

Scoping Assessment of SMEs in the Uva and Central Provinces to identify the capacity and understanding of climate change and CDRFI.



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List of Abbreviations

CDRFI – Climate Change Disaster Risk Financing & Insurance

CC – Climate Change

F& B – Food and Beverage

SME – Small and Medium Scale Enterprise

Executive summary

The "Multi-Actor Partnership for Pro-Poor and Gender-Equitable Climate Risk Financing in the Context of the IGP's 2025 Vision" builds on the initial phase of the Insu Resilience Global Partnership's broader initiative. This study, conducted in the districts of Badulla, Matale, Monaragala, and Nuwara Eliya, aims to assess Small and Medium Enterprises (SMEs)' capacity and understanding of Climate Change Disaster Risk Financing Instruments (CDRFI), and to gauge their knowledge and willingness to adopt CDRFI solutions.

The study involved 132 randomly selected respondents from four districts where the Chrysalis business consortium is active. Data was collected through a mixed-method approach, utilizing both quantitative surveys and qualitative interviews. Each district's sample included a balanced gender representation of 17 females and 16 males. The sample reflected the demographic diversity of the districts, with respondents primarily aged 30-49, followed by those aged 50-64, and a smaller group of young entrepreneurs aged 18-29.

Financial Literacy and Insurance Engagement: The study revealed high financial literacy among SMEs, with 98% having bank accounts and 80% having secured bank loans. However, only 17% of SMEs have business insurance compared to 51% with life insurance. This low uptake of business insurance is attributed to a general distrust in insurance products, highlighting a need for more reliable and transparent CDRFI solutions.

Asset Ownership and Gender Representation: A significant portion of SMEs (37%) own five types of critical assets (land, building, vehicle, machinery, and tools), while 31% own four types. Notably, only 11% owns 2 or less asset types. The male female ratio in owning assets does not significantly differ in the group which own all 5 types of assets but is adversely favouring the females in the categories of owning 4 types of assets and owning two or lesser assets. 70% of SMEs employ a workforce where over 50% are women. This imbalance in asset ownership and high employment rate of women in SMEs underscores the heightened vulnerability of women to climate-related impacts. Women's employment and household well-being could be disproportionately affected by climate-related disruptions, emphasizing the need for gender-sensitive CDRFI strategies.

Economic vs. Climate Change Concerns: Current economic issues, including financial instability, rising input costs, high energy prices, and limited market access, are more pressing for SMEs than direct climate change impacts. While 77% of SMEs reported minimal direct climate-related disruptions over the past five years, they still face significant indirect impacts such as supply chain disruptions and logistical challenges exacerbated by climate events like heavy rains.

CDRFI Adoption Barriers: The low engagement with business insurance highlights a broader issue of trust in CDRFI products. SMEs show a preference for savings and liquid assets as primary risk management strategies, reflecting a reluctance to invest in insurance due to perceived unreliability.

Recommendations

1. **Develop Trustworthy CDRFI Products:** To enhance uptake, CDRFI tools should be designed with clear terms and conditions, communicated in straightforward language, and tailored to specific business needs. Building trust is crucial.
2. **Training and Capacity Building:** Implement training programs that focus on assessing climate risks and selecting appropriate CDRFI tools. These programs should be tailored to the time constraints and specific needs of SME owners.
3. **Diverse Financial Tools:**
Loan Schemes: Create varied loan options to support adaptation during adverse conditions. Include dedicated schemes for women and youth entrepreneurs based on business plans rather than collateral.

Working Capital Financing: Offer short-term financing solutions to help SMEs manage inventory, hire additional staff, and maintain operations during extreme weather events.

Background

As a middle-income country, Sri Lanka's Small and Medium Scale Enterprises (SMEs) sector plays a crucial role in the livelihoods of its population, particularly in rural areas where SMEs are often the backbone of economic activity. The Small and Medium Enterprise (SME) sector is famed as an extremely important strategic sector for promoting economic growth and social development in both developed and developing economies (Asian SME Summit, 2009). Similar to many of the developing countries in the area, the SME sector of Sri Lanka also plays a significant role in the economy in terms of contributing to export earnings, GDP, mobilizing domestic savings, reducing unemployment, alleviating poverty, and distributing income (Vijayakumar, 2013). For instance, the SME sector in the country accounts for more than 75% of the total number of enterprises, contributes to 52% of Gross Domestic Production, and provides more than 45% of employment opportunities (Chen & Mitra, 2022).

SMEs don't have a universal definition and they are defined differently depend on countries and regions using various parameters such as the number of employees, amount of capital employed, and the amount of turnover or nature of business (Jayasekara & Thilakarathna, 2013). The World Bank (2017) defines SMEs and large-scale enterprises based on the number of employees in terms of 5–19, 20–99, and more than 100 as small, medium, and large, respectively. In the Sri Lankan context, based on the number of employees, 51-200 are considered as medium, 11-50 are considered as small and less than 10 are considered micro enterprises (Ministry of Industry and Commerce, 2015)

SMEs are vital employment generation, and economic growth. However, they are highly vulnerable to the adverse effects of climate change, which include increased temperatures, erratic rainfall patterns, prolonged droughts, and rising sea levels.

The agricultural sector in Sri Lanka is already facing challenges such as soil degradation, water scarcity, and pest outbreaks, which are exacerbated by climate variability. For SMEs dependent on agriculture, these climate-induced disruptions affect not only crop yields but also the entire supply chain, from production to market access. For instance, these impacts disrupt businesses in multiple ways, affecting raw material supply, input quality, transportation, electricity, water availability, and logistics, and causing damage to buildings and machinery. As a result, many enterprises experience reduced productivity, increased costs, and heightened risks, threatening their long-term sustainability.

The slow onset impacts are the migration of labour, increase in production costs and overall economic downturn. According to a 2016 World Bank study, Sri Lanka's housing, roads, and relief sectors alone experience a combined annual expected loss from disasters of \$0.38 billion. Therefore, it is crucial to develop a range of diverse and flexible financial instruments to address these issues. Extensive research and analysis are necessary to create effective financial tools that support SMEs in mitigating, avoiding, reducing and adapting to risks, and compensating for the adverse effects they face. Following are examples of national strategies and assessments that emphasize the need for developing diverse tools for CDRFI and effective instruments to support SMEs:

Sustainable Insurance Facility:

“Sri Lanka aims to cultivate its domestic insurance sector, in cooperation with international partners, to ultimately ensure complete (90-100%) financial protection coverage of key supply chains and industries.”

Climate Prosperity Plan Sri Lanka – CVF V20:

“To integrate MSME insurance as a core offering via Sri Lanka private sector banks and wholesale buyer/seller associations during digitization of 600 branches of the national bank, in order to extend financial protection to key small-scale actors of local industries. The project is set over the timeframe 2023-2028 with an investment level of \$7 million US over the period.”

The Enabling Environment for Disaster Risk Financing in SRI LANKA Country Diagnostics Assessment – ADB:

“Instruments are ideally applied using a risk layering approach, breaking disaster risk down according to the frequency of occurrence of different types of hazard events of varying severity and associated levels of loss and designing bundles of instruments targeting differentiated layers of risk (ADB 2014)”.

As the severity and unpredictability of weather conditions increase, it is crucial to understand how various disasters (both sudden and slow onset) affect SMEs. Detailed analysis of regional requirements and differences is required to successfully implement national initiatives on CDRFI approaches and tools.

Under this context this assessment study report is developed as a part of the project "Multi-Actor Partnership for Pro-Poor and Gender-Equitable Climate Risk Financing in the Context of the IGP's 2025 Vision", builds upon the groundwork laid during Phase 01 of the broader initiative multi-actor partnerships on climate and disaster risk finance and insurance in the context of the Insu Resilience Global Partnership. The project also aligns with international initiatives such as the Global Climate Risk Shield, addressing the escalating need for financial protection against climate risks. Through a BMZ-funded project (2019-2022), Project is internationally implemented by CARE Germany, in Sri Lanka the project is implemented by Chrysalis and other partners.

Objective

This initiative involves evaluating SMEs' understanding of Climate and Disaster Risk Financing and Insurance (CDRFI) within the business consortium across the districts of *Matale*, *Nuwara Eliya*, *Badulla*, and *Monaragala*.

The study emphasizes gender-based financing needs for climate-related disaster recovery in the SME sector, as nearly half of the consortium's members in each district are women-owned businesses.

The following objectives were to be achieved from the assessment study.

1. Assessing SMEs' Awareness and Capacity: Evaluating the current level of awareness and capacity of SMEs and sector-related stakeholders to assess and manage climate-related risks in their businesses.
2. Identifying the Needs, Barriers for and Gender-sensitivities in CDRFI Adoption: Understanding the specific needs and attributes of CDRFI products for SMEs, while identifying challenges and barriers to their adoption including factors related to age, education, and gender.
3. Providing Actionable Recommendations: to create awareness on and build capacity in CDRFI adoption within the overall SME sector while addressing the unique needs and challenges faced by women-owned SMEs

Methodology

This study was conducted using a mixed-methods research design combining quantitative and qualitative interviews/focus groups. The study targeted members of the SME consortium in the four districts; *Badulla*, *Matale*, *Nuwara Eliya*, and *Monaragala*, where Chrysalis is implementing the project to build multi-actor partnerships and explore the feasibility of piloting CDRFI with stakeholder support.

These SMEs, having been engaged with Chrysalis programs for over five years, were considered well-suited for participation in this complex initiative. Study will focus on gathering both quantitative and qualitative data to comprehensively assess how climate change affects SMEs and their readiness to adopt Climate and Disaster Risk Financing and Insurance (CDRFI) solutions.

The consortium consists of 200 SMEs across the four districts, and to achieve a 95% confidence interval, a random sample of 132 SMEs was selected, with 33 from each district. For balanced gender representation (Figure 0), the sample was divided into 17 females and 16 males in all districts, except for Nuwara Eliya, where the distribution was adjusted to 18 males and 15 females due to fewer women in the consortium.

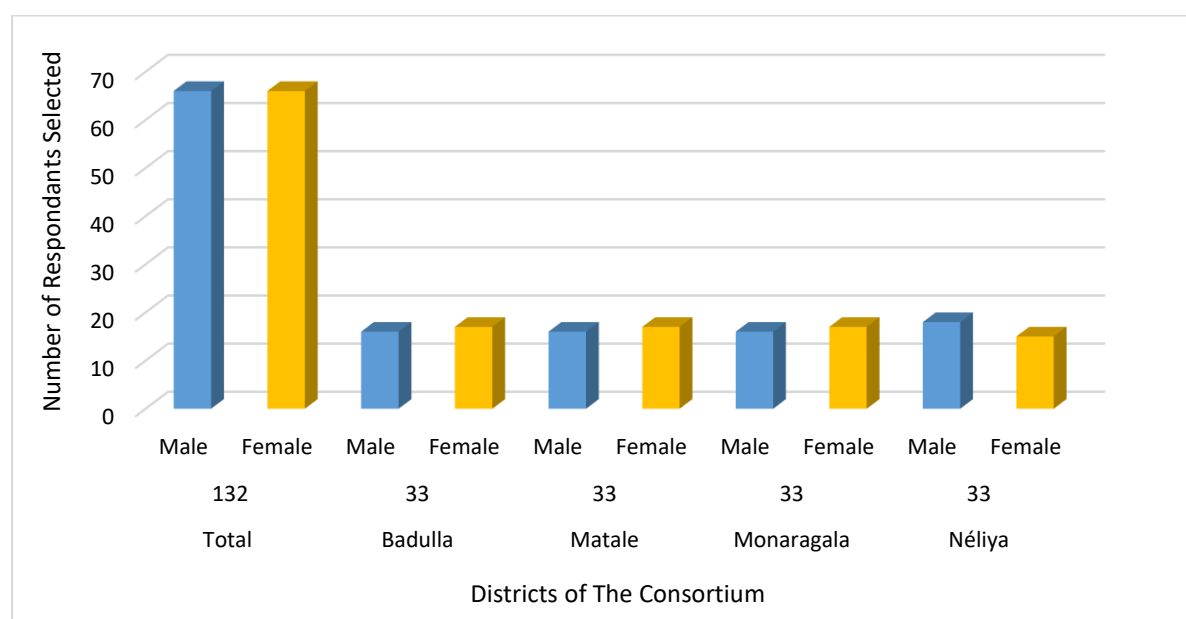


Figure 0: Gender Distribution Across consortium in the Proposed Sample

Primary data were collected through individual interviews utilizing a questionnaire developed by Chrysalis. The questionnaire was developed through the insights gathered during the first phase of the multi-actor partnership for the CDRFI project and consisted of a mix of open-ended questions and closed "select the answer" type questions (see Annex 1). This initial phase provided crucial data that shaped the questions to align with the study's objectives. The draft questionnaire was then reviewed and discussed with the survey team to ensure clarity, relevance, and comprehensiveness. Feedback from team members, familiar with the study's goals and context, was incorporated to make necessary adjustments.

Before finalizing the questionnaire, a modified draft was tested in the field (Image 01). This testing involved conducting interviews with a small group of respondents to understand how long it took to complete the questionnaire and to assess the nature and quality of the responses. This phase helped identify any issues with question clarity or respondent interpretation and allowed for adjustments to improve the questionnaire. Based on the feedback from the field testing, final revisions were made to the questionnaire to enhance its effectiveness. The finalized version was then used for the main data collection effort.

However, based on the field-testing adjustments were made to certain parts of the questionnaire to limit the response time as well as to avoid difficulties faced by interviewees in responding due to their lack of understanding on specific details of insurance related products. The revised questionnaire enabled the interview to be conducted within 45 minutes.



