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Addressing period poverty can boost India's GDP by 2.7%: insights, implications & initiatives

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Abstract

Menstrual Health and Hygiene (MHH) is essential to the well-being and empowerment of women and adolescent girls. As per World Bank, on any given day, more than 300 million women worldwide are menstruating. However, an estimated 500 million lack access to menstrual products and adequate facilities for menstrual hygiene management (MHM). And 4.5 billion people don't have access to adequate sanitation facilities. My study included primary and secondary research and analytics to understand how menstrual health management is practiced across various parts of India, challenges and opportunities, barriers to access and stigmas associated and finally benefits gained by menstruators by using period products. It then looks at Menstrual Health Investment Index as a % of India's GDP per capita, how current disposable period products are unaffordable for a large part of population and compares the cost of menstrual hygiene management for reusable alternatives vs the traditional disposable ones and how reusable options can help address period poverty. The research then estimates the economic gains that India can make to its GDP by positively impacting and addressing period poverty. It then looks policy, law and other implications and cites various positive work done by entrepreneurial changemakers, non-profits and individuals to address menstrual health and reduce and remove period poverty.

Keywords: Economics, India GDP, period poverty, menstrual health management, menstrual survey, gender equity, healthcare

Introduction

Background: Millions of women menstruate daily worldwide, however, many lack access to menstrual products and adequate facilities for menstrual hygiene management (MHM). To effectively manage their menstruation, menstruators (girls, women & others) require access to water, sanitation and hygiene (WASH) facilities, affordable and appropriate menstrual hygiene materials, information on good practices, and a favourable environment where they can manage their periods health without taboos or stigma.

Aim: The study aims to understand how menstrual health management is practiced across various parts of India, challenges and opportunities, barriers to access and stigmas associated and finally benefits gained by menstruators by using period products. It then looks impact of using disposable products vs green menstruation options and how reusable products help address period poverty. The report then estimates the economic gains that India can achieve by positively impacting and addressing period poverty and finally initiatives to address period poverty.

Material & Methods: Primary research was done (sample size 468 menstruators across India, where women & girls were interviewed in health centres via paper inputs and feedback was taken digitally from various cities) to understand background of menstruators, awareness, access to period products, menstrual health products and practices followed, channels of purchase & buyers, access to WASH (privacy, toilets, water), awareness & attitudes to safe disposal, stigma associated, availability of period products in schools and at workplaces, missed days in schools or workplace due to periods & reasons thereof, spend amounts by products, restrictions placed due to periods stigma and emotional and rational

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benefits of using menstrual hygiene products. Secondary research and analysis were done basis various global UN agencies, World Bank studies, research articles, websites, policy documents, infographics, news, and magazine articles to gain a better understanding of the menstrual hygiene management topic. Basis this, estimates were made for impact on GDP by keeping girls in schools, colleges. The information taken from these sources have been mentioned against the text or in citation notes.

Results: There are multiple key findings

- By reducing period poverty, India can boost GDP by 2.7% (\$ 86.7 Billion), as girls and women continue their education in schools and colleges, and join workforce
- Removing period poverty has the potential to add \$ 3.2 Trillion in GDP gains, which is the similar to India's current GDP, over a 37-years menstrual lifetime
- Menstrual Health investment index as a % of India's GDP per capita stands at 1.2%
- Awareness or education doesn't equal to preparedness 89% of menstruators were aware about periods but only 37.4% were prepared to handle them
- Access is a luxury in schools & at workplaces as 71.4% didn't have access to period products at their schools or workplaces in case they needed them and 70.5% have missed schools & workdays due to periods and 1 in 5 (20.9%) have stopped going to schools after periods started
- Menstrual taboos & patriarchy continues: 63.5% mentioned that there is shame associated with talking about periods and 84% of menstruators had multiple restrictions placed on them
- Ignorance continues around Menstrual Health Management: 72.9% said they have fallen ill due to periods-related issues and 60.9% sought no medical help at all
- Reusable menstrual hygiene products can be effective in addressing period poverty: Reusable menstrual cups & pads cost only about 9 to 19% vs. traditional disposable sanitary pads during their lifetime

Discussion & Limitations: The research relied on interviews conducted in clinics, health centres by health workers and also on Google forms. Due to travel constraints, in-depth interviews with some menstruators were conducted over phone to better understand the topic and limited face to face discussions in Gurgaon area.

