research to gather insights and act on consumers' feedback. For example, after finding out menstruators struggled to hang their pads when drying, AFRIPads adapted the label to be a "hanging label" i.e., a loop. As a result, research from 2018¹⁶⁹, 2019¹⁷⁰, and 2021¹⁷¹ has shown that 98-99% of consumers who received AFRIPads for free are satisfied or very satisfied with the product. Further testifying to the quality of AFRIPads products, the reusable pads donated can be found in a parallel black market.

The pads¹⁷² - which are technically the same under both the AFRIPads and So Sure brands - are made of an ultra-absorbent core covered by a stay-dry top layer in fleece, which gives the product a soft touch

and allows the top layer to stay dry during menstruation. A bottom layer avoids leaks, and the pads have wings and two buttons to adjust the pad to the width of the panty. The product is easy to wash and menstruators can fully cover their MHH needs with four to six pads for at least one year¹⁷³.



AFRIPads reusable pads. Credit: AFRIPads

169 UNHCR (2018), "Pilot Study Findings on the Provision of Hygiene Kits with Reusable Sanitary Pads".

170 AFRIPads (2019), "School Girl Desired Kit Study Findings".

171 IOM UN Migration (2021), "Piloting reusable sanitary pads in Cabo Delgado, Mozambique: key findings".

172 The product range includes the Super Maxi Pad for heavy flow and consists of a longer pad (34x13cm with a 12cm wingspan) with extra coverage in the back; the Maxi Pad for medium to heavy flow, preferred for daytime (28x8cm with an 18cm wingspan); and the Mini Pad, designed for light flow and young menstruators (23x7.5cm with a 16.5cm wingspan), which is only available to institutional donors for now.

173 Pads can be washed more than 60 times.

On the commercial market, So Sure pads are a big money saver for menstruators, and, while consumers have different use ranges for reusable pads – some use So Sure when they are at home, for light flow days, or only during the night – those who use So Sure reusable pads exclusively recoup their investment in three months compared to disposable pads¹⁷⁴. AFRIPads has gathered anecdotal evidence that the most complex moment on the consumer journey, from awareness to long-term adoption, is first trial. Consumers easily understand the product benefits, and most who have tried it once continue to use it thereafter. A majority of potential consumers are, however, initially reluctant to try reusable pads due to hygiene or comfort concerns, or because of the price barrier. To encourage first trial for its commercial offer, AFRIPads has reduced the investment barrier by selling So Sure in two-pad packs instead of four to six for the institutional market¹⁷⁵.

On the institutional market, AFRIPads has designed a holistic solution to maximize the chances of product adoption in programs sponsored by donors. These programs mostly target emergency settings where consumers do not have access to any other commercial MHH solutions. Donors benefit from:

- A choice between a standard six-pack, a standard four-pack, or a 'schoolgirl kit'. Donors can also build a custom kit by selecting any combination of pads that will suit their – and menstruators' – needs.
- Durable underwear specifically designed by AFRIPads to complement the pads where needed, as, in emergency settings, menstruators do not always have suitable underwear to wear pads. Donors who order underwear get underwear sizing tape to ensure that they can provide the adequate size to menstruators.
- An MHH education toolkit which includes a flip chart package, an information poster, a booklet with MHH education content for menstruators, and evaluation tools. AFRIPads also offers actual training to partners (both in person and online), led by its in-house menstrual health trainer.
- A data collection toolkit to support data-driven decisions in MHH programs, including a 10-step guide on how to plan and execute an MHH data collection and various templates.

Of note, the institutional success of AFRIPads has motivated other companies to follow their lead, which was made easy by institutional buyers sharing AFRIPads' specific product specs as part of their tender criteria. A few Indian and Chinese providers now sell similarly looking products for up to 20-30% cheaper; which AFRIPads' research found was a result of these providers opting for lower-quality, lower-costs materials. One of these copycat products can also be found in retail in Uganda. They had initially copied the visuals of AFRIPads but changed it after AFRIPads fought for its IP and won.

Business model: The AFRIPads business model has ensured continued profitability since 2014

AFRIPads has an optimized production model for their current scale, with a few tools mechanized, but most of the work is still done manually (e.g., cutting the fabric). Since 2018, the average output per worker has doubled thanks to a larger production facility (located in Masaka), adaptations of the production line, and provision of outputs-based worker incentives (e.g., bonuses). AFRIPads has also worked on optimizing costs at every level of its supply chain, with more than 10 suppliers considered for each material. All this has been done while maintaining quality and enabling waste saving: The final quality control only rejects 0.02% of the pads.



Worker sewing in the AFRIPads factory in Masaka. Credit: AFRIPads

¹⁷⁴ Considering the cost of eight Always pads (3,000 UGX (USD 0.8) per pack) versus 7,300 UGX (USD 2) for two So Sure pads, the exact payback is 2.4 months.

¹⁷⁵ So Sure pad packs containing four pads are also available.

To adapt to the high fluctuations of volumes from institutional orders, AFRIPads has also instilled high flexibility in their production capacity, while keeping costs variable where possible. The factory workforce is on a full-time contract, having a guaranteed base pay (also in case of low sales) and a variable component based on the number of pads produced (piece rate), which can fluctuate depending on the sales volume. The factory includes a vast storage space that can keep an equivalent of 500,000 pads' worth of material and 100,000 kits containing four pads each to accommodate emergency orders. This allows AFRIPads to produce at scale while having a competitive advantage for lead times. The factory still has sufficient remaining capacity to further grow its production volume in the coming years. Finally, when institutional demand is low, AFRIPads leverages its otherwise unused capacity to produce their commercial So Sure brand or small orders of AFRIPads for (essentially) schoolchildren, paid for by the donations received through their foundation in the Netherlands.

The AFRIPads financial model hedges raw materials prices fluctuation and currency risks. They have negotiated payment terms with their suppliers which lock in prices for a year without having to pay upfront. They also receive most of their revenues – from institutional buyers – in hard currency, which protects them from exchange-rate risk when committing to procurement expenses in USD.

On the commercial front, the So Sure commercialization model is currently profitable, piggybacking on AFRIPads' overheads and spending little on marketing costs. AFRIPads invested in marketing So Sure intensively between 2014 and 2018. Sales then reached 230,000 packs of pads per year, but marketing costs put pressure on profitability, as they represented more than half of the revenues. In 2019, the management decided to scale down marketing, with So Sure thus relying exclusively on word of mouth and two dedicated staff members supporting the retail network; one focused on the main wholesale market of Kampala, from where pads are shipped throughout Uganda and to neighboring DRC and South Sudan, and the other on Kampala supermarkets. Sales inevitably went down, stabilizing at 65,000-70,000 packs per year, but, overall, So Sure has now become a profitable business line, ready to scale back up sustainably.

Scale

The company's impact on the sector has gone beyond its own sales. They partnered with the Ugandan government to create mandatory standards for reusable pads, that were based on the quality standards AFRIPads apply to their pads, which have been in effect since 2017. As of January 2023, Kenya adopted similar standards. AFRIPads plans to continue this "soft lobbying" role, participating in conferences and discussions around the role of reusable menstrual pads among the suite of products menstruators need.

In 2022, AFRIPads was restructured and the two co-founders left the company to a new CEO. The company ended the year having sold two million pads, profitably.

In the upcoming years, AFRIPads plans to scale up the So Sure brand in Uganda, taking advantage of the country's zero-tax policy on menstrual products, and expand to neighboring countries; a plan delayed so far because of the COVID-19 pandemic. They will also work on long-term deals with institutional buyers. This should enable AFRIPads to use more of their current capacity with the same overheads, thus both serving more menstruators' needs and improving their own economics further.