Image 1: Field Testing of the Questionnaire



Image 2: Enumerator Training.

An enumerator training (Image 02) was conducted to ensure the preparedness of enumerators to conduct interviews while safeguarding the rights of the interviewees. The interviews were conducted either by visiting the SME location or by inviting the interviewees to come to a common location depending on the availability of the respective individuals.

To ensure the accurate recording of the respondent's comments, in addition to the field notes taken by the enumerator, the interviews were voice recorded with the consent of the respondent. These recordings were utilized when completing the data sheets.

The questionnaire was organized into 12 sections to ensure comprehensive data collection while maintaining a smooth interview flow. Enumerators had the flexibility to adapt the interview structure based on the respondent and the situation.

During the scheduling of interviews, it was found that some SMEs had ceased operations or that the owners had left the country. In these instances, a new respondent was selected by continuing with the systematic sampling method of choosing every second person from the list.

Interviews were conducted between 25th April to 25th June 2024, out of the planned 132 interviews, 130 were completed. The remaining 2 interviews could not be conducted within the given timeframe due to the unavailability of the respondents.

Limitations of the study

- Response Bias: The reliance on self-reported data through surveys and interviews introduces the potential for response bias. SMEs might have underreported or overreported their experiences and perceptions of climate risks and CDRFI products due to social desirability or a lack of self-awareness. This bias could affect the accuracy of the reported levels of understanding and engagement with climate risk financing.
- Limited Scope of Insurance Data: The study found a low engagement with business insurance (17%), which may not fully represent the complexities of SME insurance practices. The data may not account for variations in insurance coverage types, the reasons behind low uptake, or the specific terms of existing insurance policies. This limitation may affect the

comprehensiveness of the insights regarding SMEs' trust and satisfaction with insurance products.

- Gender Disparities in Asset Ownership : While the study highlights the significant role of women in the SME workforce, the analysis of asset ownership did not deeply explore how gender impacts asset accumulation and management. The relatively small proportion of SMEs with fewer assets (11%) and the balanced gender distribution within this group might not fully capture the broader gender disparities in SMEs sector in asset ownership and its implications for climate risk resilience.
- Although diverse industries were represented in the sample the majority of the sample was 66% was represented by 2 industries (apparel and food & beverage) this may have an overall biasness in the analysis of the responses towards those two sectors.
- Survey and Interview Limitations : The qualitative data, while valuable, is subjective and may be influenced by the interviewer's biases or the respondents' willingness to share sensitive information. The survey design also limits the depth of understanding of complex issues related to climate risk and financing.

Findings of the Study

Demographic & Business-related information

Table-1 compares Sex, Age, ethnicity, religion and educational composition in the sample across four districts: Nuwara Eliya, Badulla, Matale, and Monaragala. Female and males are equally represented among the respondents, with Nuwara Eliya and Matale exhibiting the highest proportion of males and females in the total population respectively (13.8%). The age distribution indicates that individuals aged 30-49 constitute the majority (63.1%) across all districts, particularly in Badulla (75.0%) and Monaragala (65.6%).

The Sinhala ethnic group is predominant in all districts, with the highest concentration in Monaragala (100%) and Matale (87.88%). Minority ethnic groups, including Sinhala Tamil and Indian Tamil, are exclusively represented in Nuwara Eliya and Badulla, with no presence in Matale or Monaragala. The Moor population is small, appearing primarily in Matale (12.12%) and marginally in Badulla (3.13%). Religiously, Buddhism dominates across all districts, especially in Monaragala (100%) and Matale (87.88%). Hinduism has significant representation in Nuwara Eliya (33.33%) and Badulla (15.63%), while Islam is represented in Matale (12.12%) and Badulla (3.13%). Catholicism has minimal representation, limited to Badulla (3.13%). Other ethnicities and religions are absent in the sample.

Educational attainment is characterized by a significant proportion of individuals (50.8% of the total sample) [Figure 1] with Advanced Level (AL) qualifications, most notably in Nuwara Eliya district (36.4%) and Badulla district (71.9%). Other education levels, such as Ordinary Level (O/L) and National Vocational Qualification (NVQ), show varying but relatively lower distributions, while the representation of diploma and graduate holders remains minimal across all districts. The level of education is closely related to effectively running a business, particularly in managing finances and legal matters. This is supported by the fact that 96.2% of the SME owners have education beyond Ordinary Level (O/L).

Table 1: Distribution of gender, age, and education level across four districts of the business consortium.

Districts	Nuwara Eliya		Badulla		Matale		Monaragala	
Criteria	Over all repre senta	District -wise represe	Overall represe ntation (%)	District -wise represe	Overall represe ntation (%)	District -wise represe	Overall represe ntation (%)	District -wise represe

		tion (%)	ntation (%)		ntation (%)		ntation (%)		ntation (%)
Gender distribution	Male	13.8	54.5	13.1	53.1	11.5	45.5	11.5	46.9
	Female	11.5	45.5	11.5	46.9	13.8	54.5	13.1	53.1
Age distribution	18-29	2.3	9.1	1.5	6.3	0.8	3.0	1.5	6.3
	30-49	14.6	57.6	18.5	75.0	13.1	54.5	16.2	63.6
	50-64	7.7	30.3	4.6	18.8	10.0	39.4	6.9	27.3
	> 65	0.8	3.0	0.0	0.0	0.8	3.0	0.8	2.8
Ethnicity	Sinhala	16.9	66.7	19.2	78.1	21.5	87.9	25.4	100.0
	ST	4.6	18.2	2.3	9.4	0.0	0.0	0.0	0.0
	IT	3.8	15.2	2.3	9.4	0.0	0.0	0.0	0.0
	Moor	0.0	0.0	0.8	3.1	3.1	12.1	0.0	0.0
	Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Religion	Buddhist	16.9	66.7	19.6	78.1	21.5	87.5	25.4	100.0
	Catholic	0.0	0.0	0.8	3.1	0.0	0.0	0.0	0.0
	Islam	0.0	0.0	0.8	3.1	3.1	12.5	0.0	0.0
	Hindu	8.5	33.3	3.8	15.6	0.0	0.0	0.0	0.0
Education level	Grade 1-5	0.0	0.0	0.0	0.0	1.5	6.3	0.0	0.0
	Grade 6--10	1.5	6.1	0.0	0.0	0.0	0.0	0.8	3.1
	(O/L)	10.8	42.4	3.1	12.5	6.2	25.0	6.2	24.1
	(AL)	9.2	36.4	17.7	71.9	10.8	43.8	13.1	51.5
	Diploma	3.0	12.1	1.5	6.3	4.6	18.8	3.1	12.1
	Graduate	0.8	3.3	1.5	6.3	1.5	6.2	1.5	6.1
	(NVQ)	0.0	0.0	0.8	3.1	0.0	0.0	0.8	3.0

*ST- Sri Lankan Tamil, IT- Indian Tamil, NVQ- National Vocational Qualification, O/L - Ordinary Level, A/L- Advanced Level.

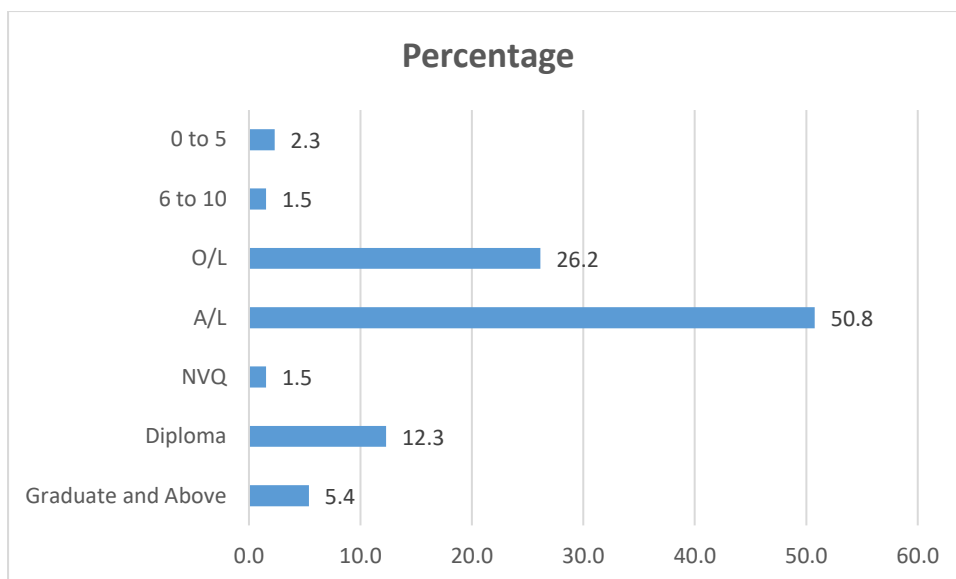


Figure 1: Cumulative Educational level of the SME's in the business consortium

Further, all five individuals (3.8%) with education below the Ordinary Level (O/L) were male points to a potential gender disparity in educational access or achievement. This raises important considerations regarding socio-economic, cultural, or systemic factors that may contribute to this trend, such as differing societal expectations for male and female education, economic challenges faced by male students, or conversely difficulties faced by female entrepreneurs with a lower formal education in sustaining a business.

Financial literacy status of the SME's in the business consortium

Financial literacy of SMEs across four districts was determined through analysing bank account ownership, usage of different banks, loan status, and insurance coverage of the respondents. Bank account ownership is high across all districts (98.5%), with a minimal number (2) without accounts. The most utilized banks include Bank of Ceylon (BoC) [35%] and People's Bank [17%], with BoC having the highest representation in Monaragala (47%) and Nuwara Eliya (36%) [Figure 2]. Loan uptake is high and consistent, with 81.5% having taken loans from banks and over 20% of SMEs in each district except Monaragala (17.69%). Loan completion rates are higher in Monaragala (13.08%), while life insurance ownership is most prevalent in Monaragala (15.38%). Business insurance uptake is low across all districts, with the highest in Badulla (6.15%). Financial engagement appears to be substantial, with a considerable proportion of individuals participating in loans and insurance across all regions; however, business insurance is comparatively underutilized.

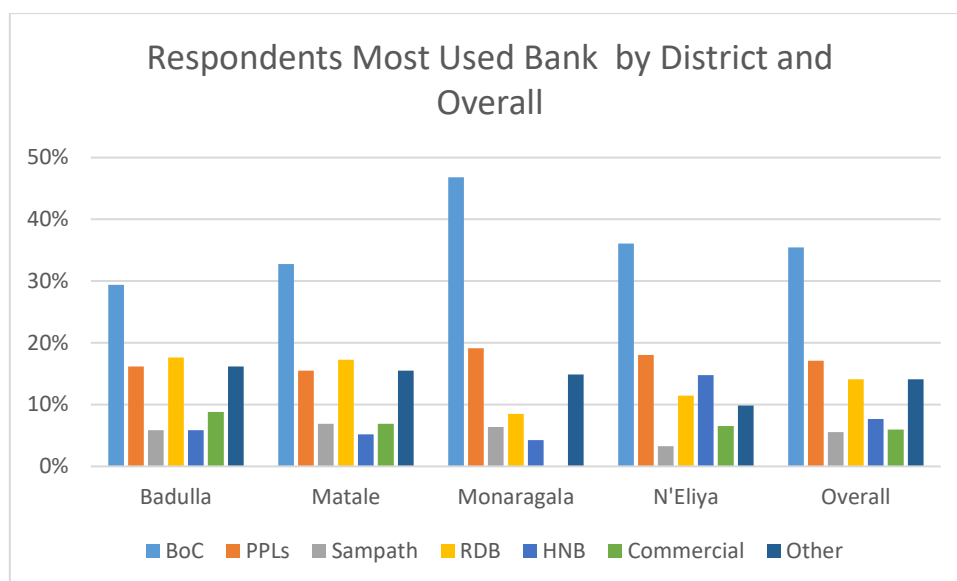


Figure 2: Respondent's Most Used Banks by District & Overall

Figure - 3 illustrates the connectivity of SMEs to other organizations and networks. This was evaluated by inquiring whether they are members of any other societies or networks (Other than the consortium) either individually or as SMEs. The results indicate that 65% of SMEs are engaged with external networks. 53 SMEs are members of District of higher-level networks. This high level of engagement reflects the active participation of most SMEs in broader business or professional communities, offering access to valuable resources, support, and potential collaboration opportunities.

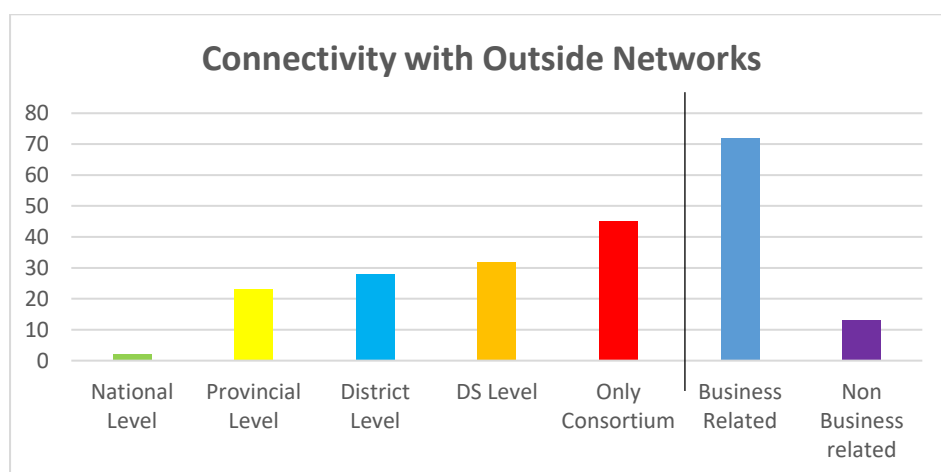


Figure 3: Networking status of the Respondents of the business consortium.

Business Details of the SME's

The sectors in which SMEs operated exhibited considerable diversity across Apparel, Organic and Agricultural Products, Fast Food Production, Flowers and Horticulture, Medicinal and Herbal Plant Production, Tourism, and Industrial Material Production, emerging as central components of the business consortium (Figure 4).

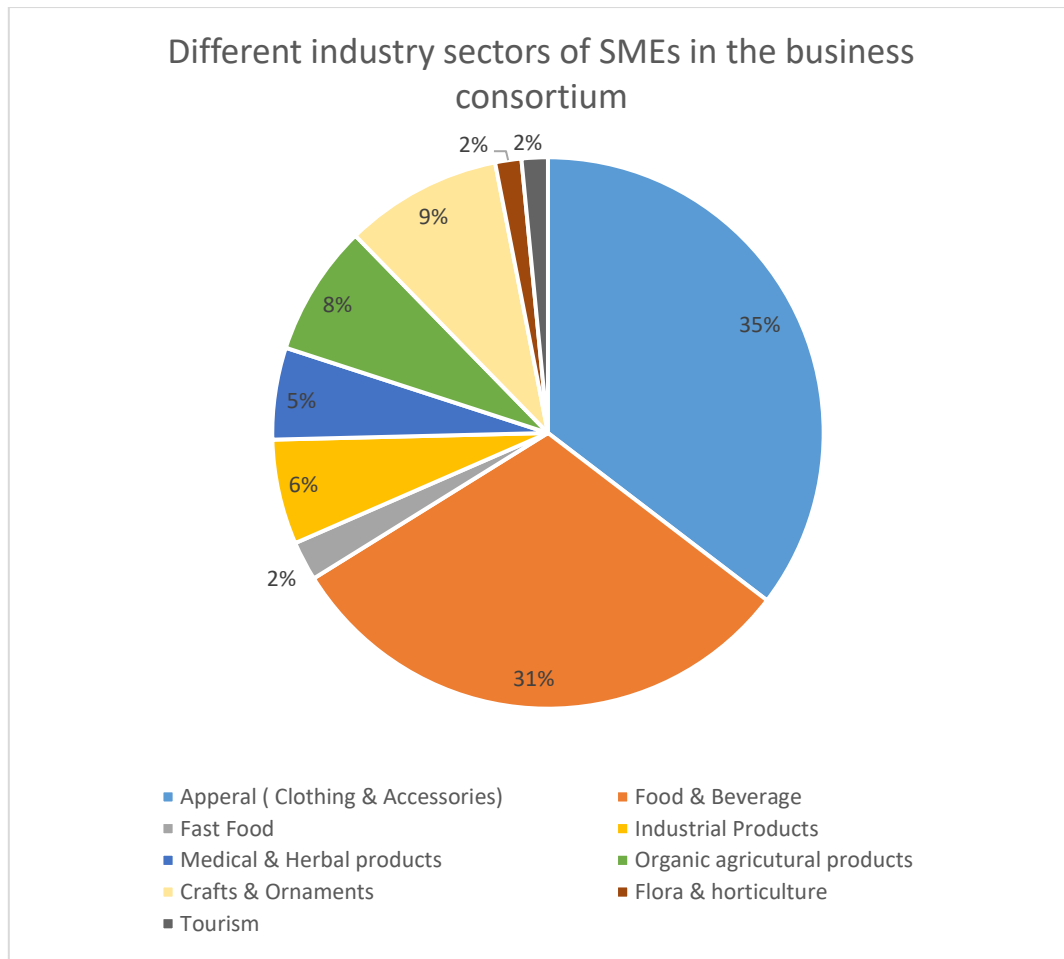


Figure 4: Different industry sectors of SMEs in the business consortium

The Apparel (Clothing & Accessories) sector is the most prominent across all districts, accounting for 35% of the total contributions(Figure 4), with Nuwara Eliya having the largest share at 12.0% and Monaragala the smallest at 5.6%. Both Badulla and Matale contribute equally to the apparel sector at 8.7% each (Figure 5). Similarly, the Food and Beverages sector plays a substantial role, comprising 31% of the total, with Nuwara Eliya prominent at 10.6%, followed by similar contributions from Badulla (6.9%), Matale (6.9%), and Monaragala (6.4%). Crafts and Ornaments are particularly prominent in Monaragala (4.6%) and Matale (3.8%), while it plays a smaller role in Nuwara Eliya and Badulla (0.8% each).

Organic and Agricultural Products have the highest contribution in Nuwara Eliya (3.1%) and progressively smaller contributions in the other districts, with the lowest in Matale (0.8%). Fast Food Production shows uniform contributions across Badulla, Matale, and Monaragala (0.8%) but is absent in Nuwara Eliya. Flowers and Horticulture Products contribute 0.8% in Badulla and Matale but have no impact in Nuwara Eliya or Monaragala.

Medicinal and Herbal Plant Production is most prominent in Badulla (2.3%), with smaller contributions in Matale and Monaragala (0.8% and 1.5%, respectively), and absent in Nuwara Eliya. Tourism is a minor contributor, with 0.8% in Badulla and Monaragala and no contribution in Nuwara Eliya and Matale. Industrial Material Production shows some contribution in Badulla (2.3%) and Monaragala (2.3%) but has minimal presence in Matale (0.8%) and none in Nuwara Eliya.

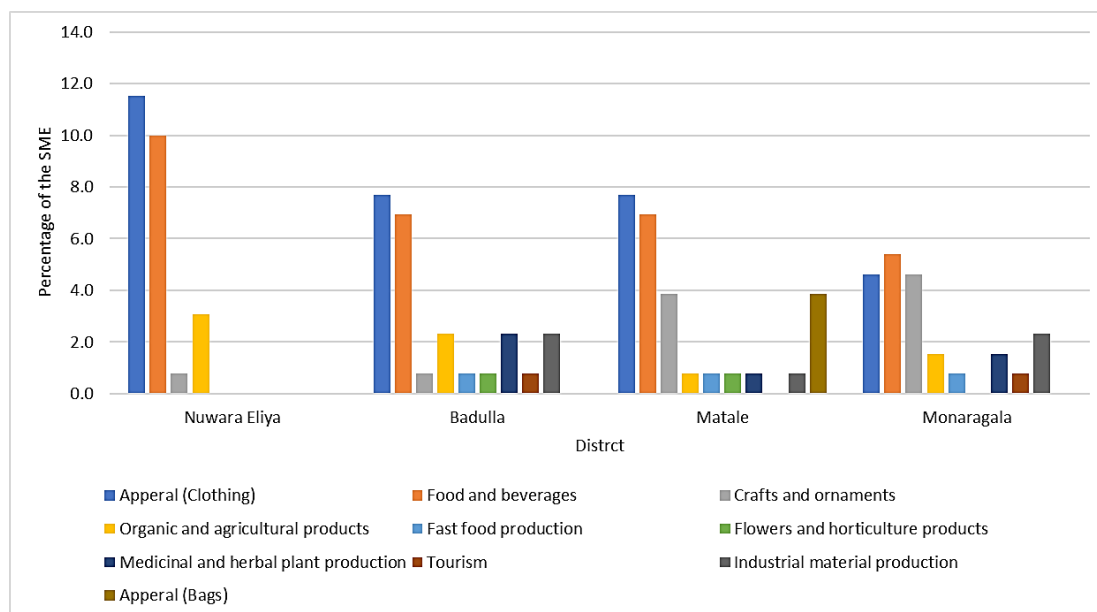


Figure 5 : District-wise distribution of different sectors of SMEs

All respondents contribute to the value chain at various stages and extents. The data indicates that all respondents are engaged in multiple stages of the value chain, with varying levels of contribution. Each respondent's involvement spans different stages, reflecting a range of contributions in terms of both scope and intensity. This diversity in engagement highlights the multifaceted nature of value chain participation across the studied entities.

Primary Producers contribute most significantly in Nuwara Eliya (10.8%), followed by smaller contributions in Badulla (4.6%), Monaragala (3.8%), and Matale (2.3%). Raw Material Suppliers have their largest share in Monaragala (6.2%), while the other districts show similar levels of contribution, ranging from 3.1% to 3.8%. Industrial Processing plays a significant role in Matale (13.1%) and Nuwara Eliya (10.0%), with smaller contributions from Badulla (7.7%) and Monaragala (6.2%) [Figure 6].

Packaging shows the highest contribution in Matale (18.5%) and Badulla/Nuwara Eliya (15.4% each), with Monaragala contributing slightly less (11.5%). Collectors are most active in Monaragala (10.0%), followed by Nuwara Eliya (8.5%), while Badulla and Matale have lower contributions at 5.4% and 4.6%, respectively. Retailers contribute most significantly to Nuwara Eliya (25.4%), while Badulla (9.2%), Matale (6.9%), and Monaragala (6.2%) have lower involvement. Wholesalers dominate in Matale (23.1%) and Badulla (19.2%), with Nuwara Eliya (17.7%) and Monaragala (15.4%) showing a slightly lower but still considerable contribution.

Overall, Nuwara Eliya has a strong presence in Retail (25.4%) and Primary Production (10.8%), while Matale leads in Industrial Processing (13.1%), Packaging (18.5%), and Whole selling (23.1%) [Figure 8]. Monaragala and Badulla show more balanced contributions across various roles, with Wholesaling and Packaging playing a prominent role in both districts.

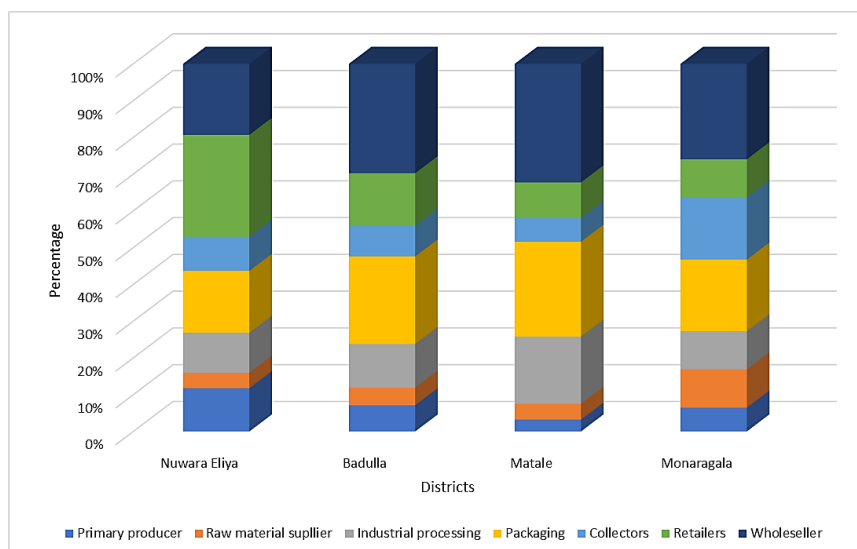


Figure 6: Distribution of the contribution of the respondents to the value chain

When considering the ownership of the SME and contribution to the value, males owned SMEs are predominantly represented in roles such as Primary Producers (11.54% vs. 6.92% for female owned), Raw Material Suppliers (11.54% vs. 5.38%), and Packaging (33.85% vs. 29.23%) [Figure 9]. Males owned entities also slightly outnumber female owned in Industrial Processing (19.23% vs. 18.46%) and Collectors (14.62% vs. 12.31%). Conversely, Retailers have a higher proportion of female respondents (20%) compared to males (12.31%). Wholesalers show nearly equal contributions from both, with males at 39.23% and females at 38.46%.

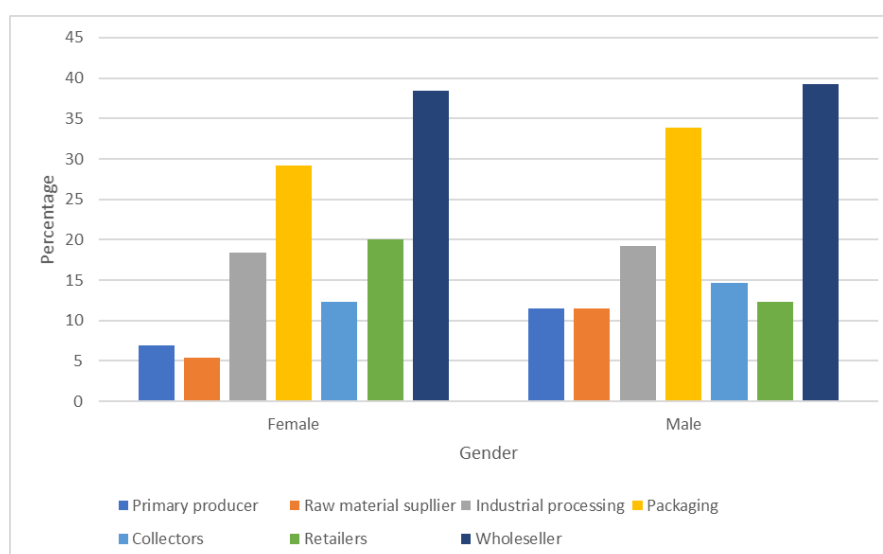


Figure7: Contribution to the value chain by the type of ownership of SME

When looking at the age profile of these SMEs (illustrated in Figure 8), it's evident that the majority of businesses have been established for a considerable amount of time. Specifically:

- No businesses were in operation for 0-3 years.
- Nine businesses have been operating for 3-5 years.
- Fifty-eight businesses have been running for 5-10 years.
- The largest group, 63 businesses, have been active for more than 10 years.

This distribution suggests that a significant number of SMEs have a long history and established presence in their respective sectors, which can imply stability and experience within the industry.

The annual income of the SMEs ranged from 0.6 to 50 million LKR, reflecting a wide diversity within the sample. This variation indicates that the SMEs span a broad spectrum of financial scales and business sizes.

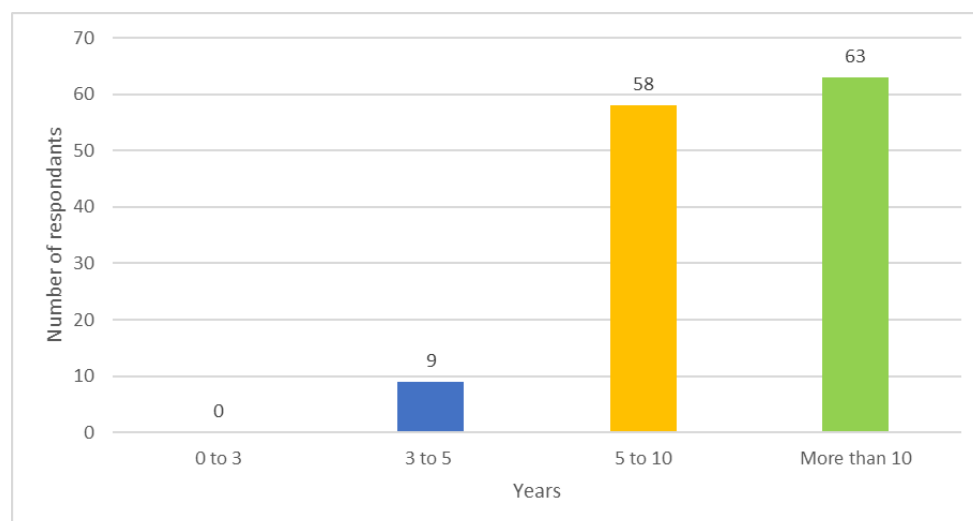


Figure 8: Age Profile of SMEs

The sample selection was done in a manner to ensure that it will represent 50% of “women owned” SMEs. This approach reflects a commitment to understanding the specific dynamics and challenges faced by women entrepreneurs.

The data further reveals that:

- 70% of the SMEs had a workforce in which over 50% were women. This indicates a strong female presence in the workforce, suggesting that these businesses not only are led by women but also employ a significant number of women in various roles.
- 81 SMEs (62%) identified as “women led.” This means that in majority of the SMEs women play a critical role in decision making, underscoring their leadership and entrepreneurial contributions.

These findings highlight the crucial role women play in the SME sector, which is a vital part of the national economy. The significant female representation in both ownership and employment emphasizes the impact of SMEs in advancing gender equality and empowering women. This underscores the need to support and strengthen women-led businesses, as they contribute significantly to economic growth and development. Despite the low ownership of SME by women (25%) in Sri Lanka (*we-fi.org*), The women representation is very strong in leadership level as well as employment rates in the SME’s in the business consortium in the 4 districts, the women owners has directly attributed this to the focused financial support and training they have gained through Chrysalis supported programs during the past 4 years.

“I started the business because after having my children I couldn’t go for work, I was working out of the province at the time, this business has helped me to stay with my children, earn an income as well as provide some employment to near buy women” - Women entrepreneur.

The data shows that fewer than 50% of SMEs have complied with formal regulatory processes, with only 63 SMEs registered for statutory payments and 58 for income tax payments. Reasons given for non-registration included:

- **Employees' Reluctance:** Many SMEs face difficulties in getting employees to agree to contribute to statutory payments or tax registrations. This reluctance may stem from various factors, including lack of understanding or financial concerns among employees.
- **Irregular Work Patterns:** The nature of work in many SMEs can be inconsistent or seasonal, which complicates regular contributions to statutory payments and tax compliance. Irregular employment patterns make it difficult to maintain consistent records and comply with regulatory requirements.
- **Complex Registration Processes:** The procedures for registering for statutory payments and income tax can be perceived as cumbersome and bureaucratic. This complexity can deter SMEs from completing the registration process, especially if they lack the resources or expertise to navigate it.
- **Insufficient Financial Resources:** Many SMEs operate on tight budgets and may struggle to allocate funds for statutory payments or to meet tax obligations. Limited financial resources can make it challenging for SMEs to meet these regulatory requirements.

These factors collectively contributed to the lower rates of registration among SMEs, indicating a need for support and simplified processes to encourage greater compliance.

Another area look into was usage of utilities. Majority of the SMEs were using centralised utilities (National grid, central water supply). Specifically:

- **Electricity:** 98.4% SMEs used electricity directly for their business operations, with monthly electricity bills ranging from LKR 2,000 to LKR 400,000.
- **Water:** 15.3% SMEs sourced their water from private wells, while those using centralized water supply had water bills ranging from LKR 300 to LKR 90,000.
- **Heating:** SMEs requiring heating utilized LPG or firewood.
- **Renewable Energy:** 8.4% SMEs had installed solar panels as a source of renewable energy.

Above mentioned usage patterns illustrate the varying levels of dependency on both centralized and alternative utilities among surveyed SMEs.

A key factor in evaluating SMEs' resilience to climate risks and their ability to recover from disasters is their asset ownership (Figure 9). The assessment focused on five types of assets: land, buildings, machinery, vehicles, and tools. The findings were as follows:

- 36.9% SMEs (48) owned all five types of assets, (with 25 of these being women-owned).
- 30.8% SMEs (40) owned four types of assets, (with 17 being women-owned) .
- 10.8% SMEs (14) reported owning only two or fewer types of assets, (with 9 being women owned).

Although the comparison between men and women owned SMEs is similar in owning 5 types of assets. The ratio is not favouring women owned SMEs in terms of owning assets in the 4 assets category and two or lesser assets category. This is an important factor to be considered when evaluating the vulnerability of women owned SMEs to climate change related impacts.

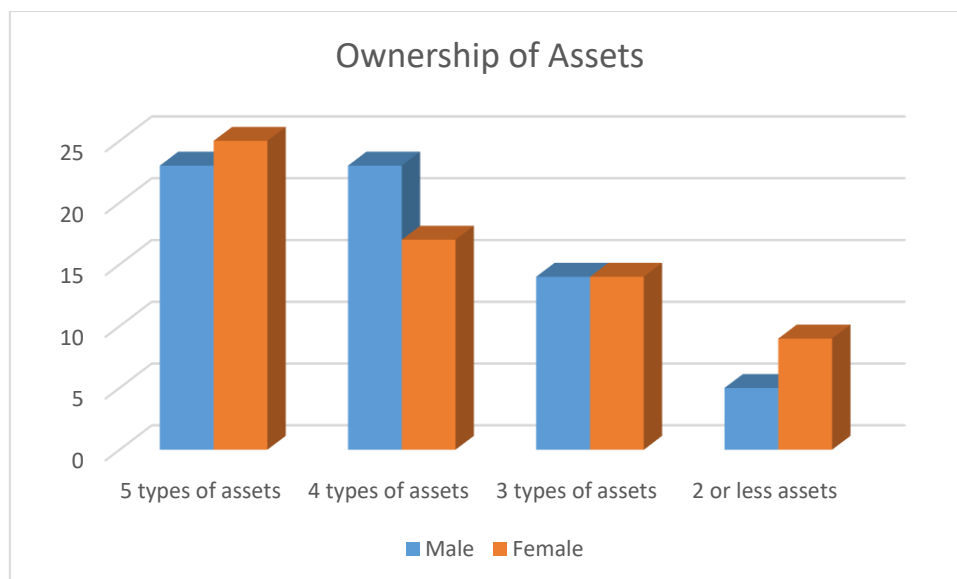


Figure 9: CC Knowledge & CC Impact

quantitative analysis of individuals' self-reported understanding of climate change, highlighting variations in perceived knowledge across a population. The highest concentration of respondents, approximately 40%, categorized their understanding of climate change as "Moderate." [Figure 10]. This suggests that a significant portion of the population has a basic but not comprehensive grasp of the topic. It reflects a moderate level of awareness but may imply a gap in deeper scientific comprehension or engagement with more complex aspects of climate science.

Thirty percent (30%) of respondents reported having a "Good" understanding (Figure 10). These individuals likely possess a stronger familiarity with climate change concepts, causes, and impacts, perhaps with some ability to discuss relevant scientific principles or policy debates.

Around 10% of the population described their understanding as "Poor." This indicates that a notable portion of individuals feel unconfident in their knowledge, potentially lacking basic awareness of climate science or related global and local implications. This knowledge gap could limit their ability to engage in meaningful discourse or make informed decisions related to climate change.

Less than 5% of respondents fell into either extreme category, with some claiming "Very poor" understanding and others asserting "Excellent" understanding. The low percentage of respondents in these groups suggests that few people feel entirely uninformed or highly knowledgeable. Those in the "Excellent" category may be individuals with specialized knowledge, while the "Very poor" category reflects those with minimal or no exposure to climate information.

From a scientific communication perspective, these findings suggest that while there is a general awareness of climate change, further efforts are needed to bridge the gap between moderate understanding and in-depth knowledge.

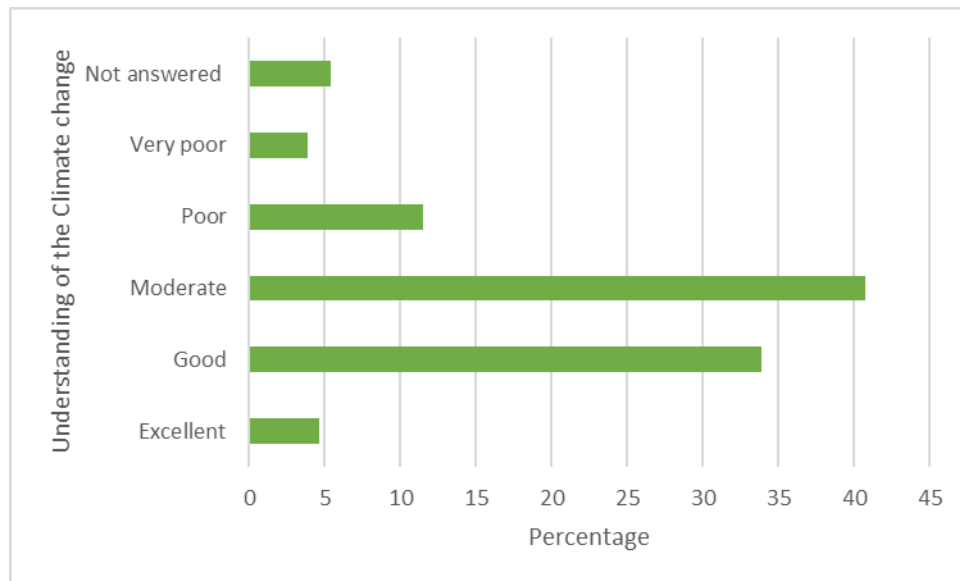


Figure 10: Distribution of respondent's awareness on climate change

The majority of respondents across all districts experience climate change either from time to time or moderately frequently, with very few experiencing it often or very often. A small percentage in each district has not experienced climate change. In Nuwara Eliya, the majority of respondents have experienced climate change from time to time (10%), while a lesser proportion have experienced it moderately frequently (6.92%) [Figure 11].

In Badulla, a higher percentage of respondents report experiencing climate change from time to time (14.62%). A smaller percentage report moderately frequent experiences (5.38%). In Monaragala, respondents report the highest level of moderately frequent experiences (11.54%) and time to time experiences (10%). In Matale, most respondents also experience climate change from time to time (10.77%), followed by moderately frequent experiences (7.69%).

Across all districts, the most common experience of climate change is reported as occurring time to time. This is especially pronounced in Badulla (14.62%), followed by Matale (10.77%), Nuwara Eliya (10%), and Monaragala (10%). This indicates that intermittent climate events are the most frequently experienced across regions. The second most common experience across districts is climate change being reported as moderately frequent. Monaragala has the highest percentage of respondents in this category (11.54%), followed by Matale (7.69%), Nuwara Eliya (6.92%), and Badulla (5.38%). This trend suggests that regular but not constant climate-related events are noticeable across regions.

The district patterns follow a similar shape with little differences, Nuwara Eliya curve is flatter than other districts indicating varying experiences from respondent's. The responses from male and female owners differ slightly where female owners have indicated experiencing a higher number of extreme weather conditions (7 female Vs 4 male)[Figure 12]. The difference is coming mainly from Nuwara Eliya district where 4 Women owned SMEs indicating they have often faced extreme weather conditions. This points to an important factor to consider where Nuwara Eliya has lesser number of women owned SMEs, whether there is a relationship between the weather conditions experienced deterring women owners in continuing their businesses.

Overall, the results revealed that most respondents experience climate change intermittently, with only a small percentage experiencing it frequently or very often, indicating a moderate but widespread perception of climate-related events across the four districts. However, the trend lines predict a decrease in time-to-time occurrences and an increase in moderately frequent occurrences, indicating the potential for more frequent climate change-related experiences in the future.

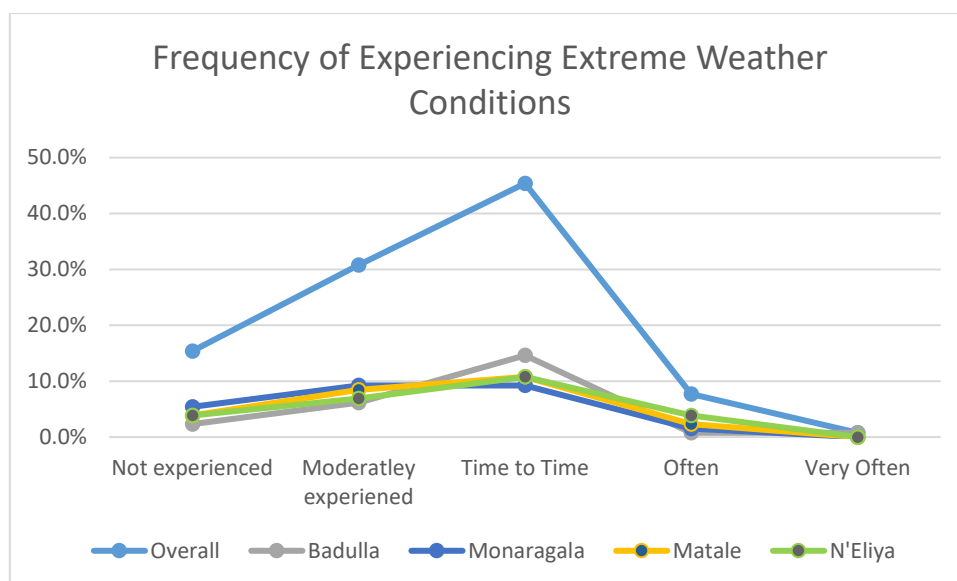


Figure 11: Frequency of experiencing extreme weather Conditions in 04 Districts

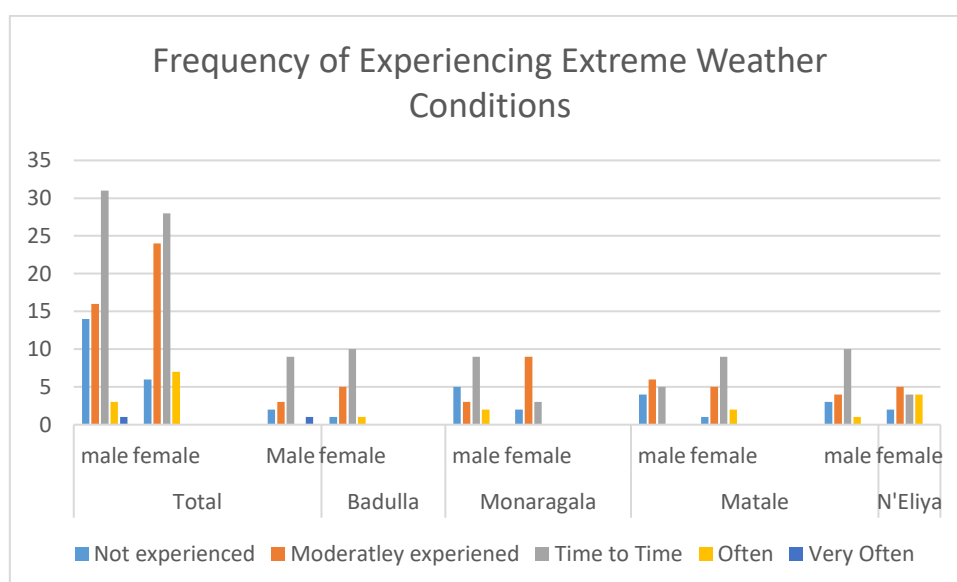


Figure12: Frequency of experiencing extreme weather Conditions (Sex Segregated Data)

CC impact and issues created in the business process.

The impacts are categorized into Production-related issues, Input/raw material availability issues, Infrastructure damages, Product quality-related issues, Sales-related issues, and those who are not affected. Results show that production and product quality are the most commonly impacted areas, with raw material availability, infrastructure, and sales being lesser but still significant areas affected due to incidents related to climate change.

Production-related issues account for the highest impact, affecting 30.77% of respondents (Figure 13). This suggests that climate change has a significant effect on agricultural or industrial productivity. As climate change intensifies, production disruptions could increase, further affecting agricultural and industrial outputs.

Product quality-related issues follow, with 23.08% of respondents experiencing declines in the quality of their products due to climate-related factors as environmental stressors such as temperature shifts,

erratic weather patterns, and resource scarcity can degrade the quality of products over time (Figure 13).

Commonly found production process and product quality related issues in various industries are:

Agricultural production

- i. Kithul trees experience poor growth during heavy rains, leading to a decline in treacle production, and flowers are damaged during droughts, making harvesting difficult in both heavy rain and drought conditions.
- ii. Milk production decreases due to rain, and there are challenges in storing food items during this period.
- iii. Dry periods lead to loss of humidity, affecting flowering, while during rainy periods, there is difficulty in sourcing materials like sawdust and rice bran.
- iv. Bacteria growth increases in heat, raising costs for air conditioning and misting systems in horticulture and mushroom industries.

Other industries

- v. Painting becomes impossible during the rain, and wood develops fungus due to moisture.
- vi. Heat causes a reduction in farmers' income, which in turn affects bakery income.
- vii. Fabric damage occurs due to floods, and landslides cause work stoppages, decreased income, halted sales, and problems with employee attendance in Apparel industry.
- viii. Challenging working conditions, production halts are necessary due to extreme heat.
- ix. Employee attendance is impacted by rain, making it difficult for workers to come to work.

Common factors

- x. Fungus attacks are common across multiple products and materials, especially during rainy periods, affecting, bamboo, and packaging, and leading to food rotting and quality reduction.
- xi. Quality issues due to climate factors include reduced quality of “kithul” products during heat, cracking of cement products due to heat, and milk toffee spoiling quickly in heavy rain.

Input/raw material availability issues (16.92%) are expected to rise as climate change increasingly disrupts supply chains. Infrastructure damages are reported by 9.23% of respondents, reflecting the physical impacts of climate change on facilities, roads, or utilities essential for operations. This frequency can be further increased due to more severe climate events like floods, storms, and heat waves, which may cause more widespread damage to essential infrastructure.

Common input/ raw material availability-related issues are,

- i. High raw material prices and harvesting challenges for yam during rain.
- ii. Difficulty sourcing raw materials due to heavy rain.
- iii. Challenges in employee attendance due to rain.
- iv. Power supply interruptions caused by heavy wind.
- v. Lack of firewood and product spoilage due to rain.

Sales-related issues (6.15%), though currently the least affected, might experience moderate growth as supply chain disruptions, changes in consumer behaviour, and market volatility induced by climate change led to further complications in sales processes.

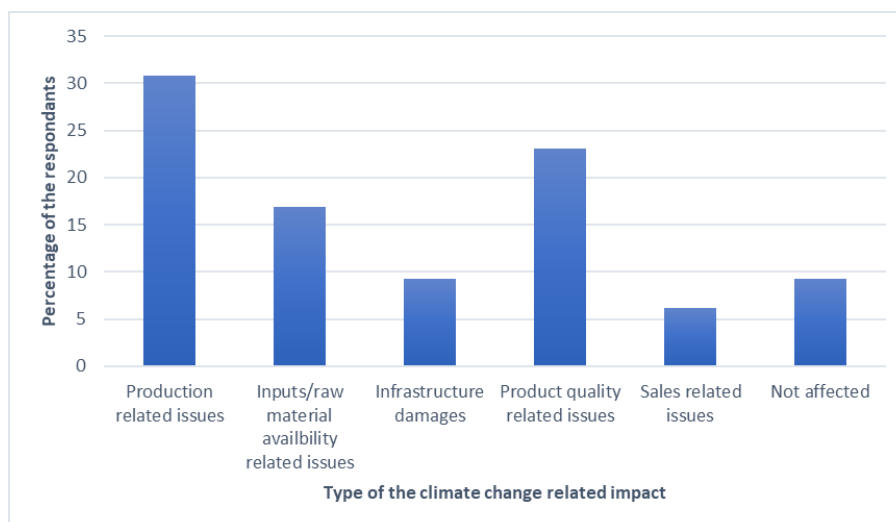


Figure 13: Different aspects of climate change-related impacts in SMEs

Climate Change Training and Sources of Information.

Very few individuals had attended workshops on climate change-related topics, with only 28 participants across the four districts having such experience (Figure 14).

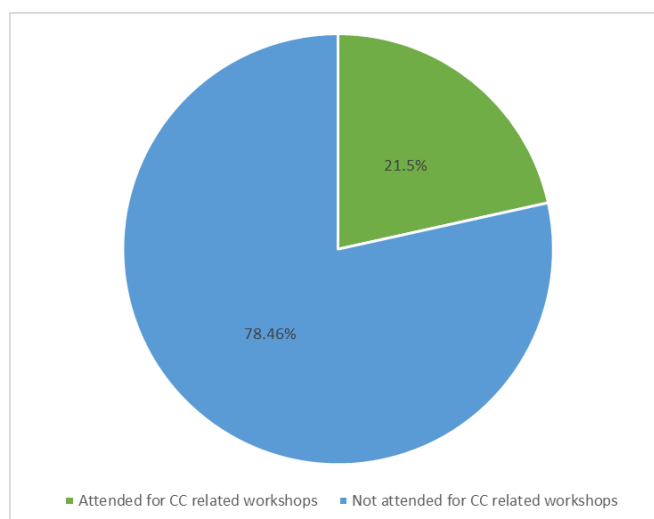


Figure 14: Participation for CC related workshops by the respondents.

SMEs primarily use the following sources to gather information about climate change:

- Mass Media: A significant majority of SMEs (70.8%) rely on mass media, such as television, radio, and newspapers, to find information about climate change (Figure 16). This suggests that traditional media channels play a crucial role in disseminating climate-related information to businesses.
- Social media: Social media platforms are also a key source of information, with 57.7% of SMEs turning to these platforms for updates and insights on climate change (Figure 15).

Social media's interactive nature allows for real-time updates and engagement with a broader range of sources and opinions.

- Government: A smaller number of SMEs (10%) rely on government sources for climate change information (Figure 15). This indicates that while government channels are a recognized source, they are less utilized compared to mass and social media.

Overall, the reliance on mass media and social media suggests that SMEs are more inclined to access information through widely accessible and immediate channels. The lower engagement with government sources might highlight a need for increased outreach and communication from governmental bodies to ensure that SMEs are well-informed about climate change and related policies.

Regarding green initiatives, most SMEs did not have specific programs or actions dedicated to environmental sustainability. However, a few SMEs focused on green concepts such as natural or organic products and substitutes for plastic. Other actions included responsibly managing waste, using solar energy, and engaging in reforestation activities.

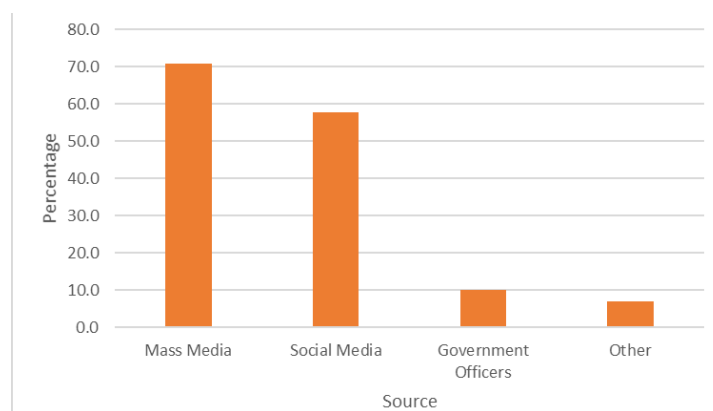


Figure 15: Sources of Information to find about CC

Perceived Risks to the Businesses

Results highlights the prominence of several risk factors, such as "Heavy Rain," "Economic Issues," "Drought," and other business-related or financial risks. The most frequently cited risk is "Heavy Rain," with nearly 40% of respondents recognizing it as a significant risk (Figure 16). This likely reflects concerns related to extreme weather events and their potential impact on sectors such as agriculture, infrastructure, and business continuity. In climate-related risk assessments, heavy rainfall can lead to flooding, damage to crops, and supply chain disruptions, all of which can have widespread economic consequences.

Economic Issues" rank as the second-highest risk, with around 35% of respondents citing this category (Figure16). This emphasizes the importance of macroeconomic factors such as inflation, currency volatility, and trade imbalances that can directly or indirectly affect businesses and other operations. It highlights the interconnectedness of climate impacts and economic stability, particularly in sectors like manufacturing, trade, and agriculture

Twenty-five percent (25%) of the respondents identified "Drought" as a significant risk (Figure16). Droughts can have far-reaching consequences, especially in regions dependent on agriculture and water resources. It can lead to decreased agricultural yields, water shortages, and even socioeconomic instability in affected areas.

Approximately 20% of respondents listed risks "Directly related to business operation" as a concern. This category likely includes operational challenges such as supply chain disruptions, workforce instability, regulatory compliance, or physical damage to facilities. These risks highlight the importance of resilience planning within business operations to mitigate unforeseen impacts caused by climate or market variability.

Financial risks were reported by around 10% of respondents. Financial risks could involve credit risks, liquidity constraints, insurance costs, and investment losses. These may be secondary impacts of the other risks, such as those stemming from climate events, economic downturns, or droughts. Businesses exposed to high financial risk may struggle to maintain solvency or attract investments under volatile conditions.

This distribution of perceived risks indicates that volatile weather such as heavy rain and drought, along with broader economic instability, are the most pressing concerns for the respondents. These results underscore the interconnected nature of climate, environmental, and economic systems. Businesses and policymakers may need to prioritize adaptive strategies that address both climate-related risks (e.g., heavy rain, and drought) and the economic uncertainties that exacerbate these challenges.

Economic risks and financial stability also feature prominently, indicating that macroeconomic trends and financial mechanisms will play a critical role in how businesses and communities navigate these challenges. Enhanced forecasting, risk modelling, and contingency planning are essential for businesses to ensure long-term resilience.

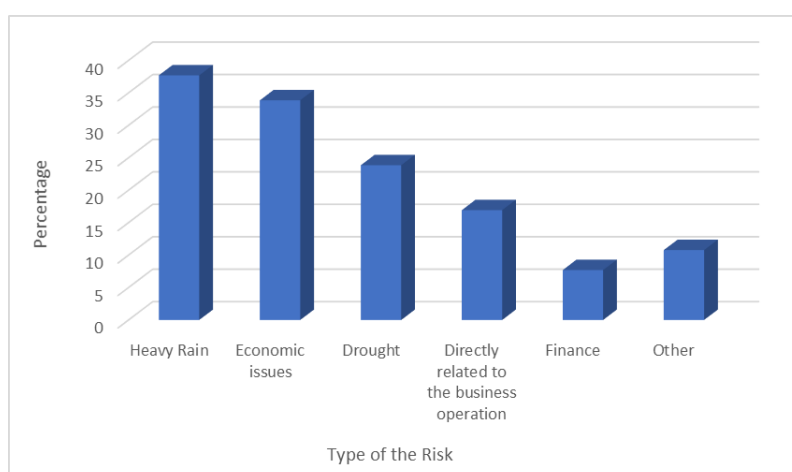


Figure 16: Diverse typed of the risks perceived by the SMEs.

The below district-wise data (Table 2) helps to contextualize these findings and understand the regional variations in disaster impact.

Matale	Monaragala	Nuwara Eliya	Badulla
2024 Prolonged Heat	2024 heavy rain	2023- Heavy Rain and Wind	2023, Heavy rain and lightning
2023 Heavy rain	2023 Heavy Rain	2023 Heavy Rain, Land Slide	2022,23,24 - Long dry spell

2023 Wind- 3, 4 times per year	2023, Drought period	2022 Flooding and landslide	2022 - Flood
2023 Landslide in December, 5-6days,	2022 Heavy Wind	2021 - Landslide	2020 - heavy wind
2022 Heavy rain from October till April	2020 heavy rain	2018 - landslide	2019 - heavy rain , food damaged
2014/2018 Strong winds, net house damaged	2020 Covid		2015-18 , The exact year cannot remember dry spell
2018, long dry spell, one month, water supply was difficult	2020-21 drought - affected crops		
2013, Drought, 2 months, 2012, Floods, 1 week,			

Table 2: prominent risks faced by the respondents across the Districts.

When considering the number of incidents that SMEs faced for the climate change related incidents, highest percentage of respondents (~37%) reported experiencing only one incident, indicating that single incidents are the most common experience within the surveyed population (Figure17). Around 10% of respondents reported encountering two incidents, suggesting a sharp decline from those experiencing just one. A smaller percentage of respondents (~7%) reported three incidents, further emphasizing the decreasing trend as the number of incidents increases. Very few respondents indicated experiencing four or five incidents, both representing less than 5% of the sample.

The data reveals that while a considerable portion of respondents (around 35%) reported no incidents, the majority experienced at least one incident, with a significant number encountering multiple incidents (Figure17). The decrease in percentage as the number of incidents increases (from one to five) indicates that recurring incidents are less common, but not negligible.

“These days the weather pattern has changed we cannot predict when it will rain and when it will not, we have to adjust ourselves to this and do the business, it becomes very difficult for people to come to work during heavy rain period ” - woman apparel industry owner.

Regarding frequency, the majority of respondents (35%) experience incidents rarely, with another significant group (30%) experiencing them occasionally (Figure18). Only a small proportion of respondents face frequent or very frequent incidents, suggesting that while incidents occur, they are not pervasive for most.

The most frequent response (~35%) indicates that incidents occur rarely, implying that although incidents happen, they are not highly recurrent for most respondents (Figure18). About 30% of respondent’s experience incidents occasionally, which suggests moderate recurrence for a significant portion of the population. Approximately 20% of respondents reported experiencing incidents frequently, indicating that a smaller group encounters them regularly. Very few respondents (about 5%) experience incidents with high regularity, reflecting that incidents happen at a higher rate for a small portion of the population.

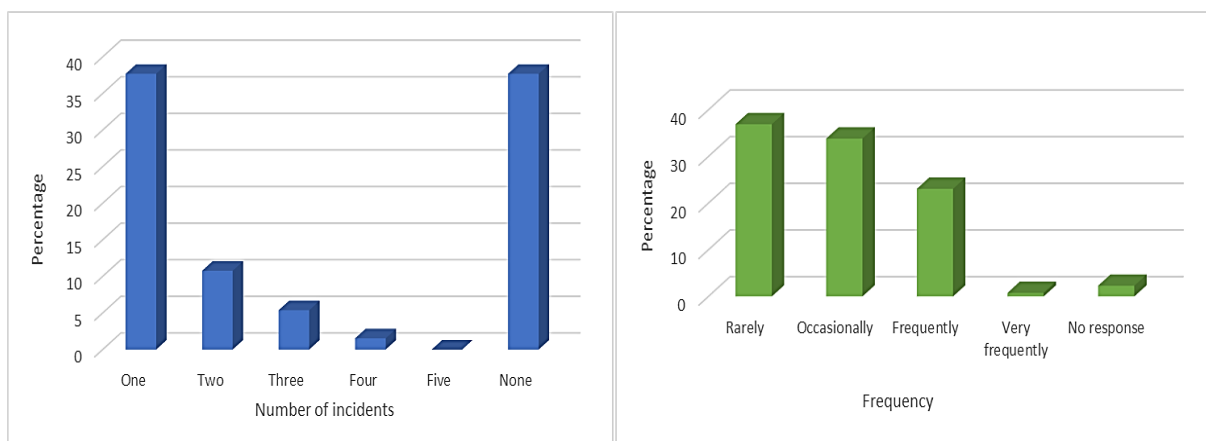


Figure 17: Number of incidents due to climate change and the frequency of occurring

Risk Management Strategies

The survey on risk management among SMEs reveals (Figure 18) their approaches to handling damage and assessing the effectiveness of their strategies:

- **Liquidating/Pawning Assets:** A significant number of SMEs (35%) rely on liquidating or pawning their assets (Figure 19). This approach involves selling or using assets as collateral to quickly generate funds for recovery. While this method provides immediate cash flow, it can deplete valuable resources and may not be sustainable long-term. The assets that were used by SMEs for liquidating/ pawning were mainly – Gold, Lands and Vehicles, This was the most commonly used risk financing method across all 4 districts.
- **Savings:** 33% SMEs responded by saying that they use their own savings (Figure 18). Tapping into personal savings is another common strategy. Utilizing savings is a direct method of funding recovery but depends on the SME's prior accumulation of financial reserves.
- **Loans:** A substantial number of SMEs (30%) use formal loans from banks or financial institutions (Figure 18). Loans can offer structured repayment terms and potentially larger sums of money, but they also involve interest costs and the obligation of repayment, which can strain financial resources.
- **Informal Financing :** The informal financing methods were the least preferred (14%) and was mainly obtaining money for higher rates, borrowing from a relative/ friend and ” Seettu” (a traditional group collection method). This can be flexible but may lack formal structure and regulation.
- **Insurance** -Only 17% SMEs use insurance as a risk management tool. Insurance can provide a safety net for specific types of risks, such as property damage or business interruption, but uptake is relatively low among the surveyed SMEs. This might indicate barriers to accessing or understanding insurance products, or a lack of awareness about their benefits.

Overall, the data illustrates that while various strategies are employed, asset liquidation and personal savings are more prevalent compared to insurance. This suggests that SMEs might face challenges in

“I recommend everyone to invest in Gold or small land plots when you have excess income , when you are in trouble you can convert it to cash, there is no point in going for insurance schemes they don't keep their promises”- Women entrepreneur in Herbal medicine industry.

accessing or affording formal risk management tools, or they might not fully appreciate the benefits of insurance.

Data shows that N'Éliya showed a low figure on savings compared to other districts, while SMEs in both N'Éliya and Badulla showed a high number of using loans as a recovery strategy. Badulla also had a higher number mentioning insurance as a risk management strategy.

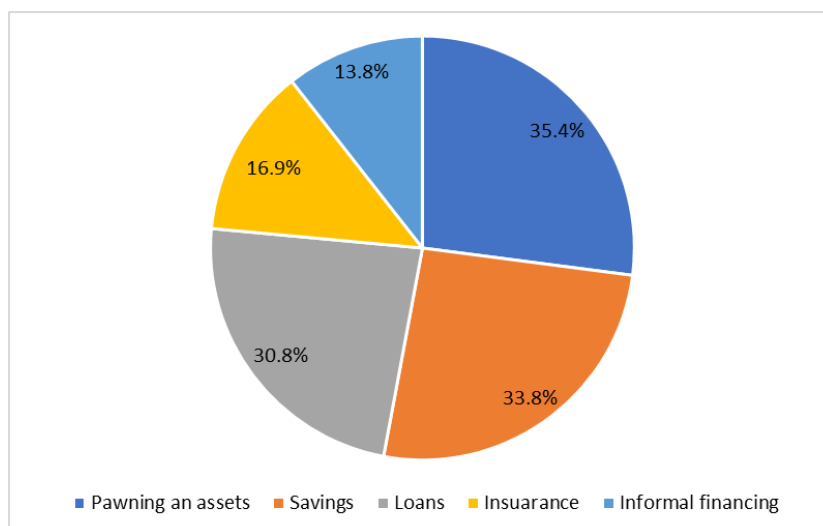


Figure 18: Risk management strategies practiced by the SMEs in the consortium.

Improvement for Current Risk Management Strategies

In response to enhancing their existing risk management strategies, SMEs primarily favored improvements to their business strategies and insurance schemes. A significant number of SMEs indicated that refining their business strategies, which involves developing more comprehensive plans and processes to better manage and mitigate risks, would be highly beneficial. Additionally, there was a strong call for better or more accessible insurance schemes, suggesting that SMEs seek insurance products that are more aligned with their needs and easier to obtain. Increasing savings was also highlighted as an important improvement, reflecting the recognition of the need for financial reserves to effectively handle unexpected risks and damages.

“I spoke to several insurance companies to get a cover to my Mushroom business since I have a set of out growers, they said the out growers must be covered too, but no one really came u with a clear product that can cater to my need, so I gave up” – A mushroom trading entrepreneur.

The alternative business strategies included keeping a stock of raw materials, developing different products, and spreading the business across a larger market. Other areas of improvement included increasing knowledge and training on risk management, creating a government fund to provide support during disasters, and offering low-interest loans. Overall, these preferences underscore a focus on strengthening internal strategies and financial preparedness as key methods for improving risk management.

information on the amount of funds allocated for each type of risk management strategy, did not receive well-defined responses. Most SMEs were unable to segregate or clearly quantify the amounts they allocated for each type of risk. Only about one-third of the respondents provided a relevant answer, while the other responses mostly described the difficulties they faced.

An interesting finding is that of the people who gave a quantifiable answer the majority were allocating more than LKR 10,000 per month for risk management purposes. These funds were sometimes specifically directed to a separate savings account and in other cases spent from time to time on preventive and corrective action such as machine repair and maintenance, stock maintenance etc.

Knowledge of Climate and Disaster Risk Financing and Insurance (CDRFI)

In relation to Climate and Disaster Risk Financing and Insurance (CDRFI), respondents provided diverse responses. The majority were acquainted with the agricultural insurance schemes and the compensation programs administered by district offices for disaster-affected individuals. Additionally, private-sector insurance coverage for businesses was identified as another key mechanism mentioned by respondents.

A slight majority of SMEs, accounting for 52% of the sample, reported being aware of CDRFI (Figure 19). This suggests that over half of the respondents are aware of risk financing and insurance instruments designed to mitigate the financial impact of climate and disaster-related risks on businesses. A significant proportion of SMEs, 44%, indicated a lack of awareness regarding CDRFI (Figure 19). This demonstrates that despite the majority being familiar with these mechanisms, there is still a substantial gap in knowledge among SMEs.

This gap in awareness could expose a significant portion of SMEs to greater vulnerability in the face of climate and disaster risks. The findings suggest a need for targeted educational or outreach programs to ensure that more SMEs are informed about the availability and benefits of CDRFI mechanisms, particularly in regions where businesses face higher exposure to climate-related risks. Enhancing awareness among the remaining 44% could improve their resilience and capacity to manage financial risks associated with disasters, contributing to more sustainable business operations.

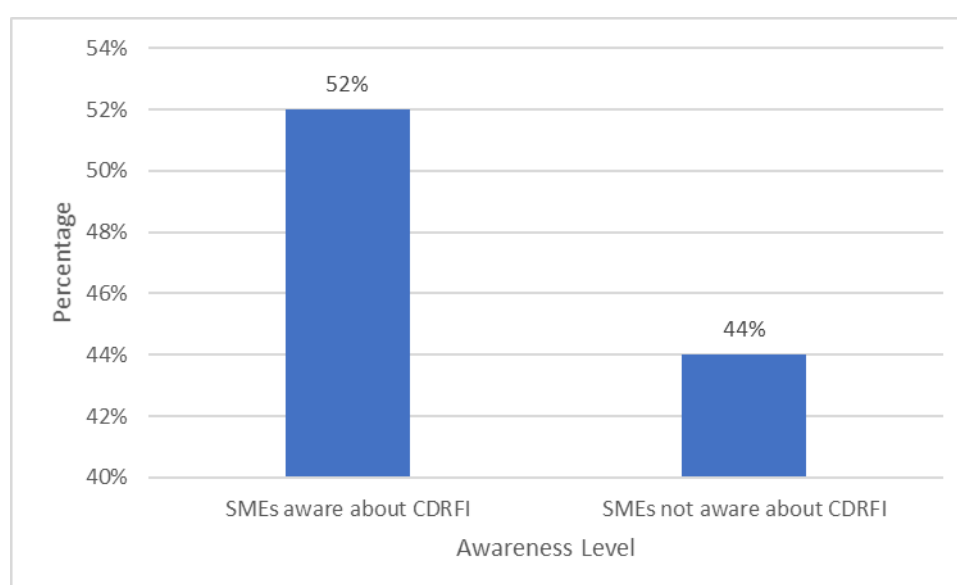


Figure 19: Number of MSMEs, who have heard of CDRFI.

The most commonly mentioned obstacle, reported by 36% of respondents, is financial issues (Figure 20). This likely refers to constraints such as limited liquidity, insufficient revenue, or overall financial instability, which hinder businesses from investing in or accessing CDRFI products. The second-largest barrier, cited by 32%, is a lack of awareness (Figure 20). This indicates that many SMEs are not fully informed about CDRFI options, the benefits they provide, or how to access these financial instruments, underscoring the need for better education and outreach efforts. Approximately 20% of respondents identified low profit margins as an obstacle (Figure 21). SMEs with limited profitability may find it difficult to allocate funds for additional financial protections like CDRFI.

Nearly 18% of respondents pointed to the affordability of CDRFI products as a significant issue (Figure 20). High costs associated with insurance premiums or financial products make them inaccessible to many small businesses. Around 12% reported longer credit recovery times as a challenge, suggesting that extended timelines for financial recovery after disasters make it harder for SMEs to access or benefit from CDRFI products (Figure 20). A smaller percentage (6%) of respondents cited the complexity of CDRFI products as a barrier, indicating that understanding the technical aspects or terms of these financial instruments can deter participation.

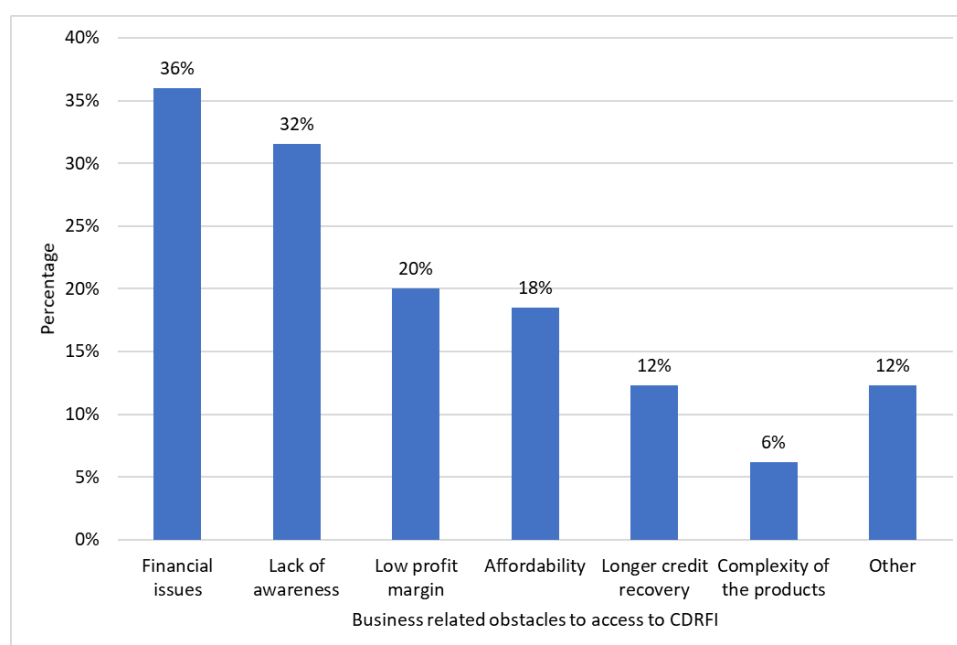


Figure 20 : Business-related obstacle to access to CDRFI

Criteria for CDRFI Product

A critical aspect of the assessment study was to explore the specific criteria SMEs consider when evaluating a good risk management financial tool. The survey included a range of options for respondents to select and rank based on their preferences. Many of the characteristics of a financing tool listed in the questionnaire were new and complex for the respondents. As a result, the feedback revealed that SMEs focused primarily on a few key attributes rather than evaluating all the detailed features. This suggests that while the detailed criteria were important, the decision-making process for SMEs often centred around the most relevant and straightforward aspects of the financial tool. The questionnaire had 30 different features to select and prioritize. The following 5 were the ones marked as priority 1 by most of the respondents.

The data highlights that affordability—particularly in terms of premium costs—is the most important and highest priority feature for respondents. Seventy-one percent (71%) of respondents identified affordability of premium costs as an important feature, making it the most critical aspect among the listed features. Fifty-seven percent (57%) marked it as a level 1 priority, indicating that a majority view the cost of premiums as the primary concern when considering CDRFI.

Sixty-five percent (65%) of respondents identified ease of access via simplified documentation as important, emphasizing the necessity for reducing paperwork to improve accessibility (Table 3). Forty-nine percent (49%) considered this feature a top priority, positioning it as the second most critical factor after premium costs.

Fifty-seven percent (47%) of respondents considered affordability in terms of payment terms, such as flexible payment schedules, to be important. However, only 43% ranked it as a top priority, indicating that while significant, it is regarded as less critical than premium costs and documentation (Table 3). Additionally, 55% of respondents highlighted the importance of ease of payment via online portals, reflecting a growing preference for digital payment methods. Yet, only 40% rated this feature as a level 1 priority, suggesting it holds a lower priority compared to affordability and ease of access features.

Feature	Affordability- premium costs	Ease of Access - Documentation requirements	Affordability payment terms	Ease of Payment - Online Payment Portals	Ease of Access - Availability of Information
A number of respondents selected the option as important	71%	65%	57%	55%	58%
A number of respondents marked this feature as a level 1 priority	57%	49%	43%	40%	37%

Table 3: Criteria for CDRFI Product Development

Despite the lack of trust in current insurance schemes, the SMEs were willing to pay a high premium price for a product that would gain their confidence and cater to their exact needs. The table below indicates the price range SMEs are willing to pay for a trusted product.

respondents' willingness to pay for Climate and Disaster Risk Financing and Insurance (CDRFI) on a monthly basis, categorized into four price ranges [Figure 21].

- Less than 3,000 (9%): Only 9% of respondents are willing to pay less than 3,000 per month for CDRFI. This low percentage suggests that few respondents prefer or are able to afford payments in the lower range, possibly indicating that most respondents recognize the value or necessity of paying more for comprehensive coverage.
- 3,000–5,000 (6%): A smaller percentage, 6%, indicated willingness to pay between 3,000 and 5,000 per month. This further supports the trend that respondents are inclined toward higher payment ranges, reflecting a perceived importance of more extensive insurance coverage, or financial capability for higher premiums.
- 5,000–10,000 (15%): Approximately 15% of respondents are willing to pay within the range of 5,000 to 10,000. This range captures a moderate portion of the respondents, indicating that a notable group finds this mid-level payment amount acceptable for CDRFI, likely balancing affordability and coverage benefits.
- More than 10,000 (41%): The largest proportion, 41%, of respondents are willing to pay over 10,000 per month for CDRFI. This indicates that a significant portion of the population is prepared to make substantial financial commitments, likely recognizing the critical need for robust disaster and climate risk coverage, especially if their business operations are highly exposed to such risks.

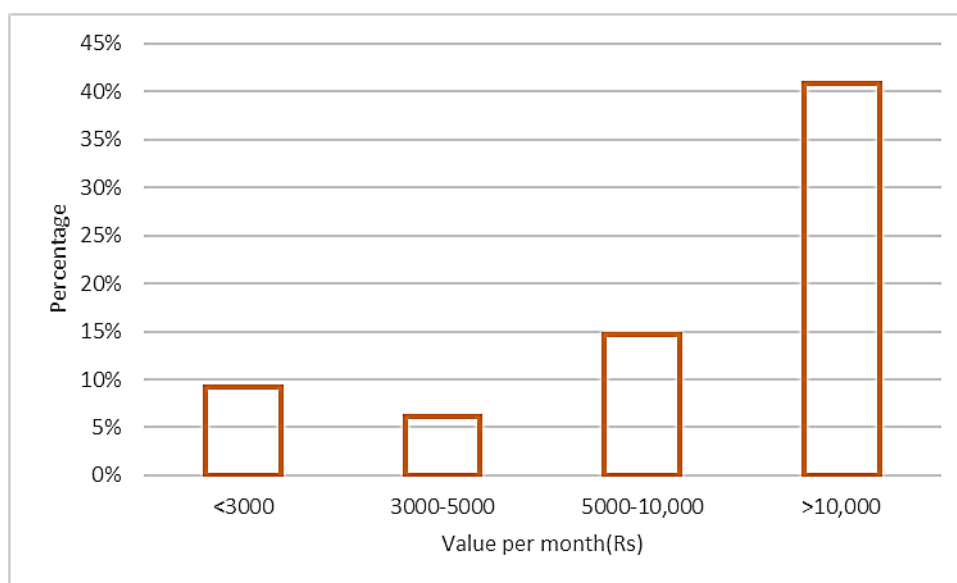


Figure 21: Price range of SMEs willingness to pay for CDRFI

Challenges, needs, and preferences

Figure 22 highlights the primary challenges SMEs face in managing climate-related risks. This distribution indicates that financial and diverse, unspecified barriers are the most pressing challenges for SMEs in managing climate-related risks. The most significant barrier, with 28% of respondents, is financial constraints. This suggests that limited financial resources make it difficult for SMEs to invest in necessary risk mitigation measures. Only 9% of respondents identified technology-related issues as a challenge, indicating that technological gaps, such as access to tools or expertise for managing climate risks, are less of a concern compared to financial limitations.

About 12% cited challenges related to their business processes, such as inefficiencies or lack of preparedness in handling climate risks within their operational frameworks. The largest category, at 33%, falls under "Other," suggesting a wide range of unspecified challenges not captured by the listed categories, possibly including external factors or sector-specific issues.

"This is not something we as SME's alone can do we have so many obstacles to tackle the government should provide more support to SME's during CC related disaster situations, we provide so many job opportunities and add value to economy therefore during hard times there should be supportive mechanisms like low interest, collateral free loans" – Apparel Sector owner.

"There are new technologies to face climate impacts, my greenhouses got damaged due to heavy wind, there are material that can with stand heavy wind conditions, but they are not available here, it is very expensive to import small quantities" – Agricultural producer.

Challenges faced by SMEs managing climate risk

Figure 22 illustrates the challenges SMEs face in managing climate-related risks. Industries that marked climate risks as "Not Challenging," "Very Challenging," and "Extremely Challenging" were further analyzed to examine potential relationships between industry sector, income, and gender.

In the Nuwara Eliya district, a comparatively higher number of SMEs identified climate risks as very or extremely challenging. Among the 22 entities that marked climate risks as not challenging, 13 were

women-owned, 11 were in the apparel sector, and 6 were in the food and beverage sector. Conversely, of the 26 entities that marked climate risks as very or extremely challenging, 15 were women-owned, 9 were in the apparel sector, and 9 were in the food and beverage sector.

This analysis indicates that there is no specific sector or industry more vulnerable than others within the consortium's represented sectors. The consortium did not include many primary producers, who are often highly vulnerable to climate change impacts. Each sector becomes vulnerable in its own way due to the integrated and interdependent nature of the micro-economies within the districts. The findings suggest that climate risks are pervasive across different sectors, affecting businesses in varied ways depending on their specific circumstances and interconnections within the local economy.

“My cement products tend to crack during high heat period , very difficult to keep the quality of the product and workers become tired very soon therefore productivity is lost when there is high heat”
– souvenir and statue manufacturer.

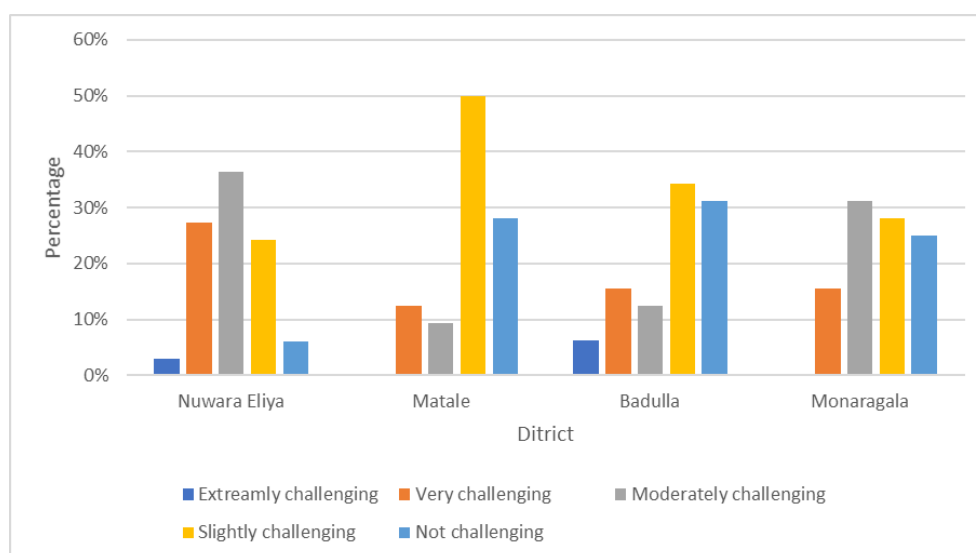


Figure 22: Level of Challenges faced by SMEs in managing climate risk

Matale

Table 4: The industries marked “Not Challenging” are given below with district-level segregation.

Sector	Products	Annual Revenue	Women Led
food & Beverage	Yoghurt, Yoghurt Drink, Curd, Iced drinks	30 million	Yes
Apparel(bag	travelling bags , side bags , laptop bags , Army bags, school bags	1.8 million	Yes
Apparel(bag	Teddy Bear	2 million	Yes
Industrial products	dehydration machines	90million	Yes
food & Beverage	Snacks	30 million	No
Apparel(clothing)	Shoes and T shirt embroyding	24 million	Yes
Apparel(clothing)	power loom, Batik garments	8 million	No
food & Beverage	Murukku/Mixture/Kokis/ Bits	4.5 million	Yes

Badulla

Sector	Products	Annual Revenue	Women Led
Apparel(clothing)	all kind of bags, toys	14 million	Yes
Tourism	Insert Comment	0.6 million	No
Crafts & Ornaments	items from coconut shell	3.6 million	Yes
Apparel(clothing)	kids ware, pregnant mothers' clothes	3.6 million	Yes
food & Beverage	jam, bakery items	9.5 million	No
Industrial products	plastic items, bends pipes	2.8 million	No
food & Beverage	drinking water	7.2 million	No

Monaragala

Sector/Industry	Products	Annual Turn Over	women-led
Apparel(clothing)	T Shirt, Trousers	1,872,000	No
Crafts & Ornaments	Plastic Toys	6,000,000	Yes
Apparel(bag)	uniforms , Bags, Purse	4,800,000	Yes
food & Beverage	Fruit Pulp	16,000,000	No

N'Éliya

Sector/Industry	Products	Annual Turn Over	women-led
Apparel(clothing)	all boys shorts and trousers	3.6 million	Yes
Apparel(clothing)	Trouser, Uniforms, shirt, coat for Gents	3.6 million	No
Apparel(clothing)	Finished clothing	8 million	Yes

Table -5 The industries marked Very & Extremely Challenging are given below with district segregation.

Matale

Sector/ Industry	Products	Annual Turn Over	women-led
food & Beverage	Natural Honey, Juggery,	10 million	Yes
Apparel(clothing)	women clothing with natural colours	3 million	Yes
Apparel(clothing)	Ladies Wear, Gents Wear	69 million	Yes
Apparel(clothing)	Jackets, Health care dresses	30 million	Yes

Badulla

Sector/ Industry	Products	Annual income	women-led
Industrial products	Bulb, Xray illuminator, Table Lamp	3.6 million	Yes
Apparel(clothing)	Ladies and gents wear	6 million	Yes
Organic & agricultural products	6 types of mushrooms and related products	7.2 million	No
food & Beverage	Chutney, cookies, sweat items	1.8 million	Yes
food & Beverage	Murukku, Mixer, grain, Box bite, Peanut	1.5 million	No

Organic & agricultural products	Vegetables, coir peat grow medium, green house construction	15 million	No
Flor & Horticulture	Roses and other ornamental plants	8 million	No

Monaragala

Sector/Industry	Products	Annual Turn Over	women-led
Tourism	Eco friendly tourism	2,000,000	Yes
Crafts & Ornaments	Cement based products	3,600,000	Yes
food & Beverage	Diary products	2,600,000	Yes
Medical & Herbal products	Honey based products	7,000,000	No

NÉliya

Sector/Industry	Products	Annual Turn Over	women-led
food & Beverage	Treacle, Juggery	2.1 million	No
Apparel(clothing)	Underwear, Batik ware, ladies and gents ware	6 million	Yes
Apparel(clothing)	pillow covers , jersey, shalwar , bottom , house coat , saree blouse	0.15 million	Yes
food & Beverage	yogurt, ice cream, curd	1.5 million	No
Apparel(clothing)	Baby dresses	1.5 million	No
food & Beverage	Yogurt drink, Yogurt, curd, ice-cream, Paneer, ice pack	1.5 million	No
Apparel	Bags	0.5 million	Yes
food & Beverage	Milk toffee, other sweet products	1 million	Yes
Apparel(clothing)	All kind of Ladies and Gents wear	7.2 million	Yes
food & Beverage	Vegetable Strawberry Jam/Juice	8 million	No

The information reveals that the majority of SMEs vulnerable to climate impacts in Monaragala and Matale are women-led organizations, it was not possible to identify specific reasons for this. However, the situation is more balanced between men- and women-owned SMEs in the other two districts. Similarly, SMEs facing less impact from climate-related issues is skewed towards women-owned entities in Matale and Nuwara Eliya districts.

It is difficult to highlight any particular industry facing difficulties due to climate-related impacts. For example, in Nuwara Eliya, among the 10 industries that rated climate risks as very/extremely challenging, five are from the apparel sector and five from food and beverage. However, the three entities that reported no impact from climate-related situations were all from the apparel sector.

The discussion with the interviewees were not structured to gain deeper insight to get reasons as to why they mentioned high vulnerability, this is aspect should be taken into consideration when developing future training and capacity building sessions and develop suitable tools helping the SME's to assess their vulnerability and recognise methods of improving their resilience.

Section 8 of the questionnaire focused on the needs and preferences of SMEs when selecting a suitable insurance product to cover climate disaster-related incidents. The questions were open-ended, allowing respondents to express their opinions freely. They struggled to clearly distinguish between preferences and features, resulting in similar responses to both questions. The responses were categorized into broad themes, summarized in tables 6 and 7 below.

Ability to get compensation without delay during a disaster	11
Trust	6
flexibility in payment conditions, frequent reminders	5
Other	5

Table 5: Prioritizing Features when developing a CDRFI

Trust	15
flexibility, quick response	20
Other	16

Table 6: SMEs need and preferences of CDRFI

The most common information sources SMEs look for when trying to find out about CDRFI instruments are social media and mass media [Figure 23], followed closely by banks and insurance companies, NGOs, other sources (including government entities and the private sector), and peers. SMEs that already had insurance considered banks and insurance companies to be trustworthy sources of information. However, the majority of other SMEs, who primarily mentioned mass media and social media as their main information sources, did not show confidence in obtaining information from insurance companies.

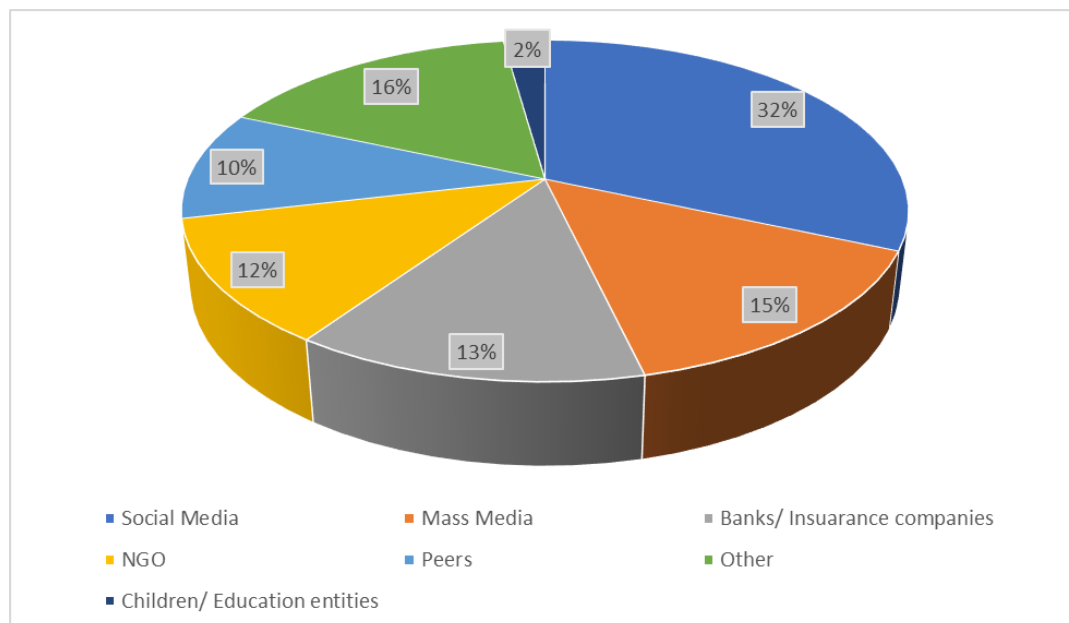


Figure 23: Where does SME seek information and guidance on risk management and financing

The interviewees believed they lacked sufficient knowledge and awareness of CDRFI tools and were open to obtaining training and capacity building. more than 90% of them were interested in attending training or capacity-building sessions, [Table -7], but the comments made by them also revealed that time is valuable for them hence the sessions should be very well developed targeting their real needs.

They were also interested in sending other employees for training as well.

10.1 -Would your SME be interested in participating in capacity-building workshops or training sessions on climate risk management and CDRFI	
Yes	116
No	8

Table 7: Interest in participating in CDRFI capacity building.

10.2 how many employees would you nominate to attend such workshops?	
1	37
2	47
3 or More	29

Table 8: Number of participants that can attend.

The key messages conveyed by the SMEs regarding CDRFI instruments and the support required to overcome the challenges imposed by climate change impacts are summarized in the following table. These statements reflect the most commonly mentioned concerns and needs of the SMEs.

1. Make information clearly available with regard to Insurance schemes
2. The business is vulnerable to climate impacts, the owner is aware and is taking steps to adapt, but needs more training and support to adapt to these challenges
3. I have faced various threats due to climate change, found ways to adapt, need logistical and financial support to implement the plans
4. Good training on climate change issues and how to adapt should be given to out-growers
5. On-the-spot CDRFI instruments are required to support SMEs during a disaster strike.
6. Insurance companies should build trust by helping at the right time
7. Need to have flexible schemes to fit into the different nature of businesses
8. SMEs want to find new ideas to face climate change disasters
9. Apart from supporting on time during a disaster they should also advised on how to adapt and avoid getting into trouble
10. There should be flexible compensation schemes based on the time and nature of the impact on the business
11. Instead of giving back the money we deposited, it should give some other benefits
12. Must be trustworthy, explain clearly the details, and be flexible
13. Capacity-building sessions for SMEs on managing climate-related threats
14. If the business pays the premiums for a period and no disaster strikes, pay back some of the money
15. Built trust, and payout without a hassle during disasters
16. Strong Government policies
17. Support the business to grow as well as risk transfer for employees as well

18. Insurance should be people problem-oriented,
19. training and capacity development on CC impact handling is a must
20. Government intervention is a must

Table 9: Suggestions for improving the accessibility and effectiveness of climate disaster risk transfer instruments for SMEs in Sri Lanka.

Key Findings

Climate change impact on SME's

From the direct responses, it becomes clear that climate change-related impacts or unpredictable weather conditions are not the primary concerns for SMEs. Instead, they highlighted several other pressing issues they face in the current context. The major issues mentioned include:

- Economic Crisis: The ongoing economic instability has a significant impact on their operations, affecting their financial health and growth prospects.
- Cost of Input Materials: Rising costs of raw materials and inputs are straining their budgets and reducing profit margins, making it difficult to sustain operations.
- Energy Costs: The high and fluctuating costs of energy are a major burden, particularly for those SMEs that rely heavily on electricity and fuel for their production processes.
- Lack of Market Access: Difficulties in accessing markets, both locally and internationally, are limiting their sales opportunities and revenue generation.

These concerns reflect the broader economic challenges that SMEs are facing, overshadowing the immediate impacts of climate change. While they acknowledge the importance of addressing climate risks, their current focus is on overcoming the more immediate economic hurdles to ensure their survival and growth. This context emphasizes the need for holistic support that addresses both economic and environmental challenges faced by SMEs.

Further, the data indicates that while a significant number of SMEs reported experiencing minimal direct climate-related disruptions over the past five years, other underlying risks, such as low sales and high material and energy prices, are indirectly connected to climate-induced incidents. Here's a deeper look into the findings:

- Frequency of Disruptions: Seventy-seven percent (77%) of SMEs reported experiencing 0 or 1 climate-related disruption over the past five years. Seventy-three percent (73%) mentioned that climate-related disruptions are rare or occasional for their businesses.
- Indirect Climate Impacts: Despite the low frequency of direct disruptions, many SMEs face economic challenges linked to climate events. For example:

An entrepreneur in the Food & Beverage sector explained that heavy rains make firewood scarce, which affects their business operations. More critically, they highlighted that farmer incomes drop during rainy periods, leading to a decrease in sales for their business. This example underscores how climate-related incidents can have cascading effects on sales and income.
- Predominant Climate Concerns: When SMEs consider climate change impacts, unpredictable heavy rains are identified as the most significant issue. These rains cause:
 - Supply Chain Disruptions: Raw material shortages and crop damage, particularly in the agriculture and food sectors.
 - Logistics Challenges: Disruptions in transportation and supply chain logistics, notably in the apparel industry.
- Additional Concerns: Heatwaves and droughts were also frequently mentioned as causing business disruptions, affecting water availability, crop health, and overall operational stability.

This understanding reveals that while SMEs may not always directly link their challenges to climate change, the broader economic and operational impacts are deeply intertwined with climate-related factors. This insight is crucial for designing targeted interventions and support mechanisms that address both direct and indirect climate risks faced by SMEs.

The risks identified by the businesses are a testament to the significance of climate issues. Among the top 5 risks identified by businesses, 47% are directly related to climate issues such as rain and drought. