

# **Establishing a Sustainable, Low-cost, Biodegradable Sanitary Napkin Production Facility in Sri Lanka**

Towards zero period poverty

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## Acronyms

**CEB** – Ceylon Electricity Board

**CSR** – Corporate Social Responsibility

**DSRSL** – Democratic Socialist Republic of Sri Lanka

**GN** – Grama Niladhari

**GRÓ GEST** – Centre for Capacity Development, Sustainable Use of Natural Resources and Societal Change - Gender Equality Studies and Training Programme

**IWMI** – International Water Management Institute

**KPI** – Key Performance Indicators

**LCA** – Life Cycle Assessment

**LECO** – Lanka Electricity Company

**NIOSH** – National Institute of Occupational Safety and Health

**NMRA** – National Medicines Regulatory Authority

**OSH** – Occupational Safety and Health

**PM&E** – Participatory Monitoring and Evaluation

**R&D** – Research & Development

**SDGs** – Sustainable Development Goals

**SLSEA/SEA** – Sri Lanka Sustainable Energy Authority

**SMART** – Specific, Measurable, Achievable, Relevant and Time-Bound

**SRH** – sexual and reproductive health

**SRHR** – Sexual and Reproductive Health, Hygiene and Rights

**SSP** – Sustainable Sanitation Project

**SWOT** – Strengths, Weaknesses, Opportunities, and Threats

**UN** – United Nations

## Acknowledgement

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Lastly, I will miss this small island and the friendly people (a thought I never imagined I would have) in the middle of the Atlantic Ocean with the most unpredictable weather I've ever experienced.

I would also like to acknowledge that this proposal has used the term 'women' mostly instead of the more inclusive term 'menstruators' as women are not the only individuals who menstruate. This has been done not to erase any group of persons' experiences but solely because. Yet for this project proposal, the word 'women' has been used as Sri Lanka officially recognizes only men and women as genders and all reports or articles does the same. As an LGBTQIA+ individual, I am well aware of the varied experiences surrounding menstrual and reproductive health of different individuals and will apply the theories/activities proposed to specific situations as required, i.e., to other gender/marginalized individuals.

## Definitions

**Period Poverty:** Period poverty is a term used to describe a lack of access to proper menstrual products and the education needed to use them effectively.

**Social Enterprise:** A social enterprise is an organization that applies commercial strategies to maximize improvements in financial, social and environmental well-being.

**Circular Economy:** an economic system based on the reuse and regeneration of materials or products, especially as a means of continuing production in a sustainable or environmentally friendly way.

**Sanitary Napkin:** A menstrual pad, or simply a pad, is an absorbent item worn in the underwear when menstruating, bleeding after giving birth, recovering from gynaecologic surgery, experiencing a miscarriage or abortion, or in any other situation where it is necessary to absorb a flow of blood from the vagina.

**Decolonisation:** The practices and actions of individuals in the menstrual health space that work to dismantle long held-attitudes that have been conceptualized through imperialist and colonialist ways of thinking.

**Menstruation:** Menstruation is the regular discharge of blood and mucosal tissue from the inner lining of the uterus through the vagina

**Menstruator:** is an inclusive term for all people who menstruate. This includes girls, women, trans men, non-binary, and intersex people

**Menstrual Hygiene Products:** Menstrual hygiene materials are the products used to catch menstrual flow, such as pads, cloths, tampons or cups.

**Menstrual Health And Hygiene:** Menstrual health and hygiene refers to access to menstrual hygiene products to absorb or collect the flow of blood during menstruation, privacy to change the materials, and access to facilities to dispose of used menstrual management materials.



## Foreword

When Abhisheka Wimalaweera and Pranirsha Thyagaraja sang, “මේ තමයි ලංකාව, දරුවෝ එක් වී හදන ලෝකේ පෝසත්ම රට” (Mé thamai Langkáwa, daruwo ek wí hadana lóke pósathma rata) – translation: This is Sri Lanka, world’s richest country that children unite to build; it deeply resonated with me.

Sri Lanka has been plagued by corruption, bureaucracy and inadequate leadership and management since Independence from the British in 1948. We can’t keep blaming the Portuguese, Dutch and British for the sorry state of the country, or even the patriarchy entirely while sitting idle. Studying my history and seeing the suffering of people in everyday life has driven me towards social and political activism, not just activism but the will to make tangible change. Through the formation of organizations like Safe Circles and Liberal Fellowship and volunteering in many civil society organizations, I strive to make positive change in Sri Lanka.

Throughout Sri Lanka's recorded history, as chronicled in the Mahavamsa, women have faced systematic oppression and subjugation. This narrative begins with the arrival of Prince Vijaya (c. 543–505 BCE) from India, who, aided by the affection of a local princess (Kuveni), orchestrated the downfall of her own people to establish his rule over the island. After being instrumentalized, this princess was cast out into the wilderness with her two children to make room for a higher-caste Indian princess, whom the king chose to marry. This pattern persisted over generations, with Indian princesses being brought down to wed Sri Lankan kings, marginalizing local women until Sri Lanka’s last King and his queen, King Sri Vikrama Rajasinha (c. 26 July 1798 - 5 March 1815) and his queen Sri Venakatha Rangammal Devi.

Sri Lankan women continue to be discriminated against to this day despite their pivotal roles in the establishment of Buddhism in Sri Lanka. Even though women have played essential roles in securing Buddha's relics, they are restricted from venerating them fully and denied access to certain sacred areas and chambers, such as going near the trunk of the Bodhi tree that was brought down by Venerable Sangamitta Thero (Buddhist nun) or entering the chamber of the tooth relic that Princess Hemamala brought by hiding in her hair, to this day. This paradox highlights the persistent disparity between the historical significance of women in Sri Lanka and their contemporary treatment within societal and religious frameworks.

This project is one such attempt at correcting historical oppression and injustice of Sri Lankan women and marginalized communities. It is in this historical oppression that this project is dedicated to the empowerment of women, with a focus on enhancing their autonomy over their own bodies. It strives to promote both equality and equity, ensuring that all women have the means to influence and make decisions about their personal well-being and societal roles.

## Executive Summary

Despite Sri Lanka's high economic growth in the last decade, more than 50% of menstruating women, about 2.9 million individuals, face significant barriers to accessing affordable menstrual hygiene products. This was intensified by the 2019 economic crisis, which doubled poverty from 13% to 25%. High taxation and importation costs and limited availability exacerbate the affordability and accessibility issues.

Cultural norms further exacerbate the issue, with stigma, taboos and shame around menstruation preventing many women from accessing necessary products and health interventions. Apart from affecting personal hygiene, this also leads to absenteeism from school, impacting education and future opportunities for girls and absence from work, leading to decreased workforce participation of women, causing economic implications for the families and the community.

Previous tax concessions have failed to offset high inflation rates, resulting in continued high prices for menstrual products. NGOs often carry out short-term interventions that lack sustainability or a long-term vision. For instance, donating reusable menstrual products like menstrual cups or cloth pads that do not fit within the local context where proper washing and drying under the sun are prevented due to stigma and shame, leading to potential health risks like fungal infections or one-time donation of single-use pads, which leaves the women in the same situation when they run out. Many of these interventions are not followed up with awareness programs.

To effectively address these issues, I propose establishing a low-cost, biodegradable sanitary napkin production facility in Sri Lanka, which would make sanitary napkins more accessible, affordable and environmentally sustainable. An integral part of this project will involve awareness campaigns to educate local communities about menstrual health and hygiene and challenging existing stigmas and myths. Overall, the project would create job opportunities, reduce the environmental impact of menstruation, and empower women through increased knowledge about menstrual health and hygiene and community support.

## 1. Introduction

*“To be a feminist or a feminist theorist is itself to engage in the very act of choosing to speak, of discovering the possibility of authority, of using that speaking, that authority, to bring about fundamental changes in the possible ways of being that available to oneself and others.” (Davies, 1991)*

As someone who understands what it means to be different in a patriarchal, conservative society, as someone who is treated differently by society, by the state and even within the confines of the family, I empathise with the struggles of women in everyday Sri Lanka. This connection fuels my commitment to advancing women's public health, particularly emphasising menstrual health and hygiene. This proposal will delve into the stark realities faced by Sri Lankan women in 2024. It comes with the denial of rights, an absence of education on bodily autonomy, and a severe lack of financial resources to manage their menstrual health, an inherent and involuntary aspect of their lives.

In the words of Koskenniemi (2022), “A simple act of revolution is to learn about your body, to get to know the terrain of your cycle, and to take charge of your own health. Our bodies have long been weaponised against us and used to keep us out of positions of influence and power, but the red tide is turning, and it’s time for us to take advantage of what our hormones can do for us”. This powerful statement establishes menstruation not as a hindrance but as a potentially empowering process that calls for comprehensive knowledge about the menstrual cycle for individual health and broader social change. In Sri Lanka, where women are an integral contributor to the economy, their needs are systematically neglected, especially concerning menstrual health. Thus, the need for change is urgent and imperative.

Of the 52% of Sri Lanka’s 22.18 million population, women are the backbone of our economy, contributing tirelessly to various sectors despite being undervalued and underpaid; about 50.1% (about 5.8 million) menstruate. Their menstrual health needs are often overlooked. According to Hafiz Jaafar et al 2023, Period poverty is *“the lack of access to safe and hygienic menstrual products during monthly periods and inaccessibility to basic sanitation services or facilities as well as menstrual hygiene education”* (Hafiz Jaafar et al, 2023) Menstrual hygiene products are unaffordable or inaccessible due to a combination of factors such as poverty, lack of education, and the high cost of imported sanitary products

(Jayamanne, 2020), leading to period poverty and leaving a critical gap in women’s health infrastructure. Moreover, deep-rooted cultural taboos and the widespread lack of menstrual health education disseminate misinformation about menstrual hygiene practices. This document's problem tree (Figure 3) shows that the social stigma and inaccessibility of sanitary napkins pose a substantial risk to women's well-being and the country’s economy (Samarakoon et al., 2024).

### Sanitary Napkins: Subjected to Unreasonably High Taxes

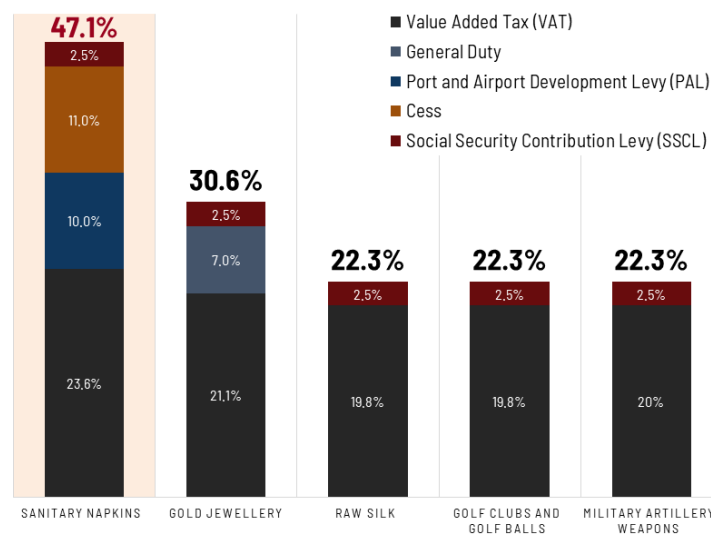


Figure 1: Taxes on Sanitary Napkins in Sri Lanka (Publicfinance.lk, 2024)

Figure 1 presents a striking visualisation of the tax burden on sanitary napkins compared to other selected items, highlighting the economic challenge posed by the taxation of menstrual hygiene products. Sanitary napkins are subjected to a staggering 47.1% tax, significantly higher than taxes on non-essential items, such as gold jewellery, raw silk, golf clubs and golf balls, and even military artillery weapons. Such a high tax rate on sanitary products is an indicator of the socio-economic barriers that women face, contributing to period poverty and the broader issue of gender inequality in access to health products. (Publicfinance.lk, 2022).