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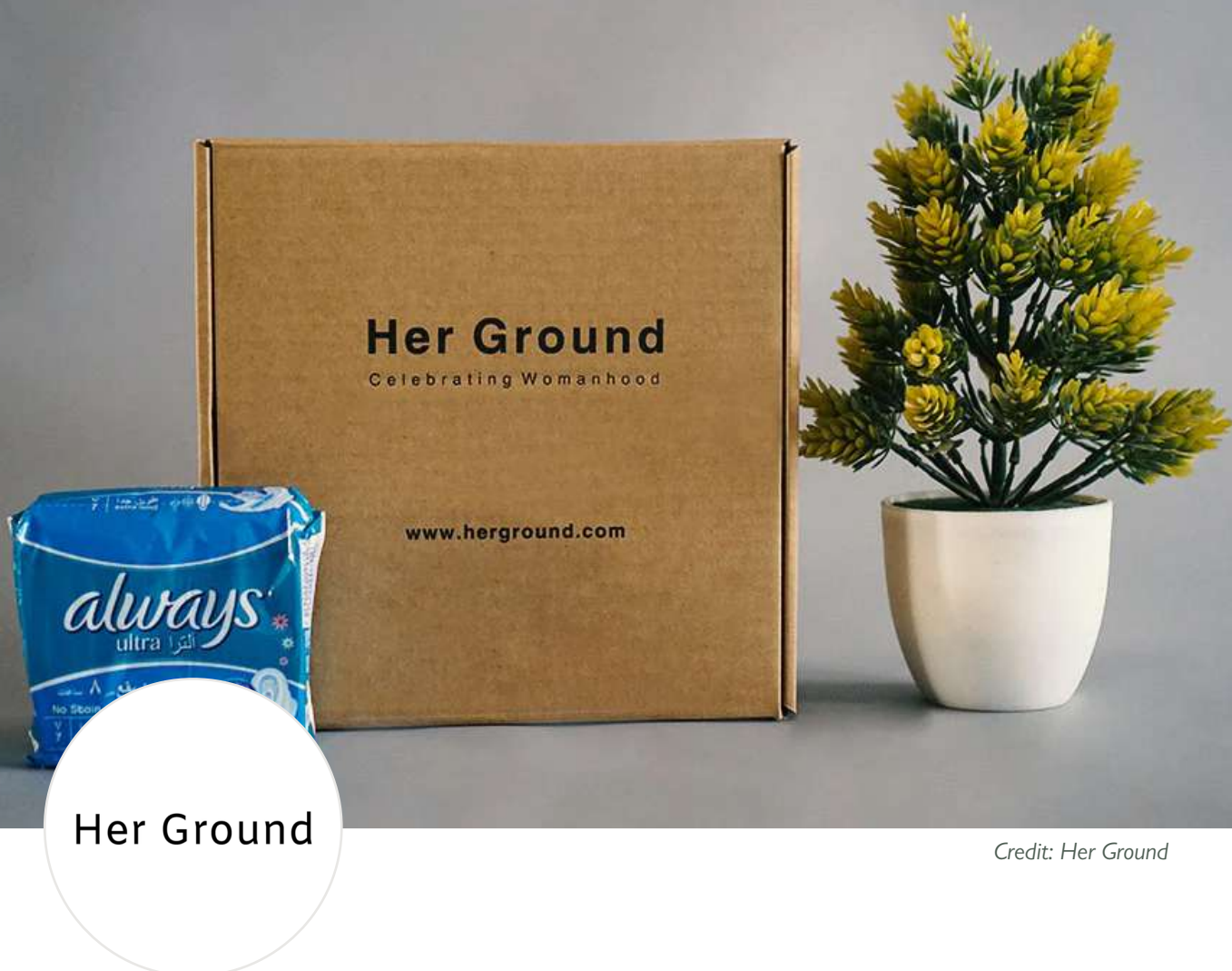
Interviews with AFRIPads management and field visit (2023)

[AFRIPads website](#)

Contact

Joris Boon, CEO - joris@afripads.com

Lowri Davies, Evidence and Partnerships Manager - lowri@afripads.com



Her Ground

Credit: Her Ground

CASE STUDY: HER GROUND

Background information

- Company/brand: Her Ground
- Type of organization: Social enterprise
- Product portfolio: Disposable pads, tampons, panty liners, reusable pads, underwear, hair removing cream, vaginal hygiene products, hand sanitizer, condoms, pregnancy tests
- MHH product prices (consumer prices):
 - Disposable pads: 14 PKR (0.05 USD) to 48 PKR (0.17 USD) per pad depending on the brand and SKU
 - Reusable pads: 0.74 USD per pad (delivery fees are in addition to the given cost and depend on the geographic location of consumers)
 - Disposable pads (Always): 99 PKR (0.37 USD) to 320 PKR (1.19 USD) for seven pads
 - Tampons (Tampax): PKR 1,150 (4.27 USD)
 - Menstrual cup: PKR 1,900 (7 USD)
- Main countries of operation: Pakistan
- Scale (volume/year, 2022): 21,000 packs of disposable pads and 50,000 packs of reusable pads

General description

Her Ground is an online platform selling a wide range of MHH products in Pakistan. It was created in 2017 by Sadaf Naz, who, after working in the pharmaceutical industry for three years, decided to launch her company to facilitate access to these basic products that remain taboo in her country.

Sadaf experienced first-hand the impact that such taboos can have on women's life: unaware of what menstruation was, she thought her first menstruation was terminal cancer and was given cloth without further explanation. She only learned about disposable pads when she was a pharmacy student. She used a Niqab to cover her face when buying them, as she felt she could not be recognized purchasing such products in her town.

Nota bene: The Pakistani government has banned the importation of disposable pads as well as the raw materials required to produce them locally, challenging MHH business' survival and already leading to stock-outs and price increases.

Value proposition: Her Ground offers its consumers a discrete purchasing experience and a quality guarantee in a country where fake products are widespread

Her Ground allows for a discrete, convenient purchasing experience by taking orders from multiple online platforms — website (50% of sales), WhatsApp (25%), Instagram (15%), and phone calls (10%). This approach not only guarantees anonymity but also allows consumers to ask questions on menstruation or other health-related topics. In 2022, 50,000 consumers were using Her Ground services online, among which 30,000 use a subscription service that automatically delivers products to their doorstep every three months.

A range of products is available on the platform, as Her Ground aspires to become a one-stop shop for menstruators that meets their various preferences. Disposable pads are the best seller, constituting 99% of sales. Menstrual cups have convinced approximately 500 consumers, while the platform does not yet sell reusable pads online. As of 2023, Her Ground custom comes mostly from high-income, urban consumers: Although products can be delivered to 130 cities in Pakistan, 70% of sales comes from the largest cities of Lahore, Islamabad, and Karachi. To encourage product adoption in rural, lower-income areas, the company organizes menstrual health education workshops and allocates 10% of its profit to the distribution of products to lower-income menstruators. Her Ground also partners with local NGOs that purchase products and distribute them for free or at subsidized prices. As a result, over half of Her Ground product sales were to consumers in lower-income areas, in 2022.

Another key aspect of Her Ground's value proposition is its quality guarantee: According to Sadaf, a lot of counterfeit products are entering the country illegally and are sold to consumers as genuine, branded products. Purchasing via the Her Ground platform guarantees consumers get the quality they pay for, leading to very few product-related complaints. Out of the 50% of consumers who answered Her Ground's satisfaction survey, 70% evaluate the service as good, 10% as excellent, and the 20% who evaluate it as not good primarily complain about delivery delays, which Her Ground has limited control over.

Business model: Her Ground started by distributing existing disposable pads but is now looking to white label its own reusable products, to ensure higher margins and better coverage of menstruators' needs. Yet, its growth is limited by restrictions on social media marketing

Her Ground started by buying disposable pads directly from brands themselves or their leading distributors. As Sadaf became more interested in reusable products, she decided to white label reusable pads — produced by an in-country partner with raw materials Her Ground procures from China — and menstrual cups from Vietnam, to earn more product margin. Indeed, branded products provide distribution margins of 15-35%, which white labeling allows the company to at least double.

For delivery, Her Ground has managed to negotiate favorable prices (40% of the regular prices) with a leading provider that is not taking any margin on the distribution of parcels, by positioning this partnership as a corporate social responsibility initiative.

Regarding marketing and communication, the company has decided to invest in social media and influencers to make the Her Ground brand known and encourage word of mouth. The company sends free products to influencers so that they can share feedback with their community. Yet, the severe restriction on Pakistani social media prevents Her Ground from fully leveraging this channel; Facebook, for instance, does not allow hashtags that include the words menstruation, vagina, or uterus. For lower-income consumers, the company partners with local NGOs that have access to large networks of menstruators to organize cost-effective BTL activities and distribution. These activities are generally paid for by the NGOs themselves, or international donors; meaning that costs are not incurred by Her Ground, and thus don't affect the business' sustainability. Previously, the company led awareness workshops directly, and appointed community leaders (usually teachers) to sell products to menstruators. This model remained very small scale, with five to seven community leaders each selling on average 100 packs per month.

As of 2023, Her Ground is a small but profitable business with seven million PKR of revenues (26,000 USD). The COVID-19 pandemic was particularly favorable for online sales in 2020, generating a 35% growth compared to 2019.

Scale: In a country with one of the lowest penetration rates of commercial MHH products, and some of the highest taxes, Her Ground growth will require working with other ecosystem players to ensure menstruation becomes a priority for the Government - and menstruators themselves

Her Ground is looking to increasingly focus on reusable products: Sadaf believes this is much more affordable for low-income menstruators and has decided to only sell reusable products to rural areas. She is also looking to develop partnerships with pharmacies to enable a wider penetration of such products. The company is not interested in placing its white label products on larger online marketplaces, like Daraz, as they believe their offer would be lost among other products and would not generate sales; thus, reducing their margin.

A key challenge to growth is the unfavorable regulatory environment. Menstrual hygiene is not a priority for the Pakistani Government, which considers pads as a luxury product. The Government charges 22% import duties on menstrual cups and VAT at a rate of 25% on all menstrual products, while having also banned the importation of disposable pads ; including both finished products and raw material. This systemic issue is one that Her Ground cannot tackle by itself. To unlock growth, Her Ground will look to join forces with other organizations in the sector to reduce the shame associated with menstruation, make the topic more visible at the government level, and jointly increase the penetration of commercial MHH products, which, in 2023, is one of the lowest in the world, at between 17% and 43%, depending on sources.

Sources

Interviews with Sadaf Naz (2022)

[Her Ground website](#)

Contact

herground@gmail.com



Credit: Hystra

Joya
Sanitary
Napkin

CASE STUDY: JOYA

Background information

- Company/brand: SMC Enterprise Limited (SMC Enterprise Ltd) selling the Joya brand
- Type of organization: For-profit
- Product portfolio: Joya disposable sanitary pads, baby diapers, hand wash, and sanitizer, contraceptives (e.g., condoms and oral contraceptives), and nutrition (e.g., oral rehydration salt, flavored saline, electrolyte drink)
- MHH product prices (consumer prices): Joya products are sold between 7.5 BDT (0.07 USD) and 12.7 BDT (0.12 USD) per pad
 - Joya Belt System: BDT 60 BDT (0.58 USD) for eight pads, BDT 35 (0.34 USD) for five pads
 - Joya Wings Regular Flow: BDT 70 (0.68 USD) for eight pads
 - Joya Ultra Comfort: BDT 100 (0.97 USD) for eight pads
 - Joya Extra Heavy Flow: BDT 110 (1.07 USD) for eight pads
 - Joya All Night: BDT 120 (1.17 USD) for eight pads
- Main countries of operation: Bangladesh
- Scale (volume/year, 2021): 31 million packs sold in 2021

General description

Social Marketing Company (SMC) started in 1974 as a USAID-funded family planning project to make “lifesaving” products accessible for billions of people. Since its inception, SMC Enterprise Ltd has become one of the largest partners of the Government of Bangladesh in health, nutrition, and family planning; providing products like oral rehydration salts for diarrhea treatment, contraceptives, and micronutrient powder to low-income households.

In 2013, SMC launched its own sanitary pad brand, Joya. The brand claims to have gained around a 31% market share in fewer than 10 years. Joya currently represents approximately 15% of the revenue of SMC LTD’s portfolio, an entity created in 2014 to handle the fast-growing for-profit activities separately from the charitable activities.

Value proposition: Joya has developed an affordable disposable product, sold at 0.07 USD per pad, adapted to low-income menstruators’ needs

SMC had been serving low-income consumers for almost 50 years when it decided to introduce Joya. Yet, SMC still started its product development phase by running consumer research to understand menstruators’ pain points. Recognizing that pads were unlikely to become as popular as in other countries - because most Bangladeshi menstruators in rural areas and poor socioeconomic groups do not wear underwear - they introduced a ‘belt pad’ by providing an elastic that can easily be attached to rectangular pads and worn around the waist, to secure the pad in place without the need for underwear. In 2023, these products represent 70% of Joya’s pad sales. They were also the first to introduce scented pads on the Bangladeshi market.



Illustration of the Joya belt system. Credit: Joya

Beyond product design, SMC was also innovative in its branding approach: Showing a mother and daughter on the packaging was a first, and signaled that Joya wanted to enlist older, potentially more reluctant menstruators to help provide pads to the younger generation. The brand focused its marketing messages on the concrete benefits menstruators can derive when using Joya, including reduced school or work absenteeism (leading to loss of salary), as well as reduced infections that can be caused by using cloth.

Finally, Joya segmented its potential market to cater to various abilities to pay, even cross-subsidizing the most affordable pads:

- Joya’s most affordable products are 10-20% cheaper than the market leader thanks to a no-frills design. SMC is doing its own R&D to reduce costs to the minimum, while preserving product quality; for instance, by reducing the thickness of the packaging. Furthermore, SMC was also the first to introduce smaller packs of five units, which account for 30% of their sales; intended to trigger first usage and cater to low-income consumers who only purchase disposable pads occasionally.
- Joya also markets more premium products with antibacterial properties. These account for 10% of Joya’s sales, 15% of its profit, and contribute to maintaining the brand’s aspirational image (including to retailers that get higher margins on these products).

Business model: SMC leveraged its distribution network and brand trust to ensure product affordability and widespread access, including in rural areas

Building on the existing sales infrastructure of SMC, which was distributing more than 30 brands and 88 SKUs, Joya managed to deploy large-scale, highly effective sales. 40% of operations are managed in-house, to control distribution efficiency and leverage the existing network of 200 SMC sales agents selling directly to 110,000 pharmacies and 12,000 wholesalers. Joya has largely optimized route plans to supply these outlets in a coordinated way, with approximately 50 visits per day per agent. Smart rotation models are employed between

two teams that sell different products (apart from the best-sellers that are sold by both teams), to maximize the frequency of visits to retailers and incentives to boost teams' performance. In parallel, 360 distributors are selling to approximately 550,000 retail stores. Joya offers competitive margins to retailers, with a 20% markup as the baseline, compared to 13-22% for competitive products, and additional discounts can lead up to a 35% markup. Finally, SMC can also count on a network of 10,000 health practitioners who are trained by the company via its Blue Star Program. This unique network, combined with a widely trusted brand, has proven particularly valuable in rural settings which generate a substantial number of sales.

SMC's scale is also a key asset for production: Initially outsourcing pad production to an experienced factory, SMC soon internalized it to reduce production costs by approximately 10-15%. Indeed, the company can take advantage of its large volumes and complementary product offers (notably diapers that use the same raw materials) to negotiate lower raw material prices with suppliers. In-house production also allows SMC to optimize its product (generating up to 25% savings on raw materials, which still represent 30-40% of the retail price) and adapt its machines that can produce 400 pads per minute.

Joya manages to limit its marketing spend to 10% of total sales. A quarter of this budget goes to BTL promotional activities that reach 600,000 people in schools, colleges, madrasa, and garment factories. These programs are generally run by doctors, in partnership with NGOs or community-based organizations (CBOs), and include free samples, to change behaviors of young menstruators and convert mothers and elder sisters into pad advocates. The rest of the marketing budget is spent on above-the-line campaigns (on e.g., TV, radio, social media, and in the press) to ensure high brand awareness among its target population. These campaigns have proved to be effective, with 94% brand awareness according to their latest consumer survey¹⁷⁶.

Thanks to these unique assets and its attractive value proposition to menstruators, Joya has been very successful in growing its business, with 50-60% year-on-year (YoY) growth in the past couple of years. Revenues were around 13 million USD in 2021 for 31 million packs of pads sold, and around 20 million USD in 2022.

Scale: Joya has been instrumental in the growth of the Bangladeshi MHH market, by supporting the implementation of a favorable regulatory environment and stimulating competition, leading to lower prices and better choices for menstruators

As an active member of the Bangladeshi hygiene producers' association, SMC contributed to the advocacy effort aimed at lowering taxes on menstrual hygiene products. This work has recently been rewarded as the Government of Bangladesh decided to remove VAT on menstrual hygiene products and import tax on several raw materials, while keeping high import duty on international brands. The regulatory framework has also been critical in keeping cheap and low-quality products out of the market, via the strong enforcement of quality standards. Indeed, any new product must receive approval from the Bangladesh Standards and Testing Institution before being launched, and some random checks of products are also done by the Bangladeshi Government to ensure continued quality.

Beyond public lobbying, Joya has played a central role in market growth: Most competitors have copied its product format and pack sizes. Joya's prices have pushed other leading brands to lower their prices, and this competitive dynamic is likely to continue in the coming years, helping reduce pad prices to a minimum - and ultimately helping all menstruators better cover their menstrual needs. In many ways, Joya has been instrumental in the development of the Bangladeshi MHH market, where the penetration of sanitary pads has been growing from circa. 10% in 2014 to an estimated 25-30% in 2023.

Sources

Interviews with Joya's management team and field visit (2022)

[SMC Enterprise Ltd website](#)

Contact

Khandhaker Shamim Rahman, General Manager, Marketing - shamim.rahman@smc-bd.org

Mizanur Rahman, Head of Hygiene Products - mizanur.r@smc-bd.org

¹⁷⁶ Joya (unpublished) internal research.



Credit: Hystra



CASE STUDY: NIA

Background information

- Company/brand: ZanaAfrica selling the NIA brand
- Type of organization: Social enterprise
- Product portfolio: Disposable pads, reusable panties
- MHH product prices (consumer prices): NIA products are sold between eight KES (0.06 USD) and 9.5 KES (0.07 USD) per pad
 - 35 KES (0.28 USD) for four pads
 - 65 KES (0.53 USD) for eight pads
 - 78 KES (0.63 USD) for 10 pads
 - 400 KES (3.21 USD) for one reusable panty (panty, two liners, four absorbent layers)
- Main countries of operation: Kenya
- Scale (volume/year, 2021): 130,000 disposable packs sold in 2021; 500,000 in 2022

General description

Created in 2008 by Megan Mukuria, ZanaAfrica's objective is to equip Kenyan menstruators with sanitary pads and SRHR education.

Over the past 14 years, ZanaAfrica has been developing ideas and iterating on multiple fronts: It prototyped and developed NIA, a brand of high-quality disposable pads; tested multiple distribution channels; patented technical innovations to reduce the cost and environmental impact of pads; and created social and behavior change content via comics and magazines, building on Kenyans' day to day lives. The positive impact of ZanaAfrica on menstruators' life skills (e.g., reproductive health knowledge, self-confidence, and change in social norms around marriage and sex), as well as on their MHH management, has been demonstrated by a two-year randomized controlled trial¹⁷⁷.

COVID-19 marked a halt in the growth of the company, but in 2022 the company returned to pre-COVID performance levels, with around 500,000 packs of pads sold.

Value proposition: To compete against Always, NIA positions itself as a better-quality product at a slightly lower price

While Kenya is one of the most dynamic and competitive menstrual markets (with a 14% YoY growth¹⁷⁸), most of the available disposable pads are of poor quality. According to ZanaAfrica's research, 95% of menstruators report burning and chafing when using pads, which can result in increased urinary and reproductive tract infections; which, in turn, makes menstruators more susceptible to sexually transmitted diseases¹⁷⁹. In 2019, dissatisfied consumers started making it a public issue by raising their concerns on social media, leading menstruators to pay greater attention to the quality of their pads.

Long before this public outcry in 2019, NIA had adopted a unique positioning in the market: While new market entrants often challenge incumbents by offering similar products at significant discounts (a strategy referred to as "me-too"), NIA decided to improve the quality of its products while offering only slightly lower prices (65 KES (0.53 USD) for eight pads versus 70 KES (0.58 USD) for Always' cheapest eight-pads pack). Menstruators helped co-design the product to deliver significantly greater value:

- Higher-quality pads, with differentiating features including a soft top layer to avoid chafing and burning, strong glue so it won't stop holding the pad when walking long distances, and longer wings to ensure stickiness to underwear.
- A cost-effective solution, thanks to a more than eight hour duration, which enables a higher coverage of menstrual needs compared to competing brands for the same budget; while also removing the need to change the pad during the day, when a toilet is not available.

Contrary to what most brands do, NIA has only one type of disposable product (available in three pack sizes): This facilitates logistics and stock management and, most importantly, makes menstruators' lives easier, as they only have to purchase one type of product for both day and night. NIA also considered adding reusable solutions to its market-based portfolio: But, given the relatively high prices of these products and low awareness and demand, decided to focus first on what "women want", to build a brand that could later expand with a larger product portfolio¹⁸⁰.

Indeed, NIA managed to create a brand that truly resonates with consumers: The three-letter brand and single product are easy to remember and recommend. In addition, its distinctive yet simple visual identity and Afro-centric branding allow it to compete with multinational products and not appear as a product "for the poor". The sincerity of the brand is supported by the work of its charitable arm, that develops a health ecosystem around menstruators, to tackle broader challenges like gender-based violence and early pregnancy.

NIA's strategy relies on the principle that "once you have tried NIA, there is no coming back". It can be slow to take off but is a longer lasting one: while price advantages are arguably short-lived, a satisfactory consumer experience lasts. Triggering first trial is therefore critical; to do so, the brand has introduced a smaller four-pad pack and is looking to develop a sampling strategy, to enable consumers to test before buying.

¹⁷⁷ 140 elementary school-aged menstruators, 45 per arm, were randomly assigned to one of four study arms: (1) control; (2) sanitary pad distribution; (3) SRHR education; or (4) both sanitary pad distribution and SRHR education. There were increased positive SRHR attitudes for menstruators in arm three and arm four. There was also an increase in SRHR knowledge, equality of gender norms, and self-efficacy in arms three and four. See more at: Austrian, K., et al (2021), "Effects of sanitary pad distribution and reproductive health education on upper primary school attendance and reproductive health knowledge and attitudes in Kenya: a cluster randomized controlled trial".

¹⁷⁸ Euromonitor 2022, "Sanitary Protection in Kenya" (referring to 2021).

¹⁷⁹ ZanaAfrica's internal (unpublished) research.

¹⁸⁰ NIA already sells reusable pads and panties to NGOs that had requested this product, but this represents a very low volume and is not available in retail.

Business model: NIA has assembled the ingredients for success by (1) developing a hybrid (for profit and charitable) model that leverages word of mouth and lowers marketing costs; and (2) developing a solution to reduce production costs

Rather than investing large amounts of money in advertisement and promotion like key players, NIA can leverage its hybrid for-profit/charitable model as a unique asset to make NIA products known and recommended among its target market, at a low cost.

By strongly coordinating its education work with its marketing activities in given geographical areas, NIA has the potential to deliver a holistic and mutually reinforcing solution to menstruators; offering both quality products and the education they need about their menstrual rights. Such coordination can happen at different touchpoints:

- **Educational curriculum:** The Government of Kenya has just signed a memorandum of understanding with ZanaAfrica, to add their Kenyan-centered training on MHH and gender issues to the national school curriculum, which will be NIA-branded. This partnership will benefit 250,000 adolescents in 2023, scaling to all 12.5 million by 2028. Such action will not only support gender empowerment but is also a unique platform for NIA to be known by menstruators at an age when they select their first menstrual hygiene products — which they tend to be loyal to, thereafter.
- **Community work:** In addition to its work in schools, the non-profit arm of ZanaAfrica is also supporting around 30 CBOs to inform communities about health and gender issues, reaching 45,000 children in 2022. As part of this program, low-income menstruators receive free NIA pads for six to 12 months. Menstruators can also find them in some nearby retail stores, thanks to partnerships with distributors. Some CBOs are also selling NIA pads to members of their community, which helps them generate revenue while sustaining their menstrual health impact.
- **Dedicated hotline:** NIA is promoting others' hotlines with different health services — in early 2023, this is being integrated into a single toll-free NIA-branded number — available via text message, phone call, and WhatsApp chatbot. This allows NIA to become the go-to trusted resource for answers to health questions and referrals to care, while also reinforcing its credibility. Partnerships with local health clinics that NIA can refer menstruators to also enables the brand to be recommended by health practitioners, who are trusted sources of advice.

All these touchpoints with menstruators are unique opportunities to create an informed conversation about MHH, demonstrate the value of NIA pads, and leverage the power of word of mouth.

NIA also reduced production costs by identifying large sources of quality raw material waste it could readily convert. Although this is not implemented yet, because NIA production is currently outsourced to China, such recycling could not only reduce the environmental impact of disposable pads but also help reduce product cost significantly, as raw materials represent the largest cost for disposable pads. At scale, this innovation could be revolutionary, as there are identified sources with multi-ton volumes.

Scale: Moving beyond 'just' the provision of quality pads and winning over a community at a time

NIA's core marketing strategy focuses on word of mouth and BTL activities, which are small-scale and local by nature. As a result, the growth strategy of NIA should aim at geographically concentrating its for-profit and charity efforts to achieve success in each area, before moving to new zones. This strategy is also supported by NIA's theory of change, which, unlike other key players', states that providing quality pads is not enough to keep young menstruators in school. Instead, this requires deeper, more regular interactions on women's rights, to change social norms and address the root causes of children dropping out of school.

Prioritizing depth versus breadth also implies leveraging a trusted brand to expand its portfolio beyond pads. Offering more feminine and hygiene products will not only add revenues to make the company sustainable, but also bring more of these much-needed resources to low-income menstruators.

Sources

[ZanaAfrica website](#)

[Megan White wa Mukuria's Ashoka profile](#)

Interviews with Megan White wa Mukuria and field visit (2022)

Contact

Megan White wa Mukuria, Founder and CEO, megan@zanaafrica.com



Credit: Real Relief

CASE STUDY: SAFEPAD

Background information

- Company/brand: Real Relief selling the Safepad brand
- Type of organization: Social enterprise
- Product portfolio: Reusable antibacterial pads, antibacterial towels, mosquito nets
- MHH product prices (consumer prices):
 - In India: 245 INR (3 USD) (free on board) for four pads
 - In Bangladesh: 190 BDT (1.8 USD) for two pads, 360 BDT (3.5 USD) for four pads
 - In South Africa: 279 ZAR (16.3 USD) for four pads
- Main countries of operation: Bangladesh, Denmark (HQ), India
- Scale (volume/year): One million pads (2021), two million pads (2022)

General description

Real Relief is a Danish company that specializes in the design, manufacturing, and supply of durable, life-saving emergency relief items including mosquito nets, anti-bacterial towels, and reusable pads under the trademarked name Safepad. The company uses technologies like anti-bacterial treatment for its pads to improve the experience of low-income populations in the Global South.

Value proposition: Safepad is one of the only reusable pads with antibacterial properties, targeted as a clear improvement for low-income menstruators using cloth

The Safepad reusable pad is made of several layers of polyester, including a “non-slip” back layer, wings, and two buttons to adjust the pad to the width of the panty. It comes in two sizes: One day pad (29cm by 20cm) that can absorb 10ml of menstrual fluid, and one night pad (34cm by 20cm), which absorbs 15ml. Real Relief applies a publicly available chemical treatment that leaves a positively charged layer on the top layer of the reusable pad to achieve an anti-microbial efficacy between 99.31% and 99.99% against fungus, bacteria, and yeast¹⁸¹. Such treatment not only prevents the rashes and infections that menstruators usually experience while using homemade solutions, but also means that Safepad pads do not require clean water or soap, which can be hard to find in some low-income settings¹⁸².



Safepads pads. Credit: Real Relief

Over the past few years, Real Relief clients have conducted several quality studies with 50-200 respondents in various setups (e.g., refugee camps and schools). The satisfaction rate of four studies conducted between 2019 and 2022 ranges between 61% and 100%. For one study conducted in Nepal by CARE, with 182 respondents, 46% of menstruators expressed that the Safepads pads can be used for four to six hours during heavy flows, whilst 33% of recipients are able to use them for longer. As for light flows, 46% can use the Safepads pads for eight to 12 hours. According to the surveys of Real Relief’s consumers, a pack of four reusable pads is therefore sufficient to cover a full menstruation.

Safepad pads represent a true improvement versus homemade solutions, which explains why Real Relief targets primarily low-income menstruators still using cloth. In 2023, 92% of Real Relief revenues are from institutional orders including UNHCR, UNICEF, and international NGOs, who donate the product to low-income menstruators who cannot afford to purchase menstrual hygiene products.

The rest of Safepad sales come from commercial sources, either from:

- B2B clients interested in the anti-bacterial property of the fabric and purchasing it to incorporate into high-end menstrual products like menstruation panties (sold at >20 USD)
- E-commerce websites in Bangladesh and South Africa, generating between 100 and 200 orders per month, on average. Consumers are mainly from urban areas, with over 90% of the Bangladeshi sales coming from Dhaka and Chittagong.

For this latter B2C market, qualitative insights suggest that most of these urban consumers use disposable pads, and want to switch to reusable solutions either for environmental or financial reasons. Each Safepad pad can be used at least 100 times, i.e., 0.009 USD per use in Bangladesh (where the retail price is 0.9 USD per pad); making it eight to 10 times more economical than alternative, disposable options. Yet, the upfront investment for reusable pads remains a challenge for most low-income consumers. The Bangladesh Safepad team introduced a smaller two-pad pack at 1.8 USD retail price to reduce this affordability barrier and to encourage product trial.

While limited investments have been made to push Safepad commercially, which might explain the low volumes generated via this channel, the team recognizes that the share of consumers ready to return to reusable menstrual products after having experienced the convenience of disposable pads is likely to remain marginal compared to institutional orders.

¹⁸¹ The antimicrobial technology is based on a treatment that leaves a positively charged layer on the fabric. This layer will attract and kill the negatively charged microbes, like bacteria and fungi. The treatment does not contain any harmful chemicals.

¹⁸² Although qualitative interviews indicate that most menstruators still use some soap and/or water, as they help to remove stains.

Business model: Leveraging existing textile capabilities results in production costs as low as 0.5 USD per pad

Given the small size of the current market for reusable pads and the availability of existing textile capabilities, the most cost-efficient production strategy is to outsource the production to specialized Asian garment factories. Countries like India and Bangladesh have access to local raw material (yarn), skilled workforces, and the multi-million machines required to transform the yarn into textile and laser cut it. By leveraging such infrastructure, Real Relief manages to have production costs of approximately 0.5 USD per pad, with over 60% of this cost coming from raw materials, and the rest being evenly split between labor and fixed costs. Interestingly, the antibacterial treatment at the core of Safepad's value proposition costs only 0.02 USD per pad. The use of recycled plastic to reduce the environmental footprint of the polyester used in the pad, as recently experimented by Real Relief, would, however, increase the cost of raw material by 20-30%.

Real Relief's role is to aggregate the demand of multiple international institutions that want to bulk-order pads, putting in competition various Indian suppliers to get the lowest prices. They also ensure quality standards by training factory workers and providing technical support to each production unit.

There are two cases where exporting cut fabric and assembling locally can be an attractive option for Real Relief:

- When importation taxes for finished goods are very high (e.g., in Bangladesh, the taxes represent more than twice the price of the pad), Real Relief conducts assembly manually, even in large-scale production units. A sewing machine represents less than 1,000 USD of investment. While the local workforce in the given country might be less efficient than Real Relief's main unit's Bangladeshi workers (who can each produce up to 500 pads per hour), this remains a cost-effective solution, if the extra labor cost remains below the avoided taxes.
- When institutional clients want to support livelihoods via their project, as a secondary objective worth the corresponding higher costs. For instance, UNCHR delivers training to Rohingya refugees in Bangladeshi camps to provide them with work skills that can open new job opportunities, despite their low output (approximately 10 pads per hour).

In such circumstances, the laser cutting of pads should still happen at the central level as it significantly reduces product waste compared to other methods (15% waste versus 40% for hand-made cut) and ensures product standardization.

Scale: Real Relief is looking to diversify its portfolio and work with retail partners to commercialize its product

Real Relief is one of the largest reusable pads players, but remains relatively small in the MHH market and depends on a few large institutional clients.

To scale up and diversify its activities, Safepad is expanding its product range by also starting to offer panties, labia pads, and post-partum pads. To accelerate its growth, Safepad would need to invest more significantly in the creation of a retail market. In Bangladesh, the team is looking to promote more strongly the product on the Daraz e-commerce website, as well as to recruit ambassadors in rural communities to sell the product in their area, while generating small additional revenues. The company will probably require a conjunction of multiple factors to be successful at scale:

- A price drop or subsidy to make the product affordable to low-income menstruators using homemade solutions, who do not have a budget for their MHH needs.
- A change in regulation to ensure there is no tax on imported finished goods, or at least on laser-cut textiles.
- The identification of distribution partners (e.g., networks of pharmacies, community health workers, etc.) who would be willing to add reusable pads to their portfolio and proactively and transparently explain the benefits of such products to the people they serve.

Sources

[Real Relief website](#)

Interviews with Real Relief's management and field visit interviews (2023)

Contact

Trine Sig, Managing Director, Real Relief - ts@realreliefway.com

Tahmid Kamal Chowdhury, CEO, Safepad Bangladesh - tahmidkchowdhury@gmail.com



Credits: Saral Designs (first picture); Hystra (second and third pictures)

CASE STUDY: SARAL DESIGNS

Background information

- Company/brand: Saral Designs
- Type of organization: Social enterprise
- Product portfolio: Disposable sanitary pads machines (from semi-manual to fully automatic), other hygiene products machines (diapers, maternity pads, pain patches, masks), special purpose machines (on-demand)
- MHH product prices (consumer prices): 5.6 to 7.5 INR per pad (0.05 to 0.09 USD) depending on entrepreneurs
- Main countries of operation: India (70% of machines sales)
- Scale (volume/year, 2022): 7.66 million pads produced¹⁸³

¹⁸³ Saral Designs follows up with its clients monthly regarding their production of pads, and aggregates the data. Note that this number reflects the number of pads produced, not the sales.

General description

Saral Designs was created in 2015 by Suhani Mohan and Kartik Mehta, two Indian Institutes of Technology alumni. They observed that decentralized pad manufacturing machines - made popular by the “Pad Man” story and movie¹⁸⁴ - were producing poor quality pads (e.g., having only one layer of absorbent and no wings) and were not commercially viable (e.g., pads were being sold at 3.5 INR (0.04 USD) while costing 5 INR (0.06 USD) when integrating the labor costs). They decided to leverage their technical background to improve these machines and increase access to sanitary pads for low-income consumers.

They developed the Swachh machine, a small-scale sanitary pads manufacturing unit to produce and sell quality disposable pads. Initially operating as a commercial pad brand, they rapidly received interest from NGOs and local-level companies to purchase their machine and transitioned to a machine manufacturing business. The company focuses on areas with limited access to sanitary pads i.e., rural areas, tier two, and tier three cities¹⁸⁵. Saral Designs now offers several types of machines (producing two to 100 pads per minute), procures raw materials for its clients, and develops special-purpose machines on-demand.

Saral Designs has sold more than 75 machines to date, resulting in the production of 7.66 million pads annually.

Value proposition: Saral Designs offers a holistic solution to last-mile entrepreneurs who can leverage their marketing and distribution experiences to sell a new product

Among pad machine manufacturers, Saral Designs is often recognized for the quality of its machines and pads. To reduce costs without compromising on quality, the company optimized two key areas:

- The pad design, by a) using only one color and not including blue strips like other players, and b) using one release paper for the entire pad, instead of several for the back layer and wings.
- The manufacturing process, by automatizing production and minimizing the number of steps; for example, by automatically sealing the top and back sheets, and using more affordable but still quality components.

Saral Designs’ machines manufacture mostly ultra-thin pads, which not only fit consumers’ aspirations but also help reduce transportation costs for raw materials; that are cheaper for ultra-thin pads, due to their lower volumes in comparison to fluffy pads. Entrepreneurs can thus reach a 2.97 INR (0.036 USD) production cost per pad, for the automatic machines producing 100 pads per minute.

In addition to selling machines to entrepreneurs, Saral Designs offers a “business in a box” solution to maximize the chances of success of their new activity:

- The several types of machines accommodate different entrepreneurs’ budgets and market sizes, and can be adapted for specific requirements (e.g., pad shape).
- Sales teams advise entrepreneurs on business creation (e.g., working capital required before breaking even) and provide a toolbox for marketing and distribution (e.g., awareness curriculums and branding materials in different languages).
- Entrepreneurs can buy quality raw materials directly from suggested suppliers or through Saral Designs, which helps small companies group orders and unlock bulk prices. For manual and semi-automatic machines, Saral Designs provides pre-processed raw materials to guarantee quality.
- Saral Designs’ engineers ensure a responsive, free aftersales service (except for transportation) and check monthly on entrepreneurs to support them in their daily challenges.

Saral Designs emphasizes understanding a prospect’s needs before selling a machine. To maximize the success of its machine buyers, the company sometimes advises entrepreneurs with less budget or experience to start a procurement model (buying from existing entrepreneurs), to build a distribution network and gather experience. This helps new entrepreneurs create a market for their product while supporting existing entrepreneurs in increasing their sales. As a result, out of the 77 machines sold, only two have stopped operations.

¹⁸⁴ “Pad Man” is an Indian movie released in 2018 based on the true story of Muruganantham Arunachalam, an Indian entrepreneur who became famous for inventing a low-cost and small-scale sanitary pad manufacturing machine. Known as “Pad Man”, the media coverage of his invention contributed to raising awareness on menstrual health and generalized small-scale machines.

¹⁸⁵ Tier two cities are cities with a population of 50,000 to 100,000 while tier three cities have a population of 20,000 to 50,000. For more information see India Briefing (2022), “India’s Tier 2 and Tier 3 Cities: Are They Right for Your Business?”.

Saral Designs' largest clients are entrepreneurs with an existing local anchorage and understanding of their communities' needs, who are motivated by improving MHH and creating local jobs. They can be divided into three types:

- NGOs using the machine to create livelihoods and raise awareness by mixing education and distribution (e.g., [Desai Foundation](#))
- Entrepreneurs with existing business activities willing to develop a new one while positively impacting their consumers (e.g., [Walson Industries](#))
- Organizations connected with the Government, well positioned for tenders (where local manufacturing is a requirement or at least a plus).

All three stakeholders noticed that menstruators are ready to pay a small premium for quality and comfort. Identifying a market gap between cheap fluffy pads, considered less discrete and pleasant to wear (e.g., Stayfree Secure sold at 4.3 INR (0.05 USD) per pad¹⁸⁶), and more expensive but more comfortable ultra-thin pads (e.g., Whisper Choice XL sold at 7 INR (0.09 USD) per pad¹⁸⁷), they offer ultra-thin pads at 5.6 to 7.5 INR per pad (0.05 to 0.09 USD)¹⁸⁸. They sell pads in packs of six or more, up to “jumbo” sizes (as some buyers purchase for several menstruators in the household) and usually provide additional services, like awareness sessions on MHH. Interestingly, while adapting products to local cultures and habits is often seen as an advantage of decentralized models, not all of Saral Design's clients have followed this approach. Desai Foundation uses the same Asani brand and packaging in three states, and Walson Industries uses a globalized name, “Max Comfort”, for its brand. Neither of these two adapts its marketing messages or packaging to local habits.



Credit: Desai Foundation

Desai Foundation

Desai Foundation is a public foundation focused on women and children. Its Asani program conducts awareness on menstrual health while providing livelihood opportunities for women through five production centers of sanitary pads across three states in India, each employing 10 to 15 women and producing 150,000 pads per month. A pack of eight Asani ultra-thin pads is sold at 45 INR (0.55 USD) through a door-to-door women sales force in villages, which also supports menstruators on MHH topics.



Credit: Hystra

Walson Industries

Walson Industries is a private company created by Sanjay Bage in the Maharashtra state, building on its existing marketing and trading company. It sells 1.5 million pads per month (producing 90% of them through two Saral Designs machines) in 1,100 local shops in 500 villages and through 3,800 women of 350 SHGs. A pack of six Max Comfort ultra-thin pads is sold at 45 INR (0.55 USD).

Business model: The unique benefit of decentralized production is to build more value at the local level, create direct market linkages with consumers and help create awareness, thanks to grassroots approaches

Saral Designs is a technology-driven company focused on leveraging its engineering skills to develop the most effective machines. Machine sales thus represent 80% of its revenues, with sales of raw materials accounting for the other 20% and a much smaller share of the company's profits, since this service is offered at a low margin, mostly for clients' convenience.

¹⁸⁶ The minimum retail price for a pack of Stayfree Secure was 30 INR (0.37 USD) for seven fluffy pads, as of January 2023.

¹⁸⁷ The minimum retail price for a pack of Whisper Choice XL was 42 INR (0.64 USD) for six ultra-thin pads as of January 2023.

¹⁸⁸ The price for a pack of Asani pads produced by Desai Foundation (eight ultra-thin pads) and for a pack of Max Comfort pads produced by Walson Industries (six ultra-thin pads) was 45 INR (0.55 USD) as of January 2023.

By supporting entrepreneurs in setting up and running local production units, Saral Designs allows more value to stay at the local level:

- It helps create livelihood opportunities for 10 to 15 local low-skilled women per production unit, which some donors can be ready to pay for.
- It leverages the (today under-used) potential of local entrepreneurs and their distribution networks; compared to traditional wholesalers, these entrepreneurs truly believe in the product they manufacture and are proactively creating demand for it.
- It leverages proximity marketing, built on deep knowledge of local consumers' aspirations and habits, creating a competitive advantage over multinationals and their costly, less-targeted mass media campaigns.
- The smaller number of distribution intermediaries (from five to one or two) and the lower overheads of these local companies allow entrepreneurs to offer better margins to retailers, which helps convince them to stock the product and to push it to consumers.

The ideal profile of a Saral Designs' entrepreneur is thus a company already operating (to access financing for the machine investment), with an established distribution network and experience in marketing (to encourage first trials).

The effective marketing and distribution tactics used by entrepreneurs at the last mile include:

- **Focusing on rural areas or tier two to three cities**, that have only a few competing brands and make it easier to create brand recognition and a significant consumer base.
- **Encouraging first trials through limited but effective direct interactions with consumers.** Walson Industries conducts a three steps marketing approach to encourage trial and create habits, while limiting market activation costs: In new villages, door-to-door women promoters first give free packs, then come back during the next two months to sell them at a discounted price (i.e., at no margin for the company). Local shops start distributing them from the third month once consumers' interest has been established.
- **Leveraging local women networks as distribution channels**, and keeping them only if they pre-exist and do not need to be fully paid for. Desai Foundation identifies part-time saleswomen through its other programs and Walson Industries leverages SHGs, both creating distribution channels that ensure the availability of products over time (especially for menstruators who might be less comfortable purchasing from a male shop), without taking on their entire costs.
- **Ensuring availability in local shops.** Once menstruators have tried (and liked) the product, the most cost-effective channel remains retail. Desai Foundations' saleswomen thus place products in local shops (splitting the margin with the shopkeeper) and Walson Industries offers incentives schemes to retailers to ensure they stock and push the product, based on deep local knowledge of their expectations. For example, sponsored trips to a place of pilgrimage for the top sellers, or prize draws to reward sellers who consistently use merchandising.

Scale: Saral Designs' path to scale is to expand its reach and diversify in other types of machines

Saral Designs plans to scale up by focusing on its technological assets. The company aims to saturate the Indian market, by selling more diversified and cost-effective machines in the next five years, while also expanding to other geographies. It will also diversify in other types of machines, continuing to develop special-purpose machines based on clients' requirements and expanding into other hygiene products.

Sources

Interviews with Saral Designs management, Desai Foundation, and Walson Industries (2023)

[Saral Designs' website](#)

Contact

Suhani Mohan, Saral Designs Founder, suhani@saraldesigns.in

Yati Desai, Desai Foundation Regional Director, yati@desaifoundationtrust.org

Sanjay W. Bage, Walson Industries Founder, walsonindustry@gmail.com



Credit: Hystra

CASE STUDY: SIRONA

Background information

- Company/brand: Sirona Hygiene Private Limited
- Type of organization: For-profit company
- Product portfolio: Personal safety products and feminine hygiene products (e.g., for menstruations, intimate care, toilet hygiene, and hair removal) including several types of menstrual hygiene products, e.g., menstrual cups, disposable and reusable pads, tampons, menstrual discs, menstruation pain relief patches, disposal bags, etc.
- MHH product prices (consumer prices): Menstrual cup (available in three sizes) sold at 259 INR (3.2 USD)
- Main countries of operation: India (70% of machines sales)
- Scale: 400,000 cups sold in 2022

General description

In 2015, Deep Bajaj, an Indian entrepreneur, had the idea of a standing pee device during a road trip with female friends who were desperately looking for clean toilets. He created the “PeeBuddy”, India’s first stand and pee funnel, which quickly attracted high media coverage and started being used in large events (e.g., the Mumbai Marathon).

Deep decided to build on this momentum to fulfill a larger mission and established Sirona, a brand that solves unaddressed yet common menstruation, intimate, and toilet hygiene concerns, with the help of innovative products. After toilet hygiene, he decided to solve the challenges of disposable pads, the most used commercial solution that still causes rashes and disposal difficulties, by launching Sirona’s flagship menstrual cup. The cup is now among Sirona’s best seller products, with one million units sold since 2015. The company has since expanded into intimate care, hair removal, and personal safety.

Value proposition: Sirona offers a comprehensive menstrual health product catalog with a specific focus on its flagship 3.2 USD menstrual cup

Sirona’s motto is that every menstruator should have a range of menstrual hygiene products to choose from each month, depending on their personal preferences and contextual needs. The company offers not only all types of menstrual products (listed above), but also a comprehensive set of solutions to menstruation-related challenges: Menstruation stain removers, menstruation pain patches, sanitary disposal bags, etc.

Sirona particularly advocates for the menstrual cup since it addresses the main issues faced by menstruators during their menstruations: “*You don’t have to find toilets to change it because you can wear it all day, you no longer experience awkward walk, you don’t need a regular budget for menstrual products...*” says Deep Bajaj. Since 2015, Sirona has focused on developing a holistic and attractive offer to encourage consumers to adopt the cup:

- Sirona’s cup is a quality product, made of 100% medical-grade silicon and specifically designed to ease removal through its improved grips and tip. Menstruators can use one cup continuously throughout their menstruation, only washing it with soap and water between uses and sterilizing it before and after each menstruation, by putting it in boiling water or using a sterilizing product. It is also a highly cost-effective solution: Sold at 259 INR (3.2 USD), it lasts up to 10 years, corresponding to a 2.8 INR (0.03 USD) cost per menstruation. This is compared to 105 INR (1.3 USD) per menstruation if using disposable pads from the market leader¹⁸⁹.
- Beyond the product itself, Sirona supports consumers in their post-purchase learning curve. Mastering how to insert and remove the cup usually requires support; for example, a specific folding and pinching technique helps avoid hurting oneself or spilling blood. The company thus offers a set of tutorial videos, consumer testimonials, and FAQs on its website and social media (accessible via QR codes on the packaging), as well as a helpline to answer questions directly.

As a result, Sirona’s cup satisfaction rate on Amazon is 4.2 out of 5, based on 40,000 ratings. A few examples of consumer feedback include: “*when you use this menstrual cup, you will completely forget that you are even on your menstruation*”, and “*trust me, once you get it right, there is no going back*”.

Sirona also developed a way to serve lower-income menstruators, for whom investing six to eight times the price of a pack of disposable pads is not an option. The company sells cups at cost to NGOs (i.e., 88 to 122 INR (1 to 1.5 USD) per cup) and created the Sirona Hygiene Foundation, which organizes free cup distribution programs with 1 INR (0.012 USD) from each product sale of Sirona being donated to the foundation, to fund this. To compensate for the higher cultural taboos linked to insertion and the lower digital savviness of these communities, Sirona trains NGOs and provides free educational materials on how to support menstruators in adopting the cup. Each program contains two initial training sessions (one on MHH, one on how to use the cup) and monthly follow-up sessions over three months, to answer menstruators’ questions and help them with potential challenges. This has led to a 35 to 52% adoption rate. The main reasons for non-usage are pregnancy and relatives not wanting women to use products requiring insertion. Sirona is trying to address the latter by involving men during training and distribution, to maximize their understanding and acceptance of the product.

¹⁸⁹ If using 15 pads from a pack of six from Whisper Choice, which are sold at 42 INR (USD 0.9).

20,000 menstruators have received free cups so far, with a focus on those who are married, for now, to ensure adoption within a group more likely to accept products requiring insertion. These programs have shown that the menstrual cup is not only for an urban wealthy elite but could suit lower-income menstruators: As an example, Sirona donated menstrual cups in a refugee camp in Delhi, where they were used even in challenging hygiene environments.

Business model: Sirona has leveraged digital channels to earn a 60% market share in the Indian menstrual cup market

Sirona is a digital native brand built to meet the habits and expectations of urban menstruators aged 18 to 30 with medium to high income: 90% of sales are online. The company has managed to reach a 60% market share in the Indian online cup market due to its pioneer positioning and online presence:

- Sirona products are available on more than 15 online platforms, including leading marketplaces in India like Amazon, Nykaa, and Flipkart; and quick commerce platforms like Blinkit, which offers delivery in 10 minutes (a feature particularly important for menstrual products sometimes bought urgently). These platforms represent 70% of Sirona's total sales, with the other 20% generated through its own website.
- The company has a very strong and diversified presence on social media, publishing seven to eight videos per day on Instagram and multiple videos every month on Youtube. As of April 2023, Sirona's Instagram account has 95,000 followers (three times higher than Whisper India, the market leader for disposable pads in India), in a country where people spend on average 2.5 hours per day on social media¹⁹⁰.



Example of Instagram post and YouTube videos on Sirona's social media accounts. Credit: Sirona

To increase its consumer base, Sirona has been gradually expanding into retail since 2020. The company is now present in more than 1,000 retail stores and pharmacies. Yet, this channel only represents 10% of total sales due to the novelty of Sirona's product categories, which require more explanation and trust building than established categories like disposable pads (65% of Indian menstruators aged 15-24 use disposable pads, while just 0.3% use a menstrual cup¹⁹¹).

Beyond its effective distribution and marketing strategy, Sirona's cup price is very competitive, at 35% to 200% cheaper than its competitors¹⁹². To achieve this, the company leverages its product catalog: More than 30 SKUs allow Sirona to spread its fixed costs, in particular logistics (e.g., of the warehouse with 75 staff) and overheads. Sirona also takes a smaller margin on the cup compared to other products, not only to ensure access but also to make it an appeal product leading to larger orders (including higher margin products) and repeat sales (representing 30% of Sirona's consumers today). Finally, Sirona procures its menstrual cups from Indian suppliers, allowing the company to benefit from their economies of scale without investing in manufacturing capabilities, while negotiating bulk prices thanks to large sales volumes.

¹⁹⁰ Buchholz K., (2022), "Which countries spend the most time on social media?"

¹⁹¹ Ahuja A., (2022), "In India, About 50% Of The Women Aged 15-24 Years Use Cloth During Periods: National Family Health Survey".

¹⁹² See, for instance, the range of cups available on Amazon India, as of May 2023.

Scale: Building on its exponential growth, Sirona is looking to deepen its market penetration in India and start exploring other countries

In less than seven years, Sirona has become a significant player in the Indian feminine hygiene market, achieving one billion INR revenues in 2022 (12.3 million USD). The company is on a steep growth path: It has sold one million menstrual cups to date, including 400,000 in 2022 alone. To support this growth and fund expansion, Sirona raised one billion INR in 2021 (12.3 million USD).

Over the next five years, the company plans to leverage its current catalog of products to deepen its market penetration in India and start exporting to other countries. Sirona is also expanding into new product categories, always in line with its philosophy of supporting unaddressed feminine challenges: It recently acquired a personal safety product (pepper spray) company in 2022.

As part of its objective to improve access to cups for low-income menstruators, the Sirona Hygiene Foundation plans to distribute 500,000 menstrual cups over five years. In the longer term, the company envisions working to end menstruation poverty nationally, through distribution partnerships with the Government and expansion into the lower-income market.

Sources

[Sirona's website](#)

Interviews with Sirona's management and field visit (2023)

Contact

Deep Bajaj, CEO and Founder, deep@thesirona.com

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INTERVIEWS AND REVIEWS

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Contact us:

Lucie Klarsfeld McGrath - lklarsfeld@hystra.com

Follow us and reach out on LinkedIn:

<https://www.linkedin.com/company/hystra/>