Conclusion: Addressing period poverty leads to not only immediate gains of increasing India's GDP by 2.7% but also adds significant value to India's GDP during a menstruator's lifetime. Helping menstruators manage their periods enables them to continue their education and not fall behind and therefore has a multiplier effect on overall society, e.g., ensure universal secondary education for girls, virtually eliminate child marriage, reduce early childbearing, reduce fertility rates in countries with high population growth, and increase women's decision-making ability and psychological well-being.

Introduction to Menstrual Health Management and Period Poverty

As per World Bank, there are 300 million women globally who menstruate daily. And about 500 million suffer from period poverty or lack access to period products and facilities for managing menstrual hygiene management (MHM). For managing their periods, women and young girls need WASH facilities(water, sanitation, and hygiene) facilities, cheaper period products and awareness materials for understanding menstrual hygiene, and a conducive environment where they can manage menstruation without taboos, stigma, or embarrassment. Also, a much more inclusive term used by informed health care providers these days is "menstruators", meaning, people who menstruate/have periods. This is so as it includes transgender men and non-binary people as well. In my research, I used these terms interchangeably to refer to a wider all-inclusive "menstruator" meaning.

Not having access to good menstrual health management leads to period poverty situation. Period poverty is defined as the challenges and struggles many young girls and women face especially from lower socio-economic income groups when they can't afford to buy menstrual hygiene products. A wider definition includes lack of

- Awareness about menstrual hygiene management knowledge
- Availability of adequate WASH facilities(water, sanitation, and hygiene facilities) and privacy
- Access to quality period products continuously
- Access to pain medication or healthcare guidance in case of periods-related health problems
- Safe & hygienic disposal of sanitary products

Menstruating girls, women, and other menstruators face multiple challenges that go beyond the basic lack of supplies or infrastructure. Menstruators face societal taboos that are controlling and discriminatory. As girls and women avoid such embarrassing situations, they stop going to schools and workplaces leading to loss of studies, falling behind and loss in incomes, thereby exacerbating social and economic inequalities and therefore their health and career development.

When Does Menstruation Start?

The starting of menstruation, called menarche, typically, starts around 13 years. The average age at which menstruation ends is somewhere around 50, also called as menopause. This means, an average girl menstruates for nearly 37 years of her life or over 2000 days of her life, which is roughly 8% of the time an average woman lives, typically 72 years.

Industry Overview of Global and Indian Menstrual Market

To manage periods, there are the 'traditional' disposable options of sanitary pads and tampons, to the newer age reusable products ~ absorbent underwear, reusable cloth sanitary pads, menstrual cups and menstrual discs.

The global value of menstrual hygiene product market was \$ 30.8 Bn in 2021 and is expected to grow to \$ 43.2 Bn by 2027 at a CAGR of 7%.

Bn \$	Value		% mix		CAGR
	2021	2027	2021	2027	
Sanitary Pads	24.4	32.8	79%	76%	6.1%
Tampon	4.7	6.7	15%	16%	7.3%
Menstrual Cups	0.92	1.2	3%	3%	6.0%
Period underwear	0.2	1.2	1%	3%	43.1%
Others (reusable options)	0.6	1.3	2%	3%	15.8%
Total Market Value \$ Bn	30.8	43.2	100%	100%	7.0%

The above is basis multiple global reports and my estimates for other reusable options. Basis different types of products, here's a summary of various categories:

Sanitary Pads Global Market

Research and Markets's report ~ "Sanitary Napkin Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027" estimates that the global sanitary napkin market was worth US\$ 24.4 billion in 2021. The market is projected to reach US\$ 32.8 billion by 2027, exhibiting a CAGR of about 5.1% during 2022-2027.

As per my analysis, an estimated over 244 Billion pads were being manufactured and used annually world-wide in 2021, amounting to roughly 39% of potential menstruators using them, with an average cost of \$ 0.1 per pad. This number is estimated to rise to 386 Billion by 2027, assuming pads usage increases to 45% of menstruating population, at a slightly lower \$ 0.085 per pad, as more women in developing countries start using cheaper options. By 2050, the overall sanitary pads market is estimated to be \$ 113 Bn, with an average cost of \$ 0.12 per pad and a staggering 939 Billion pads will be used, with close to 76% of menstruators using them.

The Indian Sanitary Pad Market

As per IMARC Group, the Indian sanitary napkin market reached a value of US\$ 618.4 Million in 2021. It expects the market to reach US\$ 1,185 Million by 2027, exhibiting a CAGR of 11.45% during 2022-2027. In value terms, Indian market is about 2.5% of the global market size.

The Tampon Market

The global tampon market size reached US\$ 4.7 Billion in 2021, as per IMARC Group and it is estimated that the market will reach US\$ 6.7 Billion by 2027, at a growth rate (CAGR) of 6.1% during 2022-2027.

The Menstrual Cups Market

The Menstrual Cup Market Size was \$ 920 Mn in 2021 and is expected to be \$ 1.23 Bn by 2027 at 4.96% CAGR, as per a report by ResearchAndMarkets.com's. The demand for menstrual cups is driven due to its cost-effectiveness, and being an environment-friendly solution.

Period Underwear

The global Period Panties (Menstrual Underwear) market was valued at US\$ 200.7 million in 2020 and is expected to reach US\$ 1.2 billion by the end of 2027, growing at a CAGR of 31.3% during 2021-2027, as per Absolute Reports.

Insights from Consumer Survey: Menstrual Health Management Situation In India And Globally: Awareness, Usage, Privacy, Taboos

Results from my primary research: "India Menstruation 2022: Trends, Challenges & Insights" survey of 468 menstruators across India conducted during Apr-Sep'22, across multiple cities, towns and villages in 13 states shows:

- **Awareness channels:** 89% are aware about periods. The top 3 channels of information or awareness were – Mothers(39%), Friends(25%), Self-discovery(22%) - learnt about periods when they first experienced periods. Other sources of info were ~ TV + radio + newspaper + book(18%), School teacher(17%), Health workers/Asha (13%) and Local hospital(11%). Menstruators became aware from multiple sources of info, hence total exceeds 100%.
- **Shame associated with menstrual health:** 63.5% of them mentioned that there is shame associated with talking about periods. Girls in villages and towns faced the shame-factor up to 2.5 times higher than those living in cities.
- **Awareness doesn't equal to preparedness:** While 89% were aware about periods whether before or after experiencing it, only 37.4% were prepared to handle periods. 53.8% were not prepared and 8.8% were unsure. Those in cities were 3 times more prepared than those living in villages. Those living in villages were 1.6 times more unlikely to be not prepared vs those living in town(71.7% vs 43.8%).
- **Not all facets of Managing Menstrual Health are well understood:** 72.4% are aware about changing pads or cloth frequently, washing private areas(45.7%), washing reusable cloth with soap, drying before re-using(37.8%). The bottom practices were - only 1 in 5 were aware about - Eating healthy food(22.2%), Seeking medical help, if unwell(20.7%) and Hygienic disposition of sanitary pad(20.1%).
- **Awareness and usage of menstrual products varied:** In terms of awareness, sanitary pads came first (68.8%) followed by cloth(66.5%), other home products(rags, newspapers, old fabric, dried leaves etc.) (21.4%), menstrual cup(16.9%) and tampons(10.5%). However, usage-wise, products used were cloth(58.5%), sanitary pads(42.5%) other home products(rags, newspapers, old fabric, dried leaves etc.) (19.4%), menstrual cup(8.1%) and tampons(1.3%). After speaking to multiple menstruators, I found that many menstruators used multiple products, e.g., at home, they would wear cloth or home-made options, but when stepping out for long commutes or work, they would use disposable sanitary pads. Tampons usage was for special occasions like swimming etc.
- **Reasons for current choices:** Top cited reasons were - Easy availability(48.5%), Free(48.3%), Traditional practice(27.8%), Cost-effective and reusable(29.9%). Top channels of purchase were ~ Local grocery stores(42.7%),

- Chemists/Health facility(37.4%). Non-availability of products came at 42.9%. Women were 2X times shoppers for female hygiene products vs men(45.9% vs 21.6%)
- **Average spends on menstrual products:** 48.3% don't spend and use home products. 13.7% spend below Rs 200, 11.3% Rs 200-400, 8.5% over Rs 400. 11.3% use both home products & spend below Rs 200. 6.8% have spent Rs 200-500 on menstrual cups. Some received products free as part of government and non-profits dignity kit distribution drives and hence usage and paying data varies.
 - **More is needed for improving WASH conditions(water, sanitation, toilets, privacy) barrier which prevents menstruators from stepping out to schools & workplaces:** 80.7% said they had privacy at home for menstrual health management, while only 48.6% had privacy in schools and 63.7% had it at workplace. Those having access to toilets varied ~ at home(90.6%), schools(60.3%) and workplaces(77.4%). Those having access to water at home was(80.7%), in schools(55%) and at workplaces(77%).
 - **Less than half of people can do proper disposal:** 48.1% said that after using period products, they could dispose them off in a safe and hygienic manner. 51.9% couldn't! After speaking to some of menstruators, I found that they used to burn, bury them in ground, dump in fields or even flush them toilets. Many expressed anxieties in towns and villages about disposal or even drying reusable pads.
 - **Access is a luxury in schools & at workplaces for 8-10 hours menstruators are outside:** Overall 71.4% menstruators mentioned they don't have access to menstrual products in schools or workplaces in case they needed them. This builds up anxiety due to possible leakages and results in missed days at schools & workplaces. While the national availability of products in schools & workplaces was 28.6%, in cities, it was 78.5%, in towns it was 38.5% and villages was a meagre 4.9%.
 - **One in 5 girls were school dropouts:** 70.5% menstruators said that they have missed schools & workdays due to periods. 28% have missed schools for 1-3 days, 17.3% (4-6 days), 6.6% (> 6 days) and 20.9% have stopped going to schools after periods started.
 - **Gender inequity continues:** Key multiple reasons cited to miss schools/workplaces were ~ don't have availability to period products(42.3%), Health-related issues like cramps, back ache(33.3%), shame or fear due to potential leakage(23.1%), lack of toilets with privacy at schools/workplaces(22.4%) & my family doesn't allow me to go to school/workplaces during periods(21.2%).
 - **Ignorance continues around Menstrual Health Management:** 72.9% of them have fallen ill due to periods-related issues and 60.9% sought no medical help at all. This led to various medical & health-related issues like UTI, heavy bleeding, bleeding between periods, inconsistent periods etc.
 - **Menstrual taboos & patriarchy continues:** 84% of menstruators said they have multiple restrictions placed on them due to taboos associated with periods. In fact, some restrictions are considered normal way of life, like not entering a temple or walking into a kitchen. These were ~ Don't enter the temple (74.6%), Don't enter the kitchen (48.5%), Don't eat, move freely or live in the house(17.7%), don't bathe (4.3%).

- **The road to equality & freedom:** After using period products, menstruators cited both rational and emotional reasons. Rational reasons cited were ~ 56.8% feel safe and comfortable, 25.6% said they can go back to my workplace / school even during periods. Emotional reasons cited were ~ 37.4% liked the freedom to step out any time, 16.5% have got control back in my life and 16.2% feel empowered to achieve their dreams in life

Findings from Previous MHM Research and Situation in India

Various studies done by Spot on Dasra, Nielsen and National Family Health Survey, NFHS-5, 2022, have pointed the following situation regarding menstrual health management situation in India:

- 70% of mothers consider menstruation 'dirty'. 50% to 88% of menstruating women in India use home-grown alternatives
- 63 million adolescent girls live in homes without proper functioning toilet facilities
- Common taboos are – don't enter kitchen, temple; don't touch animals as they can become infertile; don't bathe or stay in house; don't touch drinking water or utensils
- In India, 23% of girls drop out of school, for menstrual-related reasons
- Women with 12 or more years of schooling are more than twice as likely to be using a hygienic method as women with no schooling (90 & vs 44%)
- Women in the highest wealth quintile are almost twice as likely to use a hygienic method as women in the lowest wealth quintile (95% vs 54%)
- 90% of urban women use a hygienic method of menstrual protection, vs. 73% of rural women
- Women from the lowest wealth quintile are about 3.3 times more likely to use cloth than women from the highest wealth quintile
- Use of cloth for menstrual protection is higher among women from rural areas 57.2% compared to those from urban areas 31.5%

Current MHM & Period Poverty Situation in Developed Markets

It is a misnomer that period poverty exists only in developing markets and the developed markets don't face this issue. In fact, as per a new study by Columbia University Mailman School of Public Health and the CUNY School of Public Health showed that low-income women in US faced period poverty during Covid pandemic as they couldn't afford to pay for menstrual hygiene products.

A study by 'Share The Dignity' charity in Australia showed that of the 3.2 million Australians currently living below the poverty line, 52% of those are women and young girls, with many of them experiencing period poverty & girls missing schools.

As per a 2018 YouGov survey across U.K. secondary schools, more than 9 out of 10 girls worry about attending school because they fear they will be shamed. 350,000 girls miss school every year in the U.K. because of their periods, which leads to about 2.1 million hours in lost education.

Hence, period poverty does not only affect women and girls in developing countries, but also women in developed countries.

Investment by Menstruators and Menstrual Health Investment Index of India as a percentage of GDP Per Capita

After speaking to girls and women across urban cities and villages, here's a summary of period products usage patterns and investment made.

Girls living urban cities in higher income segments change pads more frequently. Over their lifetime, high income menstruators use about 15,500 sanitary pads, while those from lower income groups use about 6,600 sanitary pads. Pads on an average cost between Rs 5 to 9, based on prices of popular brands like Whisper or Stayfree.

	Higher income	Lower income
Pads used p.m.	35	15
Pads changed after x hrs	3.4	8.0
Months per year	12	12
Pads used annually	420	180
Total menstruation years in a lifetime	37	37
Total pads used in lifetime	15,540	6,660
Cost / pad (Rs.)	9	6
Monthly investment	315	90
Annual investment	3780	1080
Total Present value of investment in a lifetime	1,39,860	39,960
Avg price increase annually	3%	3%
Total investment over lifetime Rs.	4,17,514	1,19,290

Basis my estimates, women living in urban areas with high income would spend

Rs 4,17, 514 (~ \$ 5,567), while those living in rural areas with low incomes would spend about Rs 1,19,290 (~ \$ 1,591) over their menstruating lifetime.

Further, I did analysis what would be the cost of menstrual health management as a percentage of GDP per capita. We

can call it the "Menstrual Health Investment Index as a % of India's GDP per capita." Basis my analysis, India's GDP / capita in urban areas is \$ 3860, while that in rural areas is \$ 1410. The annual menstrual health costs are \$ 50 in urban areas, while its \$ 14 in rural areas. This translates into menstrual health investment index as a percentage of GDP/capita of 1.3% in urban areas and 1.0% in rural areas.

Menstrual Health Management Cost as A Percentage of GDP Per Capita

	Urban	Rural	Remarks
% of GDP contribution by Urban vs Rural	60%	40%	
Population	35%	65%	
Population in Mn	492	899	1,391 Mn total population
India GDP (\$ 3.17 Trillion) in Trillion \$	1.9	1.27	\$ 3.17 Trillion
India's average GDP/capita \$ 2277 p.a.	3860	1410	\$ 2277 p.a.
Annual Menstrual Product investment \$ (@ Rs 75)	50	14	
Menstrual Health investment index as a % of India's GDP/capita	1.3%	1.0%	

Population, GDP sources: Niti Aayog, World Bank

As per RubyCup, the Menstrual Health Cost Index states that a yearly supply of pads in Switzerland corresponds to approximately 0.04% of the Swiss GDP per capita whereas in Kenya it's 1.1% and in Uganda its 3.1%.

According to my research, an average 5-day period costs may vary between Rs 90 to Rs 315, depending upon where you live, frequency of changing and affordability. With an average Rs 169 monthly investment over menstrual products and a national-level minimum wage varying between Rs 225 to 500 depending upon different states, the cost of menstrual products can vary between 34% to 75% of daily earnings, leading both rural and urban poor women to choose unsafe and unhygienic methods or simply stop going out during menstruating days.

Implications & Economic Impact on GDP By Providing Menstrual Hygiene Management for All Menstruators and Removing Period Poverty

About 20.9% of girls drop out of school altogether upon reaching puberty due to not being able to afford menstrual products, period bullying, getting humiliated by their peers and unable to access clean, private toilets as per my research. Out of the estimated 110 Mn menstruating girls in schools, this translates into nearly 23.1 Mn girls.

And some 56 Mn girls in India miss schools every year once they start menstruating, due to multiple reasons and this translates into about 2 Billion days of lost education.

During work life, women miss out of on an average of 2 days per month due to period poverty. Over the next 22-29 years of work life (depending on when one starts working) till menopause hits, women have missed out between 580 to 850 days of work life due to a variety of reasons – fears of stains, period poverty, restrictions by family or workplace limitations, taboos etc. With a majority of women working in informal sector, where taking leaves means no money, women are left economically poorer and miss out on other opportunities.

As per World Bank, women with primary education (partial or completed) earn only 14 to 19% more than those with no education at all. However as per the report, women with secondary education can make almost 2 times higher, and women with tertiary education almost 3 times versus with those with no education at all.

In India, my calculation showed that there are broadly 3 types of economic losses due to period poverty

- Loss in income due to dropping out of secondary schools as girls hit puberty

- Loss in future income due to missing schools & hence inability to complete secondary education & transition to tertiary education
- Loss in income due to women not being able to go to workplace due to menstrual inequity

For data, I used GDP per capita data, India's overall GDP and men vs women population numbers from World Bank and various OECD and government data to look at number of women who are not literate, primary, secondary and tertiary educated. I then looked at World Bank study how women with tertiary, secondary & primary education earn 3X, 2X and 1.165X more than with those with no education at all. From there, I arrived at India's GDP per capita for women with no education, primary, secondary and tertiary education as \$ 1387, \$ 1616, \$ 2775 and \$ 4162 respectively. I then married this data with my menstrual research data and other reports to calculate economic gains possible if period poverty was removed.

The first loss is a bigger loss as girls who drop out of schools are limited in their jobs & opportunities and therefore it reduces their lifetime earning potential. As per my estimates 23.1 Mn girls drop out of schools and this amounts to \$ 35.1 Billion and is equivalent to 1.1% of India's annual GDP of \$ 3,170 Billion.

The second loss is due to nearly 24% of education days lost due to period poverty and hence a similar estimated number of girls unable to cope with their studies and unable to transition to tertiary education (graduation in college or university). This translates to \$ 37 Bn and is equivalent to 1.2% of India's annual GDP of \$ 3,170 Billion.

The third loss of workplace earnings is \$ 14.9 Billion and amounts to 0.47% of India's annual GDP. This is based on estimate that women in miss out on work earnings 24 days annually in urban and 72 days in rural areas due to variety of period poverty reasons.

On an annual basis, that's adds up to \$ 86.7 Billion and 2.7% of India's annual GDP.

Over a 37-years menstrual lifetime, this has the potential of adding \$ 3.2 Trillion in GDP gains, which is similar to India's current GDP.

Adding universal & tertiary secondary education for girls would have many other benefits, as per World Bank, like: virtually eliminating child marriage, reducing substantially early childbearing, reducing fertility rates in countries with high population growth, increasing women's decision-making ability and improving women's psychological well-being.

While removing period poverty can add about 2.7% annually, raising women's participation in the labour force to the same level as men can boost India's GDP further by 27%, as shared by IMF Chief Christine Lagarde and Norway's Prime Minister Erna Solberg in a joint paper released at the World Economic Forum in 2018.

Initiatives: Creating Menstrual Health Policy, CSR Funds and A Law for Menstrual Products Free for All

Over the past decades, Indian Government has been taking various positive steps to uplift health of girl child and women. Here is a summary (not exhaustive) of facts and the latest in India's efforts to ensure Menstrual Health Management (MHM) and what needs to be done:

- India's Ministry of Health and Family Welfare menstrual hygiene scheme focuses on adolescent girls (10-19-year-olds) in rural areas, and the number of such girls is about

77 Mn. However, the scheme should include girls in both urban areas and in age group of 21-24 and address about 177.4 Mn young menstruators. The scheme promotes menstrual health awareness, gives pads & teaches safe disposal and sells a pack of 6 sanitary pads called "Freedays" for Rs. 6, via Asha (Accredited Social Health Activist) sisters

- The Ministry of Women & Child Development runs a Kishori Shakti Yojana (KSY) that focuses on enhancing adolescent girls' health & development by ensuring access and availability of period products in schools, so as to ensure Fundamental Right to Children for Free & Compulsory Education. The scope should be widened from below 14-year-olds to include age groups till 24
- Prime Minister Narendra Modi became the first PM to address menstrual health topic in his Independence Day speech & shared that 5 crore sanitary pads have been delivered to poor women from 6,000 Janaushadhi Kendras
- Pads4All change.org petition: To advocate removal of period poverty, I have created a petition on change.org website. The petition requests Government of India to pass a law to ensure menstrual hygiene products for all young menstruators across India, similar to recently law passed in Scotland that became the first country globally to make period products free

The Government has initiated lot of on-ground actions and policies to bring about positive effects for girls' and women's health. However, there are 16.2 lakh girls in the country, in the 11 to 14 age group, who do not attend schools, as per the statistics shared by Union ministry of women and child development. As per various reports, menstruators still suffer from period poverty and are missing out on schools and workplaces due to multiple reasons. This is where, Government needs to invite multiple players to end period poverty:

- Drive awareness and make menstrual health management topic mainstream by involving various well-known celebrities
- Invite Indian corporates to fund menstrual product distribution effort across India
- Help set up menstrual products manufacturing units in various villages and towns via funding manufacturing machines
- Ensure easier disposal by inviting corporates to set up incinerators across villages, towns in schools, colleges & public toilets
- Reduce menstrual waste by using both government and private sector labs to drive R&D for developing organic and bio-degradable pads
- Encourage reusable alternatives by driving awareness and encouraging start-ups to scale-up operations
- Ensure that schools, colleges and workplaces have menstrual products available, in case menstruators need them and ensure privacy and operational WASH (water, sanitation and hygiene) conditions

How Can Top Indian Organizations Help?

To provide products for say, 15 sanitary pads per month for 177.4 Mn menstruators in India, it will require an investment of Rs 3193 crores (Rs 6 for a pack of 6). With total profit of the Top 10 companies in India at Rs 3.25 lakh crores, the cost is just 0.98% of the total profit of these companies. And the cost comes down to just 0.5% of the

total profit of Top 500 companies (Rs 6.22 lakh crores profit). The Indian Government can invite large Indian and MNC companies to use their Corporate social responsibility funds to offer free menstrual pads for all menstruators.

How Can Individuals, Brands and Non-Profits Organisations Help?

Multiple start-ups are doing pioneering work in menstrual health management area. A few notable ones are: Saukhyam Reusable pads, that makes reusable sanitary pads made of banana fibres and cotton cloth, Sirona Hygiene that offers menstrual hygiene products like menstrual cups and other women hygiene products and Menstrupedia that offers education content on menstruation in the form of comic books, workshops, and animated videos.

Reusable pads typically cost Rs 150-200 and with an investment for 5 pads, that can last for 2 years, they cost only about 19% of disposable sanitary pads' costs consumed over the same time-period. Similarly, the reusable menstrual cup cost Rs 500 and with an investment for 2 cups, that can last for 5 years, they cost only about 9.9% of disposable sanitary pads' costs.

Multiple non-profits who are driving awareness, advocacy and product distribution drives. E.g., The Pad project, started by co-founder Melissa Berton and her colleagues and students, utilizes a social enterprise model, wherein, it empowers women to run their own business by making and selling menstrual pads and drives menstrual awareness workshops. Goonj focuses on under-privileged women by supporting Access, Awareness and Affordability initiatives, by asking urban masses to contribute cloth for making 'My Pads' cloth sanitary pads.

Individuals driving menstrual equity are: Arunachalam Muruganantham, popularly called as the Padman, is the inventor of a low-cost sanitary pad-making mini-machine that can manufacture sanitary pads for less than a third of the cost of commercial pads and these machines have been installed in almost all the states of India in rural areas. In Bhojpur villages, Bihar, the women of Dawan village in Bihar are openly discussing the use of safe products during periods, their proper disposal, maintaining cleanliness and manufacturing sanitary napkins and selling them in neighbouring villages, thanks to efforts of its village head and district administration.

Conclusion: Menstrual Hygiene Management Is A Strategic Multiplier and Can Up India's GDP By 2.7%

In India, there are over 400 million menstruators, and an estimated 23.1 million young girls drop out of schools every year basis my research when they start menstruating due to period poverty.

Not being able to afford period products can create conditions that forces girls & women to stay home away from school and work and this can have long-term consequences on their education and economic opportunities.

By reducing period poverty, India can boost its GDP by 2.7% or \$ 86.7 Billion, as girls and women participate in schools, colleges and workplaces. In fact, removing period poverty has the potential to add \$ 3.2 Trillion in GDP gains, which is the similar to India's current GDP, over a 37-years menstrual lifetime.

Menstrual health management is a strategic multiplier and is a compelling business case for all governments and offers

predictive and measurable returns on investment and multiple tangible and non-tangible benefits to not only menstruators, but also to the society.

Period poverty can be removed by multi-stakeholder engagement from individuals, corporates, non-profits and government's collaborative effort. The primary focus has to be mothers, schoolteachers and local Asha health workers and removing period stigmas and ensure that they are made aware about menstrual hygiene management practices. Ensuring privacy, working toilets and WASH conditions and safe disposal are hygiene elements that we need to ensure for menstrual hygiene management.

We must as a society, as individuals, companies, non-profits and government, come together to create awareness, momentum, policy and participate to ensure gender equity and support menstrual health management for all menstruators in India. I believe that helping women make the most of their potential is key to India's continued rise on the global stage and it starts by ensuring gender diversity and inclusive menstrual health management policies. Together, we can create a world where no girl is held back because of her period. Full Stop!

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