Since the 2019 economic crisis that led to the bankruptcy of Sri Lanka, poverty in Sri Lanka has doubled from 2021 to 2022, with 60.5% of households experiencing a decrease in their average monthly income (Department of Census and Statistics, 2023). Moreover, approximately 91% of households have reported an average monthly household expenditure increase. As a result, many Sri Lankans struggle to sustain themselves, let alone their families. With many households cutting down on basic necessities, menstrual health is considered a lower priority, amplifying the vulnerability of women (Dullewe, 2023).

This proposal outlines a plan to set up a production facility for biodegradable sanitary napkins in Sri Lanka, coupled with awareness and educative campaigns. The aim is to address the issue of period poverty by providing sustainable and affordable menstrual products. The paper will be structured as follows: Firstly, I will explain the feminist theoretical framework on period poverty and discuss potential solutions. Then, I will present a business plan for the initiative along with the expected outcomes.

## 2. Theoretical Framework

### 2.1 Problem Analysis & Understanding Period Poverty in Sri Lanka

During article research, I was able to identify a significant void concerning period poverty in Sri Lanka. The literature review revealed only a few research studies or articles dedicated to menstruation and menstrual management in Sri Lanka, some of which were not recent. Furthermore, the area suffers from an acute shortfall in medical research, highlighting the urgent need to understand and address the health implications and broader societal impacts of period poverty in Sri Lanka.

Conducting a thorough problem analysis to understand the context and identify key challenges that menstruators face in Sri Lanka is important. Addressing these challenges can contribute to mitigating period poverty, promoting environmental sustainability, challenging menstrual stigma, and advancing gender equality in Sri Lanka.

Period poverty remains a pressing issue in Sri Lanka, particularly affecting individuals from low-income households and marginalised communities, who often lack access to affordable and hygienic menstrual hygiene products. Gender is a significant factor in determining how people experience their menstruation, have access to resources, and make decisions about it. Gender is not inherent but rather socially constructed, meaning that it is shaped by societal norms, expectations, and cultural beliefs rather than biological differences alone. In Sri Lanka, as in many societies, gender norms significantly shape individuals' roles, behaviours, and opportunities. These gender norms also influence perceptions and practices related to menstruation in Sri Lanka. By understanding and incorporating gender analysis into the project, we can identify and reduce gender disparities, promote women's empowerment, and promote inclusivity. In many households, women bear the primary responsibility for managing household tasks, including menstrual health management, while men may lack awareness of how women navigate their menstruation, as I experienced through interviews with men in the Kalutara district of Sri Lanka. By recognizing and addressing these gendered dynamics, we can create an environment that fosters inclusivity, supports women's agency, and promotes equal participation in discussions and initiatives related to menstrual health management. Traditional gender roles may limit women's ability to manage their menstrual health effectively. The patriarchal system of the Sri Lankan society reinforces power disparities that restrict women's agency and ability to make decisions independently, which

in turn worsens inequalities and control over reproductive health, including menstruation. Men, often the primary breadwinners, may not view menstrual products as essential household expenses. The financial reliance of women on these male family members (fathers, brothers or husbands) – lack of financial autonomy – limits their options regarding menstrual health products and practices, ultimately undermining their reproductive health and well-being.

“We hear of a lot of mothers going without their period protection just so they can feed their children and using things such as newspaper stuffed into socks or bread... because they’re cheaper than period products” (Diamond, 2022).

The high cost of sanitary napkins is a significant economic challenge for many women. The average daily wage for a worker is 1000 Sri Lankan rupees (equivalent to USD 3.26) (Gunasekara, 2021). The cost of a pack of 8-10 pads ranges from 12.9% to 53.4% of this daily wage (Figure 2) (Daraz.lk, 2024), making it unaffordable once they have paid for food and bills. This pricing shows the significant financial burden these essential products can place on individuals. The 2022 Economic Crisis has further exacerbated the period of poverty with inflation reaching as high as 73.7% in September 2023 (Al Jazeera, 2022), causing menstrual products to increase in price and import restrictions to decrease availability. (Dullewe, 2023); (Patabendi & Sivakumaran, 2020). Sanitary products may be unaffordable or inaccessible to those from low-income or marginalised communities due to long distances to stores. As a result, marginalised individuals can be more susceptible to reproductive tract infections and other health issues due to insufficient menstrual hygiene practices (Samarakoon et al., 2024).

“In our home, there are four members who have period every month. One packet is not enough for each, and at least two packets are needed for each month. They cost nearly 1000 rupees, and I cannot afford that much for pads. We used to use pieces of clothes at home and use pads for school when they were schooling” (Dissanayake & Bandara, 2021).



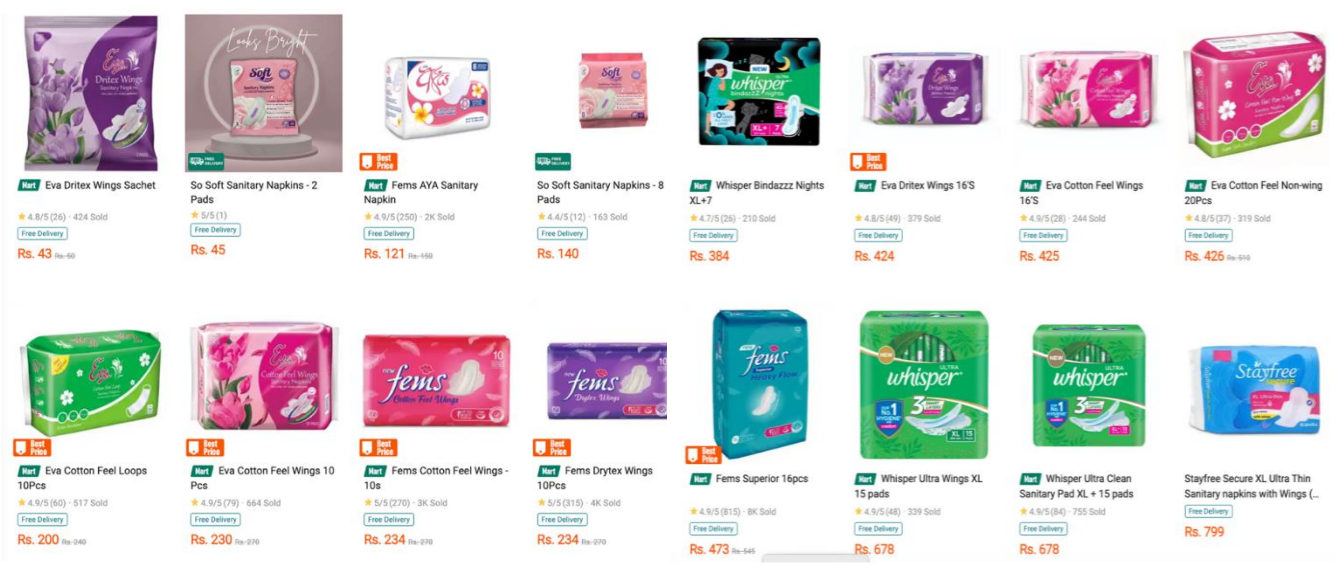


Figure 2: Costs of Sanitary Napkins available in the market in Sri Lanka (Daraz.lk, 2024)

There is also widespread shame, stigmas and taboos surrounding menstruation that are deeply ingrained in our cultural beliefs and societal norms aimed at keeping women and girls subjugated, leading to silence and secrecy, thus making it difficult for individuals to access information and resources related to menstrual health (Samarakoon et al., 2024). It can also have a negative impact on women’s self-esteem, dignity, and mental well-being. As a result, some individuals may resort to using unhygienic or unsafe alternatives, putting their health at risk. Additionally, the taboo surrounding menstruation makes it difficult to have open discussions on the topic, leading to harmful practices being maintained. (Patabendi & Sivakumaran, 2020)

“I have three daughters, and I never let them go outside after 5 in the evening when they have periods. We believe evening and nighttime are not good for unmarried girls and women who have their periods because some invisible demons called “Kalu Kumaraya” can come to them and torture them when their bodies are impure” (Dissanayake & Bandara, 2021).

A survey by the International Water Management Institute (IWMI) 2016 found that 58% of Sri Lankan women reported experiencing difficulties in managing their menstrual hygiene (IWMI, 2016). Studies have found that about 70% of rural Sri Lankan women resort to wearing clothes or rags to manage menstruation (Wickramasinghe & Wijesinghe, 2018); (Samarakoon et al., 2024). Cloth rags have low absorbency and, therefore, cannot be used for an extended period of time. They must be washed and dried under direct sun to prevent the growth of germs. However, many women tend to dry these clothes in places like cupboards due to social stigmas. This can lead to the growth of moulds, which can cause infections. This practice exacerbates gender inequality, limits educational and economic opportunities for women and girls, and contributes to negative health outcomes.

The absence of comprehensive menstrual health education in Sri Lankan schools and communities poses another significant challenge, contributing to misconceptions, misinformation, and inadequate menstrual hygiene practices (Patabendi & Sivakumaran, 2020). Without proper education on menstrual health, individuals may struggle to understand their bodies' natural processes, leading to stigma, shame, and discomfort surrounding menstruation (Samarakoon et al., 2024). This lack of education also inhibits informed decision-making regarding menstrual hygiene products, practices and reproductive health, potentially resulting in negative health outcomes.

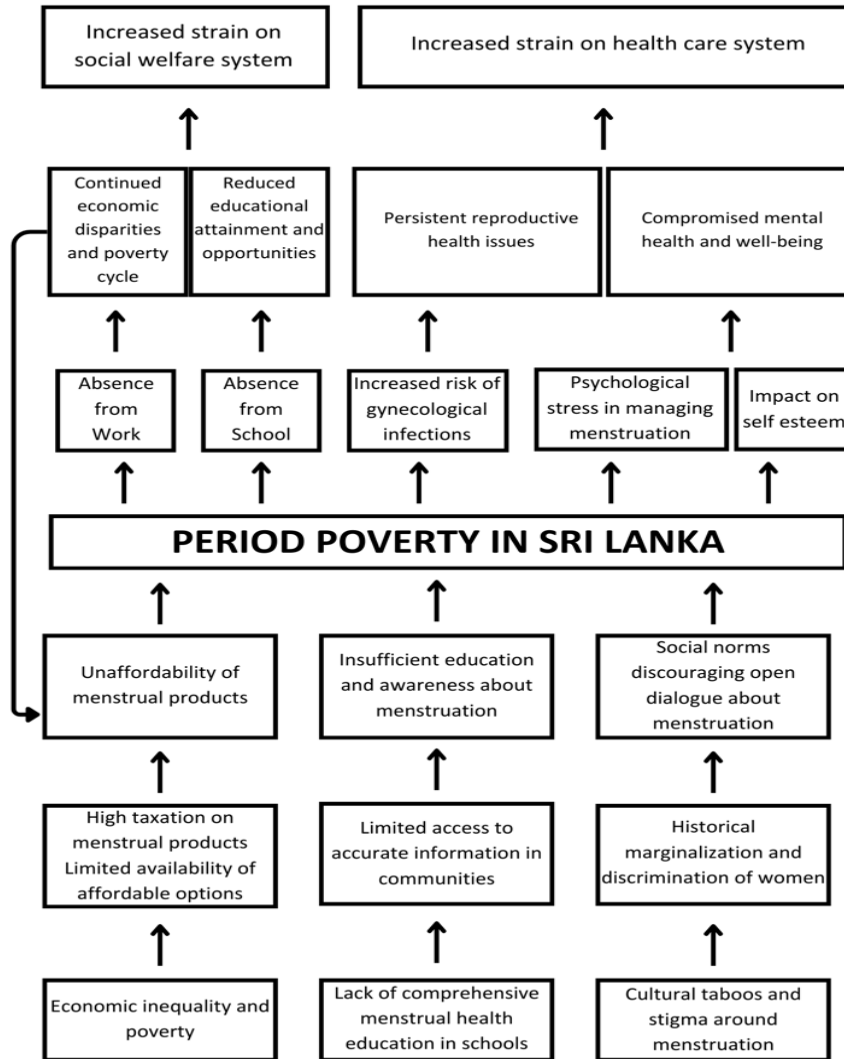


Figure 3: Problem Tree for Period Poverty in Sri Lanka

It is just as important to understand the intersectionality of gender with other social categories in Sri Lanka, such as caste, ethnicity, class, disability and geography. Women belonging to marginalized groups, including rural and low-income backgrounds, may face difficulties in accessing menstrual health and hygiene products and services due to intersecting forms of discrimination and disadvantages. For example, women in rural areas may have limited access to education, healthcare services and economic opportunities; those from lower castes or ethnic minorities may face social exclusion, racism, discrimination and low-paying jobs (Samarakoon et al., 2024). Ethnic minorities, especially those in the conflict-affected regions in the North and East and plantation estates in central Sri Lanka, face increased difficulties in accessing essential healthcare services and products, including sanitary napkins, for the same reasons (Hansen, 2022).

“In this home, there are two families living together. My mother has been abroad for five years, and my father works in Colombo. I am 16 years old, and I don’t have a separate room at home. At least there are no proper doors in any room. When I get my period, it is difficult to change pads comfortably without a proper space. Feel to leave this home and go to a friend’s home” (Dissanayake & Bandara, 2021).

People with disabilities, including physical, sensory, and cognitive impairments, face difficulties in accessing and using conventional menstrual hygiene products. Challenges can include difficulty handling, changing, or disposing of sanitary pads independently. As a result, disability-related barriers increase the existing challenges in menstrual hygiene management, contributing to social exclusion, health risks, and diminished quality of life for individuals with disabilities. Therefore, these intersecting differences in accessing menstrual health resources lead to more period poverty and worsen disparities in health outcomes.

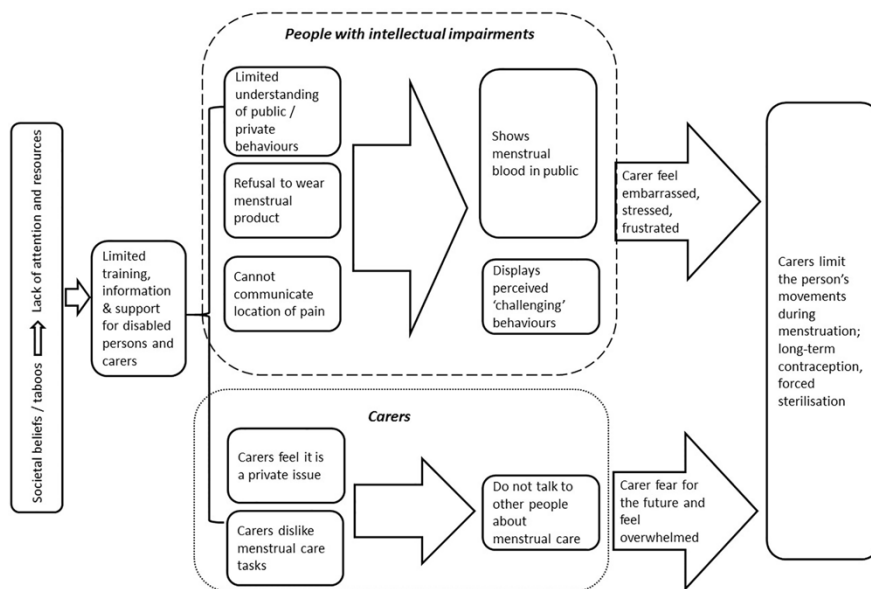


Figure 4: Issues of menstruation management in people with intellectual impairment and their carers

There has also been a noticeable rise in the number of households where women are the head of the household (Jayasinghe, 2019). This increase can be attributed to several factors, such as deaths resulting from military missions, job-related migration, and job loss due to the economic crisis. These women often face social and cultural discrimination and, as a result, struggle to find work and access economic resources. Consequently, their income may be lower, and they may find it challenging to afford menstrual products (Samarakoon et al., 2024)

Women are also disproportionately affected by environmental pollution and climate change. Therefore, the intersection between gender and environmental sustainability must be considered when addressing period poverty. Conventional menstrual hygiene products, like plastic-based sanitary napkins, contribute significantly to environmental pollution through landfill pollution, water contamination, and ecosystem degradation. (Nair & Nair, 2021). The widely available plastic-based sanitary napkins cause environmental pollution as they are non-biodegradable. Improper disposal of these products can harm the environment and human health through landfill pollution, water contamination, and ecosystem degradation. (Nair & Nair, 2021). Access to sustainable menstrual hygiene products is a significant challenge in Sri Lanka, even though people are becoming more aware of environmental issues, where they are only available through online stores and at a considerably higher price. As a result, many individuals, particularly those from marginalized communities, are unable to access affordable and sustainable sanitary napkins and other eco-friendly options. This limited access perpetuates reliance on high-cost conventional menstrual products.

## 2.2 Recommended Solutions

Throughout the literature related to period poverty in Sri Lanka, a few solutions are offered to reduce or eliminate it. These involve educational initiatives, community engagement, and policy reforms to ensure that menstrual products are easily available. Educational programs can help improve school sanitary facilities and integrate menstrual health management into the school curriculum to normalise menstruation and combat stigma and misinformation (Goluhewage, 2023). This will lead to better mental and emotional well-being for menstruators. Changing the community's perception and attitude can also help create a more supportive environment for discussing and managing menstruation, which can lead to better health outcomes for women (Goluhewage, 2023). Another solution is to make period products available in public washrooms and schools. The government can collaborate with NGOs and the private sector to distribute free sanitary products in schools and communities (FreetoFlow, 2020). Reducing or eliminating taxes on sanitary products can also make them more affordable and reduce the financial burden on families. These solutions will increase usage and improve women's health and hygiene, reducing the risk of infection and other health complications (FPA Sri Lanka, 2024). When economic and accessibility barriers are reduced, more girls are likely to attend school regularly, school dropout rates will be reduced, and women will be able to participate in economic activities fully, promoting gender equality and empowerment.

## 3 Business Plan for Low-Cost Sanitary Napkin Production Facility

### 3.1 Introduction

In order to address the acute issue of period poverty, which includes the high cost and limited availability of sanitary products, as well as low knowledge about menstrual health and hygiene, my proposal is to establish a sustainable, low-cost biodegradable sanitary napkin production plant in Sri Lanka coupled with awareness campaigns on SRHR with particular emphasis on menstrual health and hygiene. These napkins will be manufactured using biodegradable materials such as banana pseudo-stems, a waste product of banana cultivation.

In many respects, the project reflects our dedication to women's empowerment and gender mainstreaming. Gender inclusivity in product design guarantees that sanitary napkins accommodate anatomical differences, preferences, and flow rates. This is essential in addressing Sri Lankan women's unique menstrual health experiences. Marketing and distribution strategies will be tailored to be gender-responsive, using storytelling and community engagement in order to ensure that the products are accessible in rural areas. The sanitary napkins will be accessible through tiered pricing and subsidies, with packaging in multiple languages and clear information to empower informed choices about menstrual health. In order to better assess our impact and develop inclusion policies, gender-focused metrics will be incorporated into the budgeting, monitoring, and evaluation processes.

The initiative also centres on social inclusion, prioritizing diversity within the community it serves by ensuring everyone, especially marginalized and underserved groups, benefits from and contributes to the project. This includes a strong emphasis on fair employment practices, actively seeking to recruit individuals from marginalized groups such as women, youth, LGBTQIA+ individuals, persons with disabilities, and ethnic minorities, with an inclusive and transparent hiring process. Initiatives will be designed to involve these groups as stakeholders and community leaders as well. To achieve economic empowerment, comprehensive training programs will be provided that focus on developing skills and financial literacy to enhance soft skills, leadership and technical knowledge. Cultural intelligence training for all employees will support a respectful work environment while communications respect Sri Lanka's diverse cultural background. We would source raw materials from the local community to strengthen local economies and reduce reliance on external or international suppliers.

The facility will be designed using universal principles to be accessible and inclusive. In order to reach rural areas, awareness programmes will be centred around workshops, focus groups, and digital media, working closely with local community leaders, influencers, and organisations. The sessions will also examine how colonial history has affected women's rights and health and talk about how improving people's access to menstrual health information may reverse historical oppression, empower individuals, and promote equity for women and girls in the community.

Environmental justice and the preservation of lands and resources shall also be prioritised. This involves ensuring that the production procedures respect ecological sustainability and cause the least harm to the environment. It also entails interacting with community members and environmental activists in the area to discuss environmental issues and advance sustainable methods for making and distributing sanitary napkins.

In addition, the project will offer capacity building in the areas of gender equality and sexual and reproductive health and rights (SRHR), including educational initiatives that challenge taboos, myths and stereotypes and advance gender sensitivity. This knowledge is power—it leads to better health outcomes and reinforces women's well-being as a right, not a privilege.

Sri Lanka was a European colony (Portuguese, Dutch and British) for over 351 years. This has led to colonial ideas being deeply entrenched in society and state laws. Decolonization ideas must thus be incorporated in order to promote local autonomy through the confrontation and destruction of colonial systems. This is consistent with larger movements for social justice and equity, where marginalised populations are given opportunities in order to improve economic empowerment and gender equity and lessen gaps exacerbated by colonial legacies.

This project has the potential to significantly alleviate the problems Sri Lankan women encounter with their periods, promote social empowerment, and boost the local economy. Through this project, I envision a future where inclusive growth and sustainable methods are used to promote the health, dignity, and ability of Sri Lankan women to make their own choices. The project creates sustainable social and environmental benefits by combining social impact with financial viability.

Overall, the project is in line with several United Nations (UN) Sustainable Development Goals (SDGs). They are SDG 3, Good Health and Well-being; SDG 5, Gender



Equality; SDG 8, Decent Work and Economic Empowerment; SDG 10, Reduced Inequality; SDG 12, Responsible Consumption and Production and SDG 13, Climate Action. (Appendix 1)

### **3.2 Project Justification & Purpose**

Access to menstrual hygiene products is a fundamental human right and essential to gender equality, reproductive health, personal hygiene, the prevention of infections, and the promotion of overall health and well-being. Yet, in Sri Lanka. The absolute period poverty is estimated to be 50%, i.e., around half of the households with menstruating women had not reported buying sanitary napkins as part of their household expenditure (Advocata Institute, 2021). A significant number of people, particularly those from low-income families and marginalised communities, do not have access to affordable and hygienic menstrual hygiene products. According to a study, more than one in three girls miss school due to a lack of access to sanitary napkins, toilets, or a combination of the two (Banerji, 2018). Myths and misinformation regarding menstruation are also prevalent in society, mainly due to the lack of proper menstrual health and hygiene education coupled with social stigma and shame (Patabendi & Sivakumaran, 2020). This prevalence of period poverty highlights the urgent need for sustainable solutions. To tackle these issues, this project aims to establish a production facility for biodegradable, low-cost sanitary napkins that will provide a sustainable and cost-effective solution for menstruating individuals coupled with awareness campaigns, promoting environmental sustainability, supporting economic development, advancing gender equality, fostering innovation and enhancing public health. Through this initiative, we would be able to address barriers to education, employment, and overall well-being faced by menstruating individuals.

The current market pricing for menstrual pads is primarily based on their level of absorbency and comfort. Ultra-thin and dry texture pads, while being the most affordable options available, are often found to be the least comfortable. This discrepancy highlights a gap in the market for products that can bridge the divide between cost and comfort, offering an optimal blend of affordability and user satisfaction.

Conventional menstrual hygiene products, such as plastic-based sanitary napkins, contribute to environmental pollution and waste accumulation due to their non-biodegradable nature and decompose in 500-800 years (RealRelief, n.d.). There is also

growing demand among consumers for eco-friendly and sustainable products, including menstrual hygiene products. The project will produce biodegradable sanitary napkins as an alternative to conventional menstrual hygiene products, minimising plastic waste in landfills and oceans and catering to environmentally conscious consumers.

The government curriculum on menstrual health and hygiene is also included in a book for physical activities. There have been many reports of teachers shying away from teaching these essential topics in schools or asking students to read them at home, suggesting that they are not considered important topics. This cycle of lack of education and social stigma/shame has made discussions or questions regarding menstruation at home non-existent (Patabendi & Sivakumaran, 2020). Therefore, there is an urgent need for education/awareness workshops as well to educate and empower girls and women, breaking the generational silence on menstruation.

### 3.3 Objectives

The main objective of this project is to provide affordable and high-quality sanitary napkins to women in Sri Lanka to empower and give them control over their own lives. The specific objectives are as follows:

- Establish a production facility for sanitary napkins that utilises locally available biodegradable materials and resources.
- Produce sanitary napkins that meet the required quality standards.
- Develop a sustainable business model for the production and distribution of sanitary napkins.
- Create employment opportunities for women in the production facility and the distribution network.
- Promote awareness about menstrual hygiene and the importance of using sanitary napkins.

### 3.4 Expected Outcomes

The expected outcomes are focused on health, environmental sustainability, economic empowerment, gender equality, and community well-being, to address period poverty in Sri Lanka. These outcomes are interconnected and mutually reinforcing, contributing to positive change at individual, community, and systemic levels. By focusing on these interconnected and mutually reinforcing outcomes, we aim to achieve positive change at individual, community, and systemic levels. Our efforts are to tackle period poverty and promote a holistic and sustainable approach to menstrual health and hygiene.

- Improving access to affordable and high-quality sanitary napkins
- Increasing awareness and enhancing menstrual health and hygiene practices among women.
  - through educational workshops, awareness campaigns, and community outreach activities, leading to reduced risk of infection, greater menstrual comfort, and improved well-being.
- Providing job opportunities for women in both the manufacturing plant and the distribution channels.
  - Preference will be given to women and marginalized persons in the local community. This promotes economic empowerment, entrepreneurship, and local growth.
- Using eco-friendly and sustainable business models for the production and distribution of sanitary napkins.
  - This will reduce the environmental impact.
- Enhancing Gender Equality and Social Inclusion

### 3.5 Social Enterprise Model

The facility and its business will operate as a ‘Social Enterprise’, i.e. as listed by the Social Good Stuff,

1. “A social enterprise is a business venture that trades to achieve a social outcome and generate enough income to cover its running costs. While these businesses operate like any other, aspiring to the highest commercial and service standards, difference in that serving the community is their priority” – Mission Australia
2. “Social enterprise (n.): a business that directly addresses a social need either through its products and services or through the people it employs.” – Social Enterprise Cincy
3. “A social enterprise is an organisation that makes intentional positive social or environmental impacts using a sustainable business model.” – The Difference Incubator

Sanitary napkins will be sold at a minimum cost, just covering the operational expenses. As depicted in Figure 5, profits will be reinvested in expenses, awareness workshops, and employee bonuses to achieve positive changes at the individual and community levels.

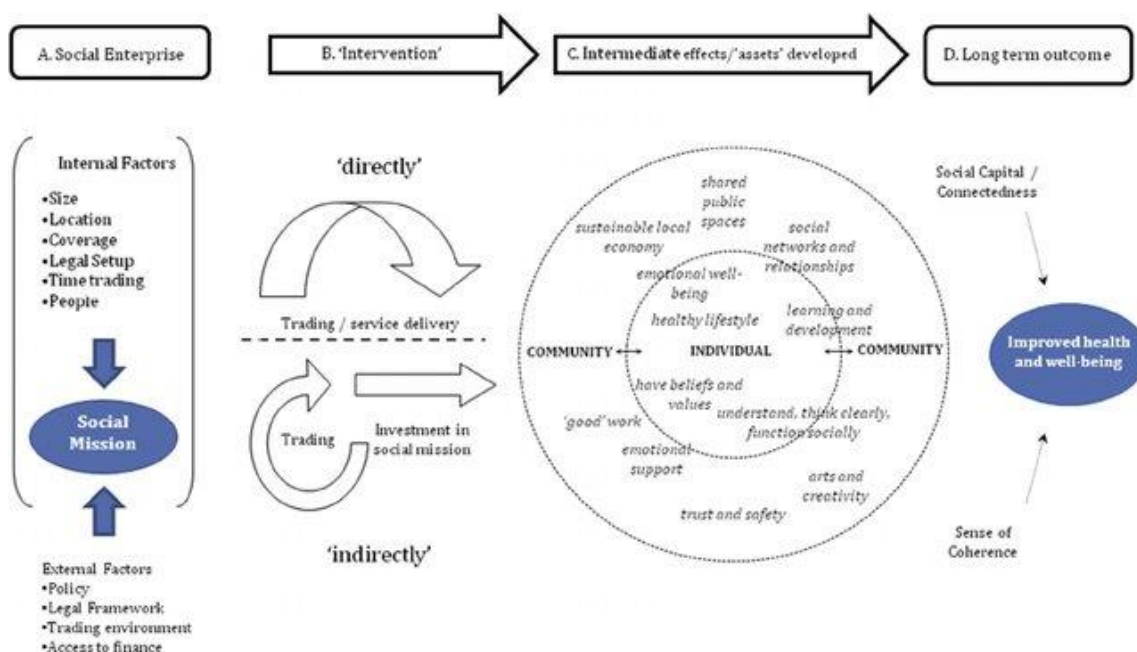


Figure 5: Conceptual model of social enterprise

### 3.6 Circular Economy Model



Figure 6: The circular economy model (European Parliament, 2023)

This project is a good example of how the principles of a circular economy can be applied in practice, as depicted in Figure 6. Locally sourced and biodegradable materials such as banana fibre (pseudostem) will be used to reduce reliance on non-renewable resources, thus minimizing the environmental footprint. The use of compostable raw materials in biodegradable sanitary napkins quickly reduces long-term waste accumulation and promotes soil health through composting processes. Locally sourcing not only supports the local economy but also reduces the environmental impacts of transportation or importing, reducing carbon emissions. The project sets an example of how localized production and waste reduction can positively impact a community's health, economy, and environment.

### 3.7 Banana Pseudo-Stem As A Raw Material

This project aims to innovate in sustainable sanitary napkin production by considering the use of banana pseudo-stems, a substantial agricultural by-product in Sri Lanka, as a possible raw material in making them biodegradable. According to 2018 statistics, Sri Lanka produces roughly 652,740 metric tonnes of bananas per year (Department of Agriculture, 2018). Given that about 60% of the banana biomass is the pseudo-stem (Castillo et al., 2023), that would account for 979,110 metric tonnes of pseudo-stems ending up as waste. Drawing inspiration from global practices where banana fibres serve as raw materials for biodegradable sanitary products (refer to section 3.10.2), we plan to adopt a similar approach, turning waste into a valuable resource for eco-friendly sanitary solutions.

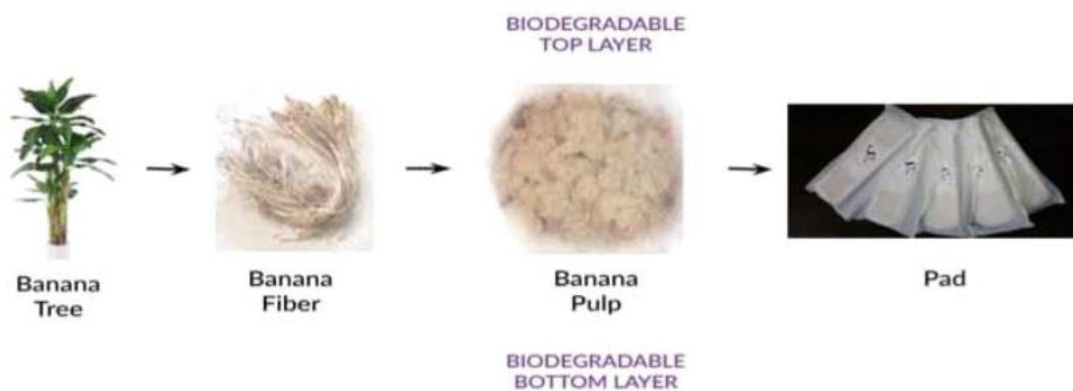


Figure 7: Steps from extracting banana fibres from pseudo-stem to make sanitary pads (Nair & Nair, 2021)

### 3.8 Introduction To Arka Initiative

The Arka Initiative, which I represent here at GRO GEST, is a Sri Lankan grassroots organisation dedicated to improving sexual and reproductive health (SRH). Led by skilled young professionals and advised by experts from various fields, the organisation aims to enhance SRH knowledge and address related rights issues. Their work includes providing SRH education, facilitating medical professional access, fostering inclusive dialogues, and distributing reusable sanitary pads. Therefore, the proposed sustainable sanitary napkin facility is a natural extension of Arka Initiative's mission and expertise. (Arka Initiative, 2023)

### 3.9 Introduction To Safe Circles



Figure 8: A few slides of the English, Tamil and Sinhala presentation on Menstrual Health (Safe Circles, 2023)

In Sri Lanka, a cultural silence on sexuality has forced youth to self-educate on sexual health, often through unreliable sources. Health science teachers or parents would avoid discussions on reproduction, reflecting a culture where topics like 'love, sex, and sexuality' are uncomfortable and comprehensive sexuality education (CSE) is taboo. (Dissanayake, 2023) This lack of formal CSE has left many ill-prepared to understand their bodies and sexual health adequately.

Safe Circles ([www.safecircles.lk](http://www.safecircles.lk)) was formed after its founders, Mihitha Basnayake, Ayesha Ratnayake, and Nabila Imtiaz, collectively realised that transformative social reform in Sri Lanka centres on educational empowerment and to address the lack of sexual health education in Sri Lanka, using best practices and expert advice to develop resources that promote informed community discussions and impactful learning. (Safe Circles, 2023). The resources from Safe Circles will be used in this project to deliver accurate information and debunk misconceptions.

As a resource person for Safe Circles, I have conducted many workshops around Sri Lanka on various topics, including menstrual health and hygiene. Therefore, I have the knowledge and experience to conduct and train others to conduct these workshops as part of the project.

### 3.10 Problem And Stakeholder Analysis

#### 3.10.1 Conventional Products in-use in Sri Lanka

It is important to understand the use of conventional menstrual hygiene products in to understand the context within which the sustainable biodegradable sanitary napkin production facility would operate in Sri Lanka. Through my extensive work conducting education sessions on menstrual hygiene across diverse communities in Sri Lanka, schools in Colombo, plantation estates and schools in Ratnapura and Kalutara, churches in Chilaw, and interviews conducted in Kalutara, I have found critical insights into the challenges faced by women and girls regarding menstrual hygiene management.

Single-use sanitary napkins available in stores in Sri Lanka are non-biodegradable, contributing to waste accumulation in landfills and waterways (Samarakoon et al., 2024). Proper waste management is often absent in rural areas, leading to sanitation and hygiene issues that are exacerbated by the disposal of used napkins. Individuals are forced to burn, which releases toxic fumes, or bury them underground where wild animals can dig them out.

Reusable menstrual products, such as pieces of cloth, cloth pads and menstrual cups, can be used multiple times over a long period of time, thereby reducing waste generation and being environmentally friendly as well as cost-effective. However, to use these products clean water, soap, and washing and sanitizing are required, which is a challenge in resource-limited rural areas. Some women also find them to be inconvenient or uncomfortable to use. Once used, the cloth pads must be washed properly and dried under direct sun to prevent the growth of harmful germs. Many women, especially school children, do not prefer to touch discharged blood during cleaning (Samarakoon et al., 2024). This is mainly due to cultural taboos and societal stigmas, as well as a lack of understanding about menstruation, which can cause feelings of shame and embarrassment (Hemachandra & Manderson, 2009); (Samarakoon et al., 2024). Many women are also reluctant to hang washed pads openly to dry due to fear of judgment and shame, instead drying them in closed spaces like cupboards, increasing the risk of mould growth and subsequent infections. Furthermore, deep-rooted cultural myths about the hymen and virginity and the fear of inserting objects into the vaginal canal has made menstrual cups and tampons the least popular product among Sri Lankan women. Most reusable sanitary products are only available in and around the capital of



Colombo or through online orders and are expensive (littlemiss.lk, 2024), making them inaccessible to rural areas.

Sustainable menstrual products made of organic cotton pads or bamboo fibre (imported) are available in Sri Lanka, although import restrictions following the 2022 economic crisis have limited their availability (lily\_srilanka, 2024). They are expensive and may be inaccessible to many individuals, particularly those from low-income or rural communities as they are primarily sold through online stores or Instagram pages.

Outdated menstrual practices, such as using dry leaves or paddy straw, are still practised in some rural areas of Sri Lanka. They fail to offer sufficient protection or hygiene. Moreover, they can pose risks of infections and reproductive complications (Samarakoon et al., 2024). These practices further contribute to menstrual stigma and may obstruct women's participation in daily activities (Hemachandra & Manderson, 2009).

Many factors contribute to unequal access to safe and hygienic menstrual products across different socioeconomic statuses. These factors include deep-seated beliefs, fear of adopting alternative menstrual hygiene products, reliance on less effective methods of managing menstruation, negative attitudes towards menstruation, limited availability, and high costs of both sustainable and conventional menstrual products. These issues need to be addressed in order to promote menstrual health and hygiene and ensure equitable access to menstrual solutions for all.

### 3.10.2 Similar Products Around the World

In addition to the proposed project, various initiatives and companies across the Global South are dedicated to manufacturing biodegradable disposable pads. These ventures reflect a growing awareness of environmental sustainability and a rising demand for eco-friendly menstrual products within the region. These projects can serve as sources of inspiration and potential collaborative partners for this project. These enterprises demonstrate innovative approaches to producing biodegradable sanitary pads using locally sourced materials such as banana and bamboo fibres. Their commitment to creating products free from harmful chemicals and plastics promotes menstrual health and champions environmental sustainability. (Hand et al., 2023)

- Saathi (India): Saathi is a social enterprise located in India that manufactures biodegradable sanitary pads utilizing banana fibre. (Saathi, n.d.)
- Niine (India): Niine produces affordable and eco-friendly biodegradable sanitary napkins, prioritizing both women's health and environmental sustainability. Their superior-quality napkins are crafted with compostable, biodegradable materials from ingredients to packaging, ensuring they break down easily and are safe for users and the environment. (Niine, n.d.)
- Lilypads (Uganda): LilyPads introduces affordable, highly absorbent, and biodegradable sanitary pads, utilizing the Water Hyacinth plant as its primary resource. (Lockley et al., 2014) (LilyPad, n.d)
- MakaPads (Uganda): MakaPads represent a breakthrough in menstrual hygiene with their natural absorbent material and high absorption capacity, all while being chemically free. They are designed to minimize the filling of pit latrines, particularly in school settings. (Makerere university, 2017)
- Go! Pads (Rwanda): SHE (Sustainable Health Enterprises) is dedicated to empowering young women in Rwanda through the production of affordable menstrual pads made from banana fibre. (koolgirlposse, n.d)

### 3.10.3 Strategic & Operational Planning

#### *Strategic Planning:*

**Vision Statement:** To create a future where every Sri Lankan has access to affordable, sustainable, and dignified menstrual hygiene solutions, fostering health, equality, and environmental sustainability.

**Mission Statement:** To establish a sustainable biodegradable sanitary napkin production facility in Sri Lanka, address period poverty, promote environmental sustainability, support economic development, advance gender equality and enhance public health and hygiene.

#### SWOT Analysis

A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis can be used to identify internal strengths and weaknesses and external opportunities and threats to make informed strategic priorities, risk mitigation strategies, and resource allocation decisions. (GRO GEST Project Development Module, 2024). (Appendix 4)



Figure 9: SWOT Analysis mind map

### *Operational Planning:*

Operational planning is also critical when establishing the production facility. The operational planning phase includes various key aspects, including facility setup and infrastructure development, which involves procuring equipment, machinery, and materials, and designing the facility layout for workflow efficiency, safety, and compliance. Optimizing procurement, production, and distribution processes requires reliable partnerships to source raw materials, equipment, and packaging materials, and implement inventory management systems to optimize procurement, production, and distribution processes. Production processes and quality control measures also need to be developed, including standardized operating procedures (SOPs) to ensure consistency, safety, and regulatory compliance of the biodegradable sanitary napkins. Human resources management focuses on recruiting and training qualified staff for various roles, promoting a positive work culture that values diversity, equity, and inclusion.

The development of marketing and sales strategies is to ensure many try and continue using the sanitary napkins, increase brand and health awareness, and promote biodegradable sanitary napkins. To effectively reach target audiences, this means utilizing social media platforms, digital marketing channels, conventional marketing and smart collaborations. In order to ensure that biodegradable sanitary napkins are widely accessible across various geographic regions and demographic segments, well-planned distribution and logistics are important. This can be accomplished by establishing distribution channels that include retailers, pharmacies, e-commerce platforms, and community organizations. To facilitate data-driven decision-making and continuous improvement processes, monitoring and evaluation strategies should be developed. These should include key performance indicators (KPIs) and monitoring frameworks to track progress, measure impact, and assess the efficacy of operational strategies and interventions.

By integrating strategic planning with operational planning, we can successfully translate the vision and goals into actionable strategies and initiatives. This integration will, in particular, help reduce period poverty and promote menstrual health and sustainability in Sri Lanka by ensuring successful implementation and long-lasting effects of the initiative.

### 3.10.4 Theory of Change

The biodegradable sanitary napkin production facility and comprehensive Sexual and Reproductive Health and Rights (SRHR) education workshops aim to transform the menstrual experience of Sri Lankans. Through this initiative, we can reduce the financial, cultural, and logistical barriers currently hindering menstrual health management.

Firstly, locally manufacturing biodegradable sanitary napkins reduces costs, making them affordable for people across different socioeconomic backgrounds. By making pads widely available in local stores, barriers to accessibility are eliminated. This provides a sustainable and dignified solution for menstrual health management, empowering women.

Secondly, the SRHR workshops will challenge entrenched cultural myths/taboo and misinformation. Community and religious leaders will also be involved in these conversations to utilize their influence over the communities to promote positive shifts of thoughts and ideas. Providing these sessions to women and men in their native languages (Sinhala, Tamil or English) and respecting their cultural identities will ensure that the information is received openly. Furthermore, we acknowledge and address the intersectionality of gender with caste, ethnicity, class, disability and geography. Adapting the approach to these intersecting identities ensures that the most marginalized individuals will get the support they need.

The biodegradable sanitary napkins make menstrual health management environmentally sustainable and reduce the ecological footprint of the production facility.

These efforts aim to reduce period poverty and enable women and girls to fully participate in all aspects of their lives. By ending the cycle of stigma and shame, advancing gender equality, and encouraging environmental stewardship, these efforts will help create a more inclusive and equitable future for all Sri Lankans.

### 3.10.5 Stakeholder Analysis

It is important to identify and understand the diverse individuals, groups, and organizations who may be interested in or impacted by the initiative. This ensures that the project aligns with the needs and priorities of the local community, leading to successful implementation and long-term sustainability.

Stakeholder Group	Interest in the Project	Potential Impact	Power/ Influence	Strategy for Engagement	Rights	Responsibility	Returns	Relationships
Government Agencies (Ministries of Health, Education, Environment, Industry and commerce and local government authorities)	Regulatory compliance, public health, and industrial development	Approvals, permits, infrastructure support, Regulation and compliance	High	Policy dialogue, compliance with standards	Enforce regulations, set standards	Provide infrastructure or regulatory, support, enforce compliance	Economic growth, public welfare, Trust in the marketplace	Partnership, regulatory, oversight, authoritative
<b>Non-Governmental Organizations (NGOs) – Women’s health &amp; rights, CSOs</b>	Gender equality, sustainability, community engagement and welfare	Partnership in outreach and education	Medium	Collaboration, shared goals	Advocate, educate	Support community engagement	Social impact	Collaborative, supportive
<b>Industry Partners – Suppliers, distributors, retailers</b>	Business, market growth	Supply chain and market development	Medium	Networking, partnership agreements	Fair business practices	Supply quality products	Market share	Professional, interdependent
<b>Community Members – Women, girls, LGBTQIA+ individuals, families, caregivers</b>	Access to affordable and sustainable products	Primary beneficiaries	Low	Community engagement	Receive quality products	Provide feedback	Health, well-being	Inclusive, engaged
<b>Investors and Financial Institutions – Private investors, CSOs</b>	Social impact	Funding, financial support	High	Investment pitches, financial reporting	Transparency in operations	Financial advice	Social Impact	Formal, transactional
<b>Academic and Research Institutions</b>	Research opportunities, innovation in sustainability	Research collaboration, product development	Medium	Joint research projects, internships	Access to data and findings	Contribute expertise	Knowledge, innovation	Cooperative, academic
<b>Media Outlets and Social Media Influencers</b>	Public awareness, Story- telling, audience engagement	Influence public opinion and awareness	Medium to High	Media campaigns, influencer engagement, Press releases	Report accurately	Raise awareness	Audience reach, content	Communicative, influential

Table 1: Stakeholder Analysis

### 3.11 Communication and Advocacy Strategy

A communication and advocacy strategy is also important in our project, which aims to increase knowledge and awareness, change harmful societal norms, and encourage inclusive behaviours that respect and support the rights and well-being of people of all genders and socioeconomic backgrounds. It is important to promote inclusive behaviours that respect and support the rights and well-being of people from all genders and socioeconomic backgrounds. The primary goal is to increase awareness about menstrual health, encourage using biodegradable sanitary napkins and dispose of used pads properly, and cultivate gender equality and social inclusion throughout Sri Lanka.

#### **Target Audience**

- Women and girls of reproductive age
- Men and boys as supportive allies
- Community/religious leaders and influencers
- Educators
- Healthcare providers
- Government officials and policymakers
- Civil society organizations and NGOs
- Local media outlets and journalists

#### **Key Messages**

- Menstrual health is a vital part of reproductive health and should be openly discussed.
- Access to affordable and sustainable menstrual products is a fundamental human right.
- Biodegradable sanitary napkins are both user-safe and environmentally friendly.
- Biodegradable sanitary napkins are not just a product but a choice that empowers women to take control of their health and environmental impact.
- Adopting biodegradable sanitary products significantly reduces environmental waste and pollution

- Investing in menstrual health is investing in the broader health of the community, as it affects numerous aspects of life, from education to work participation.
- Open conversations about menstruation should be encouraged to dismantle the silence and build an informed and supportive society.
- The involvement of men and boys is crucial in supporting menstrual health and combating associated stigmas.
- Improving menstrual health and well-being requires a strong commitment to gender equality and social inclusion.
- Educating future generations about menstruation health is essential to forming inclusive and progressive views.



### 3.12 Solar Electricity System

A low-cost, community-based solar-powered sanitary napkin manufacturing facility provides many advantages. These advantages are critical for community empowerment, sustainability, cost-effectiveness, and dependability.

By switching to solar power, the facility can reduce its reliance on fossil fuels and reduce our carbon footprint. Since fossil fuels provide the majority of Sri Lanka's electricity, solar energy, being a clean and sustainable source, is essential to combating climate change and reducing air pollution. (PUCSL, 2020). This highlights our commitment to environmental sustainability and is in line with global sustainability efforts. It also supports the principles of a circular economy by minimizing waste and reducing the consumption of finite resources, i.e., electricity generated by fossil fuels.

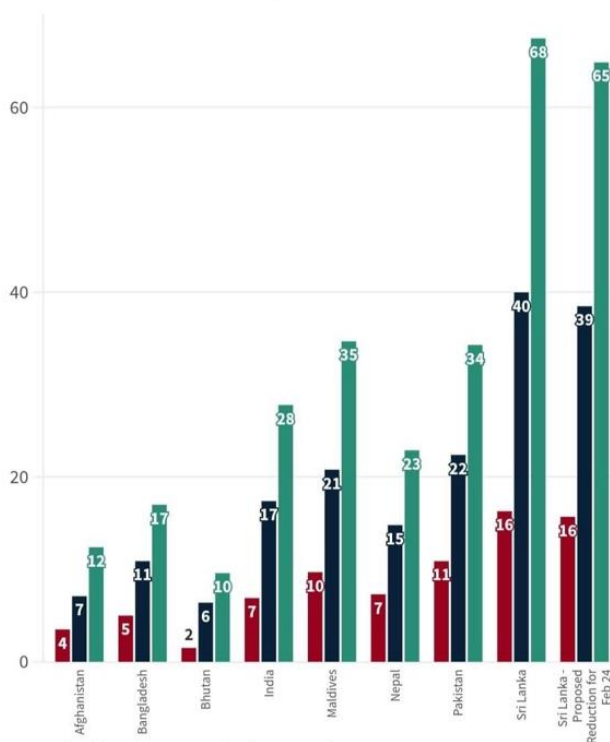
#### Electricity Bills in Sri Lanka: Highest in South Asia

Sri Lankans pay 2.5 to 3 times more for electricity than South Asian neighbours

Currency  In USD  In LKR

■ 100 Units ■ 200 Units ■ 300 Units

Monthly Household Electricity Bill



Source: Electricity Tariff Structures of Relevant Countries  
 Note: USD 1 = LKR 324  
 Note: Electricity bill calculations are done for a single-phase household for December 2023 based on the tariff structures published online by the respective power authorities of each country.



Figure 10: Electricity bill in Sri Lanka compared to South Asian Neighbours (Publicfinance.lk, 2024)

Solar energy offers significant long-term financial benefits for the facility. This way, we can significantly cut down or even eliminate the reliance on expensive, conventional energy sources supplied by the two electricity companies operating in Sri Lanka (Ceylon Electricity Board CEB and Lanka Electricity Company LECO) (Jayasinghe, 2021), and improving service continuity so that operations are unaffected by power outages of any kind (Sharma, 2022), all while contributing positively to the community it serves. We are then able to reinvest these savings to lower the cost of the sanitary napkins produced and awareness workshops as well as women empowerment initiatives. Consequently, this would help make the products more accessible to the community, improving overall public health standards and supporting the socio-economic development of the community.

Integrating solar power into the production facility, especially with limited initial capital, can be challenging. However, there are a few ways that can facilitate the adoption of solar energy. The government of Sri Lanka has been increasingly supportive of renewable energy projects to enhance the country's energy security and meet its environmental goals (Department of External Resources, 2018). Sri Lanka's Sustainable Energy Authority (SEA) and thus offers various incentives for solar power adoption, which include subsidies, tax exemptions, or tax-free loans specifically designed to encourage the use of renewable energy in domestic, industrial, and community projects (SLSEA, 2021). This can provide substantial financial relief and technical support for installing solar panels. Collaborating with solar energy companies is another option that can be a mutually beneficial strategy. By partnering with these companies, we could secure solar panels and installation services at reduced costs, which would minimize upfront expenditures. Some companies might even be interested in a corporate social responsibility collaboration, where they provide solar technology as part of their contribution to community development and environmental sustainability.

### 3.13 Monitoring and Evaluation Framework

A strong monitoring and evaluation (M&E) framework will provide the necessary guidance to evaluate performance, direct decision-making and guide the effective implementation of the facility.

The project objectives should be clearly defined and directly linked to outcomes in menstrual health, environmental sustainability, economic empowerment, and social inclusion. (Appendix 8)

Key performance indicators (KPIs) should be developed and used to monitor progress and achievements. The KPIs should be SMART—specific, measurable, achievable, relevant, and time-bound (GRO GEST project development module, 2024)—to provide a reliable measure of success and inform actionable insights.

Data collection methods should be carefully selected to guarantee accurate and thorough data collection, such as surveys, interviews and focus groups.

Category	Monitoring Activity	Evaluation Activity	Data Collection Methods	Frequency
<b>Implementation Monitoring</b>	Track progress of activities against the timeline	Assess compliance with timelines and production standards	Progress reports, visits to the facility, staff feedback	Monthly
	Monitor resource utilization (budget, materials)	Evaluate cost efficiency and resource optimization (waste reduction)	Financial reports, inventory checks	Monthly
<b>Performance Monitoring</b>	Monitor production quantity and quality	Compare outputs against planned targets	Production logs, quality control tests	Monthly
	Accessibility and affordability surveys	Assess changes in community access to sanitary products	Service delivery logs, surveys, focus group discussions	Six Monthly
<b>Impact Evaluation</b>	Baseline and follow-up studies on Period Poverty	Assess long-term impacts on menstrual health and hygiene practices	Surveys, interviews, focus groups	Annually
	Community health impact studies	Evaluate improvements in community health and hygiene awareness	community health surveys, focus group discussions	Annually
<b>Sustainability Evaluation</b>	Life Cycle Assessments (LCA) <sup>1</sup> (Ilgin & Gupta, 2010)	Evaluate the environmental impact of the production facility	Environmental impact assessments, compliance checks	Annually

<sup>1</sup> “Life cycle analysis (LCA) is a method used to evaluate the environmental impact of a product through its life cycle encompassing extraction and processing of the raw materials, manufacturing, distribution, use, recycling, and final disposal.” (Ilgin & Gupta, 2010)

	Economic impact assessments	Assess project's economic impact on local communities	Economic surveys	Every 2 years
<b>Data Management and Reporting</b>	Digital tools for real-time data entry	Prepare and review M&E reports detailing results	Digital data collection tools, reporting software	Quarterly
<b>Stakeholder Engagement</b>	Regular Community meetings and feedback mechanisms	Evaluate stakeholder satisfaction and engagement	Community meetings, feedback forms, interviews, surveys	Annually
<b>Adjustments and Learning</b>	Annual workshops to share lessons learned	Adjust project strategies based on M&E findings and external changes	Project review meetings, strategy revision sessions, workshop feedback	Annually

Table 2: Monitoring and Evaluation Framework

### 3.14 The Future

If the project succeeds and funding is available, I would like to establish multiple production facilities in Sri Lanka's poorest regions. Additionally, I plan to expand my awareness-raising workshops.

Initially, I had a grander and more complicated vision for the project. I aimed to build a safe house for victims of intimate partner violence along with a sanitary napkin production facility and awareness campaigns. The house would provide legal and psychological support, as well as necessary assistance for reintegration into society. Currently, no such program exists in Sri Lanka, but it is an option to consider in the future.

I would also like to unite all organizations that work towards ending period poverty in Sri Lanka. By sharing resources and expertise, we can become more effective in our mission.

## 4. Conclusion

Despite Sri Lanka having one of the highest literacy rates and excellent maternal and child healthcare services in the region, menstruation remains a societal taboo, not discussed openly and does not receive enough attention from those in power. Key issues for this include lack of awareness about sexual and reproductive health, misinformation, social stigma, inadequate sanitation facilities, low family income levels, lack of access to sanitary products, insufficient education about menstruation, cultural beliefs, and restrictions during menstruation, where menstrual management is heavily influenced by social, cultural, economic, and educational factors.

Establishing an affordable and eco-friendly production facility for sanitary napkins in Sri Lanka is not just about empowering women. It's a crucial step towards environmental sustainability, ensuring that menstruation does not hinder their progress in life while also reducing our ecological footprint.

This initiative has highlighted the many challenges women face due to the inaccessibility of menstrual hygiene products. It strives to bridge economic viability with environmental sustainability by sourcing local, biodegradable raw materials. Awareness workshops will challenge cultural taboos and social stigmas, promoting more open conversations around menstruation. The project aims to improve health, increase dignity and access to opportunities hindered by the physical and societal constraints of menstruation.

Integrating sustainable practices with public health, developed as a social enterprise model, can easily be replicated where local resources and commitment to advocacy can address gender inequality and environmental degradation.

Through the lens of this project, I see a future where Sri Lankan women's health is prioritised, their dignity upheld, and their goals supported through sustainable practices and inclusive growth.

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## 6. Appendices

### Appendix 1: Relevant SDGs

- SDG 3: Good Health and Well-being - The project aims to improve menstrual health and hygiene in Sri Lanka, reducing health risks associated with poor menstrual management, and ensuring healthy lives and promoting well-being for all women and girls at all ages.
- SDG 5: Gender Equality - By addressing period poverty and providing access to safe and affordable menstrual products, the project contributes directly to achieving gender equality and empowering all women and girls.
- SDG 8: Decent Work and Economic Growth - The proposal outlines the creation of employment opportunities in the production facility for sanitary napkins, thus promoting sustained, inclusive economic growth, full and productive employment.
- SDG 10: Reduced Inequality - By making menstrual hygiene products accessible and affordable, especially to low-income and marginalized communities, the project works towards reducing inequalities within and among countries.
- SDG 12: Responsible Consumption and Production - The use of biodegradable materials and a sustainable business model reflects a commitment to sustainable consumption and production patterns.
- SDG 13: Climate Action - Implementing sustainable practices and reducing environmental impact aligns with taking urgent action to combat climate change and its impacts.

## Appendix 2: Roadmap

A multi-phase plan for the facility's setup will be implemented in order to combat period poverty, promote menstrual health, and advance gender equality. This project involves a comprehensive process that starts with careful planning and preparation, followed by the setup of the facility, production and quality control, marketing and distribution, and monitoring and evaluation.

Each phase will be carefully planned to align with the project vision and objectives, utilizing partnerships, engaging with community members, and complying with regulatory standards. It will also support decision-making, help to gather feedback and insights and assess progress.

- **Phase 1:** Planning and Preparation - to gauge the extent of period poverty and identify key partners, including government agencies, NGOs, community groups, and potential beneficiaries and also to understand existing needs, market dynamics, and potential challenges. This includes:
  - comprehensive needs assessment & survey
  - stakeholder mapping
  - Market research survey and feasibility studies—to evaluate the potential demand and feasibility of producing biodegradable sanitary napkins at specific locations, considering cost, supply chain logistics, demand, and regulatory requirements.
  - Partnership development – to identify suppliers of equipment/machinery and to establish collaborations with local organizations, academic institutions, and industry stakeholders. Government agencies will be engaged with to secure support and navigate regulatory processes effectively. Partnerships will also enhance the facility's capacity, resources, and compliance with regulations, contributing to its successful implementation.
- **Phase 2:** Design & Set-up
  - Facility Design and Infrastructure Development – involve renting or leasing a factory space and planning the layout of the production facility to optimize workflow efficiency, ensure proper equipment placement, and uphold safety standards.

- Equipment Procurement and Installation – sustainable and energy-efficient options would be prioritized and rigorous testing to ensure functionality and uphold stringent quality control measures.
- Raw Material Sourcing – suppliers committed to sustainable sourcing practices would be partnered with to ensure reliability and sustainability
- Supply Chain Management – a comprehensive supply chain management system will be developed to optimize inventory control, minimize waste, and reduce costs for efficient and sustainable production operations.
- **Phase 3: Production and Quality Assurance**
  - Staff Training and Capacity Building – to equip production personnel with the necessary skills and knowledge covering machine operation, quality control procedures, and health and safety protocols. Gender-responsive training will be included to promote gender equality and empower women in the workforce.
  - Quality testing – Testing biodegradable sanitary napkins for quality, absorbency, and biodegradability. Feedback from testing will inform adjustments and enhancements to ensure the products meet the standards.
  - Quality Assurance and Compliance measures - to uphold consistency and regulatory standards
  - Regular Audits and Inspections – to monitor product quality, safety, and environmental impact.
  - Mid-Implementation Surveys - to capture feedback from internal stakeholders (e.g. Employees/suppliers) and partners, facilitating adjustments and improvements as needed.
    - Employee Feedback Survey
    - Supplier Assessment Survey
- **Phase 4: Marketing and Distribution**
  - Brand Development and Marketing Strategy - to establish a strong brand identity and effectively communicate the benefits of biodegradable sanitary napkins. Community workshops, posters, and face-to-face marketing work best for educating rural consumers about the product and sustainable menstrual hygiene.

- Distribution Network Expansion - to broaden accessibility, particularly targeting underserved communities. Partner with local retailers, pharmacies, and organizations to distribute biodegradable sanitary pads to rural areas and marginalized populations and address gaps in access to menstrual hygiene products.
- Community Engagement and Education workshops – for building awareness and understanding of menstrual health and hygiene. Collaborate with local institutions, including schools, health centres, and community groups
- Post-implementation surveys – conducted after the facility is fully operational to evaluate outcomes, measure impacts, and assess stakeholder satisfaction. This includes:
  - Product Satisfaction Survey
  - Community Impact Assessment Survey
  - Environmental Impact Survey
- **Phase 5: Monitoring and Evaluation**
  - Implementing monitoring and evaluation frameworks – to monitoring project outcomes, including access to sanitary products, menstrual health awareness, and socio-economic impact. Gender-sensitive data to assess the project's varying impact on women, men, and marginalized groups.
  - Post-implementation surveys/feedback - from stakeholders, including employees, customers, and community members to identify areas for improvement and adaptation. Integrating this feedback into strategic decision-making processes will enhance the project's effectiveness and sustainability. Includes:
    - Product Satisfaction Survey
    - Community Impact Assessment Survey
    - Environmental Impact Survey
  - Exploration of opportunities – to scale the project to reach broader populations and geographic areas to ensure the project's viability and impact in the future.



## Appendix 3: Methodology

Establishing a sustainable, affordable, and biodegradable sanitary napkin production facility in rural Sri Lanka requires a detailed strategic approach. Our goal is to combat period poverty by creating awareness and eliminating myths surrounding menstruation with innovative production techniques. This will involve a comprehensive analysis of the raw materials available, leveraging community engagement to ensure cultural appropriateness and acceptability, and employing environmentally responsible methods to create products that are accessible to those in need. Steps from inception to implementation, including sourcing, manufacturing processes, quality control, distribution channels, and educational initiatives to promote menstrual hygiene will be looked at thoroughly. This facility is envisioned to serve as a hub for empowering local women through employment and education in addition to the production of biodegradable sanitary napkins; fostering a community-centred solution to a pressing social issue.

### **Stage 1: Feasibility Study**

A thorough feasibility study will need to be designed to assess the need for and viability of a low-cost sanitary napkin production facility. This initial stage will encompass a detailed analysis of demand, accessibility, distribution logistics, and the availability of raw materials within Sri Lanka. Finding a place where period poverty is common but yet easily accessible from the capital, Colombo, is essential to this assessment in order to enable regular monitoring and affordable transportation. Districts such as Gampaha, Kalutara, Galle, and Matara, which are within a 2-3 hour travel radius from Colombo, will be evaluated as potential locations (Jabbar & Senanayake, 2004). Additionally, the study will investigate production methodologies to ensure the cost of sanitary napkins remains below the prevailing market price of 18.75 LKR (USD 0.05) per pad. This includes exploring how to efficiently use biodegradable materials such as banana pseudo-stem while keeping the costs low.

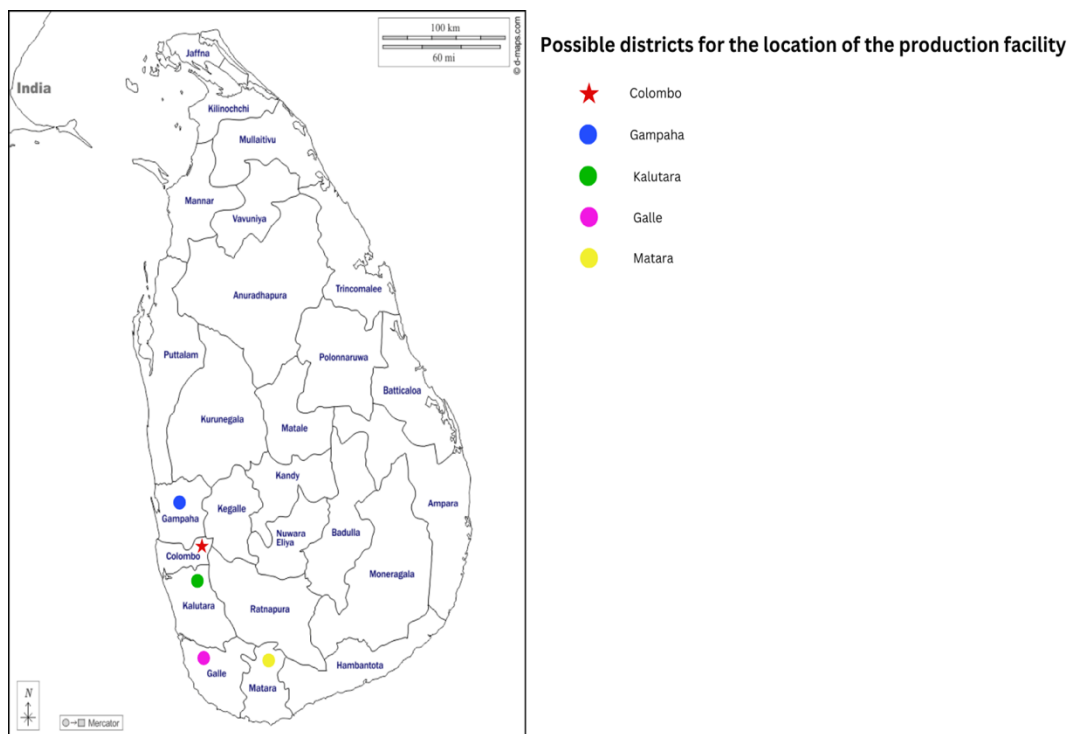


Figure 11: Map of Sri Lanka highlighting the districts of Colombo (Capital), Gampaha, Kalutara, Galle and Matara. (d-maps, n.d.)

## Stage 2: Product Development

The Product Development stage focuses on creating sanitary pads that not only fulfil rigorous quality criteria for absorbency, comfort, and durability but are also tailored to Sri Lankan women's specific anatomical and cultural needs. This involves developing pads with varying absorbency levels—light, medium, and heavy—to align with the menstrual flow observed in Sri Lankan and broader Asian demographics (Novak, 2023) (Apple Women's Health Study, 2023). Additionally, the size and shape of the pads must account for diversity among body types to prevent leakage, thus offering multiple sizes is important. In the humid tropical climate of Sri Lanka, it's imperative that the pads possess a reliable adhesive quality to prevent leaks, a consideration that may differ from models used in countries like Europe or the United States and may have commonality with pads from the African continent or India. Another important consideration is sustainability; in order to keep production costs low, eco-friendly procedures such as the usage of reusable or biodegradable packaging will be implemented. To combat the prevalent myths and misinformation about menstruation in Sri Lanka, educational elements such as myth-busting facts will be incorporated into the

packaging. Utilizing locally sourced materials will be a priority to keep costs down and support the local economy, with the additional strategy of collaborating with local engineering faculties to innovate low-cost raw material solutions, reducing the necessity and cost implications of importing materials.

### **Stage 3: setting up the Production Facility**

In Stage 3 of our initiative, we will establish the Production Facility, with the location chosen from one of the suitable districts identified in the feasibility study—Gampaha, Kalutara, Galle, or Matara. This facility will be fitted with all the necessary machinery, equipment, and specialized infrastructure required for the manufacturing of sanitary pads such as the sterile room, to ensure that the production environment meets the highest standards of hygiene. In order to guarantee manufacturing quality and efficiency, the production line layout will be designed during the setup phase, providing a strong base for the long-term manufacture of sanitary pads.

### **Stage 4: Business Model Development**

A Business Model will be developed to create a sustainable business strategy for producing and distributing the manufactured sanitary pads. This phase is critical since it will establish the pricing structures, guaranteeing that the pads are reasonably priced and provide value for money. The distribution network will be mapped out to reach even the most remote areas, guaranteeing that all menstruators in the locality, regardless of their location, have access. Marketing efforts will be culturally sensitive and informative, aimed at educating the population about menstrual health while also promoting the pads.

### **Stage 5: Employment**

The production facility will be staffed by at least eight dedicated individuals to ensure smooth operations. The team will consist of an operations manager, the required number of machine operators and packaging staff (at least three per each), and a security officer. In line with our commitment to social empowerment, hiring will prioritize women from the local area, especially those who are economically or socially disadvantaged, thereby providing much-needed employment opportunities to uplift the community. Moreover, we will institute an ongoing training program for all employees that will focus on skills development

essential for their roles and cover gender sensitization and empowerment, aligning with the mission to foster an inclusive and supportive workplace environment.

### **Stage 6: Awareness**

Awareness is essential to our project as we aim to improve understanding and break down taboos surrounding menstrual hygiene. Through a coordinated campaign to create and distribute awareness materials suited to the local context, we will actively promote the importance of using sanitary napkins. Community leaders, such as the local temple, will be engaged to leverage their influence and promote public discussion on menstrual health. Moreover, by partnering with educational institutions such as schools and universities, we can specifically raise awareness among young women, fostering a well-informed future generation that is both aware of and comfortable with menstrual hygiene management.

## Appendix 4: Detailed Swot Analysis

The project boasts several strengths:

- Commitment to environmental sustainability through the production of biodegradable sanitary napkins, addressing the increasing demand for eco-friendly products while mitigating environmental pollution and waste.
- establishing a production facility in Sri Lanka to enhance local production capacity, bolster the community economy, reduce dependency on imports, and generate employment opportunities.
- Community engagement that fosters social inclusion, builds trust among stakeholders, and ensures the project's relevance and long-term sustainability.
- Innovation and differentiation, particularly through offering low-cost biodegradable menstrual products, set it apart from competitors. This attracts consumers who are environmentally conscious or economically disadvantaged and bolsters market competitiveness while reducing environmental impact.
- Promote better menstrual hygiene practices, reducing the risk of reproductive tract infections and other health complications associated with poor menstrual hygiene management.
- Educational outreach programs on menstrual health and hygiene will empower individuals with knowledge and promote positive attitudes toward menstruation.

The project faces several weaknesses:

- Setting up a production facility requires substantial upfront investment in machinery, equipment, and infrastructure.
- Dependency on suppliers for raw materials and equipment poses risks, such as supply chain disruptions, quality control issues, and fluctuating market prices, which could affect project stability.
- Penetrating the market with biodegradable sanitary napkins may encounter resistance from consumers accustomed to conventional products, necessitating targeted marketing and education efforts to overcome scepticism.

- Navigating regulatory compliance, including obtaining permits and certifications, may result in administrative burdens and delays, potentially impacting project timelines and operations.

The project presents several opportunities:

- A growing demand for sustainable products is driven by increased awareness of environmental issues and sustainable living practices. This presents an opportunity to capture a growing market segment of eco-conscious consumers seeking alternatives to conventional menstrual hygiene products.
- Collaboration with government agencies, NGOs, and industry stakeholders can also expand access to resources, expertise, and networks, fostering synergistic partnerships and collective impact.
- Continuous innovation and diversification of product offerings, such as introducing menstrual hygiene kits or subscription services, can tap into evolving consumer preferences and market trends.
- Scaling operations and expanding distribution channels to reach further underserved regions and marginalized populations can unlock new market opportunities while enhancing social impact and inclusivity.

The project faces several threats:

- Competing against established brands and manufacturers in the menstrual hygiene market presents challenges in capturing market share and building brand recognition, as those who have used existing products might prefer to continue using them.
- Economic uncertainty, including factors such as economic downturns, natural disasters, or season changes, particularly for the agricultural community, may affect consumer purchasing power and the demand for products that may be perceived as non-essential by the households to which menstrual products belong.
- Deep-rooted cultural taboos and menstrual stigma may hinder the acceptance and adoption of sustainable menstrual hygiene products, requiring culturally sensitive marketing and education strategies.

## Appendix 5: Timeline

The timeline for establishing a low-cost, biodegradable, sustainable sanitary napkin production facility is designed to guide us from conception to execution. A thorough planning ensures that each step flows smoothly into the next and that unforeseen challenges are expected and dealt with. It is also important to know that any of the risks identified under section xxx can influence the timeline and thus, we should be prepared to mitigate them or adjust our target timeline accordingly.

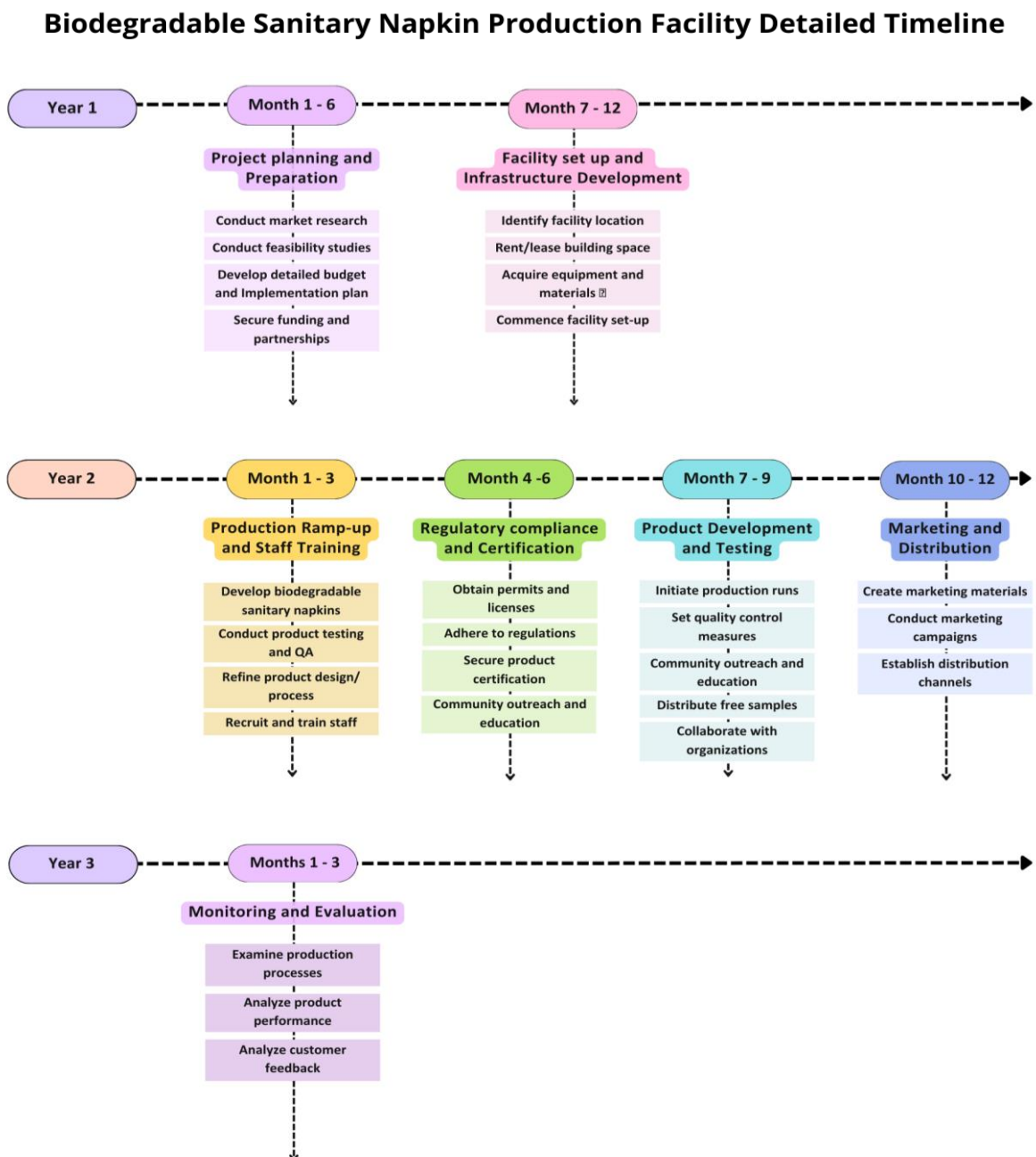


Figure 12: Project Timeline

## Appendix 6: Budget

BUDGET				
Description	Unit	No of Units	Cost per Unit \$	Total Cost \$
<b>Personnel (Salaries, , support personnel, trainer, consultants, etc.)</b>				
Supervisor (1)	salary per month	12	250	2.400
Machine Operator (3)	salary per month	12	200	7.200
UV sterilization & Packaging (3)	salary per month	12	200	7.200
<b>Sub-total</b>				<b>16.800</b>
<b>Operations</b>				
Transportation - staff and admin team	Per month	12	200	2.400
Rent	Per month	12	250	3.000
Administration	Per month	12	300	3.600
Raw materials (Quantities to be determined after further research) Banana pseudo-stem Distilled water Sodium Hydroxide	Environmentally friendly option at a minimum cost to be found			
Packaging materials (eco-friendly & biodegradable) LKR per pack; ~48,000 pads per month; 4 pads per pack; 12,000 packs	Environmentally friendly option at a minimum cost to be found			
<b>Sub-total</b>				<b>9.000</b>



<b>Machinery and Equipment (One-time costs)</b>				
Semi-automatic sanitary napkin manufacturing machine	Per item	1	12.000	12.000
UV sterilizer	Per item	1	2.000	2.000
Air conditioner (12,000 BTU):	Per item	1	2.500	2.500
sterile room	Per item	1	3.000	3.000
Single Phase Air Compressor 300L 4Hp	Per item	1	2.500	2.500
Other Costs	Per item	1	3.000	3.000
<b>Sub-total</b>				<b>25.000</b>
<b>Other costs</b>				
Marketing and Distribution - Development of marketing materials and branding		1	5.000	5.000
Research and Development - Gender-sensitive research to improve product design, enhance sustainability, and address specific needs of users.		1	3.000	3.000
Monitoring and Evaluation - Development of monitoring and evaluation frameworks including gender-sensitive data collection and analysis		1	3.000	3.000
Contingency Fund		1	5.000	5.000
<b>Sub total</b>				<b>16.000</b>
<b>One-time costs</b>				<b>25.000</b>
<b>Recurring yearly costs</b>				<b>41.800</b>
<b>Initial Capital Required</b>				<b>66.800</b>
<b>Awareness Campaign</b>				
Trainer cost	Per session	1	50	50
Transport	Per session	1	10	10
<b>Sub total</b>				<b>60</b>

Table 3: Detailed Budget

## Appendix 7: Risk Management Plan

A thorough risk management plan is necessary for the complex landscape of manufacturing to handle obstacles that may arise effectively. This involves methods to address supply chain disruptions, regulatory compliance, financial risk, equipment malfunctions, environmental hazards, social dynamics, human resource challenges, and medical emergencies. A solid risk management structure would ensure project flexibility and resilience.

<b>Risk Category</b>	<b>Description</b>	<b>Mitigation Strategies</b>
<b>Supply Chain Disruptions</b>	This is a serious risk to production continuity.	<ul style="list-style-type: none"> <li>- Have more than one supplier and source of raw materials</li> <li>- Maintain a buffer supply of raw material.</li> <li>- Establish alternative supply routes and logistics arrangements.</li> </ul>
<b>Regulatory Compliance</b>	Adherence to regulatory requirements to maintain operation legality.	<ul style="list-style-type: none"> <li>- Stay updated on laws, regulations, and industry standards.</li> <li>- Maintain open communication with regulatory authorities.</li> <li>- Ensure compliance through documentation and auditing.</li> </ul>
<b>Financial Stability</b>	budget overruns and cash flow issues is vital	<ul style="list-style-type: none"> <li>- Have a financial strategy and a reasonable budget.</li> <li>- Monitor cash flows and spending.</li> <li>- Look for additional funding options.</li> <li>- Maintain cash reserves for unexpected expenses.</li> </ul>
<b>Technical Failures</b>	Machinery may malfunction and production could be delayed impacting productivity.	<ul style="list-style-type: none"> <li>- have regular maintenance schedules for machinery.</li> <li>- Provide staff with training on fixing machine malfunctions.</li> <li>- create contingency plans in case of technical issues.</li> </ul>
<b>Environmental Hazards</b>	Heavy rain, floods, and fires can disrupt production.	<ul style="list-style-type: none"> <li>- Have an environmental impact assessment report.</li> <li>- Adhere to proper waste management protocols.</li> <li>- Prepare emergency response plans</li> <li>- Have fire extinguishers available</li> </ul>
<b>Social Dynamics</b>	Resistance from the community or cultural barriers can hinder project acceptance.	<ul style="list-style-type: none"> <li>- Promote open communication.</li> <li>- Engage with the local community and religious leaders.</li> <li>- Incorporate community feedback into planning and decision-making.</li> </ul>
<b>Human Resources</b>	staff turnover and skill shortages issues can occur.	<ul style="list-style-type: none"> <li>- Train employees on more than one task or rotate tasks.</li> <li>- conduct professional development training.</li> <li>- Foster a work environment where diversity and teamwork are valued</li> </ul>
<b>Health Emergencies</b>	Epidemics and other health emergencies can disrupt operations	<ul style="list-style-type: none"> <li>- Provide adequate sick leave days for employees</li> <li>- Provide additional menstrual leave of twelve days per calendar year</li> <li>- Ensure that employees adhere to public health guidelines.</li> </ul>

Table 4: Risk Management Pla

## Appendix 8: Log Frame

LOGFRAME				
	OBJECTIVES	INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
	<b>Impact: Eradicate period poverty in Sri Lanka</b>			
<b>Outcome 1</b>	Availability of affordable and sustainable menstrual pads in the market			
<b>Output 1.1</b>	Establishment of low-cost, sustainable pad manufacturing factory in Sri Lanka	Number of menstrual pads produced per month	Production records from the manufacturing facility	Availability of necessary raw materials for pad production
<b>Activities 1.1</b>	<p>Conduct market research to assess demand for affordable menstrual pads.</p> <p>Identify suitable location for the manufacturing facility considering factors such as accessibility, utilities availability, and cost-effectiveness.</p> <p>Acquire necessary permits and licenses for setting up the manufacturing facility.</p> <p>Procure machinery, equipment and raw materials for pad</p>			

	<p>production, focusing on low-cost and sustainable options.</p> <p>Develop partnerships with suppliers for raw materials, ensuring affordability and sustainability.</p> <p>Recruit and train staff for production, quality control, and maintenance.</p> <p>Set up waste management systems to handle any by-products or waste generated during manufacturing.</p>			
<b>Output 1.2</b>	Availability of the manufactured pads in local stores, supermarkets and pharmacies	Number of local stores, supermarkets, and pharmacies stocking the manufactured pads	Sales data from local stores, supermarkets, and pharmacies	<p>Adequate demand for affordable menstrual pads in the local market</p> <p>Cooperation from local retailers to stock the manufactured pads</p>
<b>Activities 1.2</b>	<p>Establish distribution channels with local stores, supermarkets, and pharmacies.</p> <p>Negotiate contracts and agreements with distributors and retailers to</p>			

	<p>stock the manufactured pads.</p> <p>Develop packaging and branding for the pads to attract consumers.</p> <p>Conduct marketing and promotional activities to raise awareness about the availability and affordability of the pads.</p> <p>Monitor inventory levels and ensure timely replenishment of stocks at retail outlets.</p> <p>Collect feedback from retailers and consumers to continuously improve the product and distribution process.</p>			
<b>Output 1.3</b>	Promotion of Menstrual health and hygiene to the local community	Number of community outreach programs conducted to promote menstrual health and hygiene	Attendance records, feedback forms, and surveys from community outreach programs	Willingness of the community to engage with and adopt menstrual health and hygiene practices
<b>Activities 1.3</b>	Organize educational workshops on menstrual health and hygiene in local community.			

	<p>Develop informational materials such as pamphlets, posters, and videos to disseminate key messages about menstrual health and hygiene.</p> <p>Train community health workers, teachers, and volunteers to serve as advocates and educators on menstrual health issues.</p> <p>Conduct outreach programs in schools, community centers, and women's groups to provide information and support on menstrual health and hygiene.</p> <p>Facilitate open discussions and forums where women and girls can share their experiences and ask questions about menstruation in a supportive environment.</p> <p>Monitor and evaluate the impact of the educational activities through surveys, interviews, and focus</p>			
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	<p>group discussions to measure changes in knowledge, attitudes, and practices related to menstrual health and hygiene.</p>			
<p><b>Other activities</b></p> <ol style="list-style-type: none"> <li>1. Secure funding: grants, loans, government funding and subsidies, Corporate and private donors</li> </ol>				
<p><b>Inputs</b></p> <ol style="list-style-type: none"> <li>1. Finance <ul style="list-style-type: none"> <li>• Initial capital</li> <li>• Operation expenses</li> </ul> </li> <li>2. Human resources</li> <li>3. Solar power system</li> <li>4. Raw materials</li> <li>5. Machinery</li> <li>6. Product leaflet</li> </ol>				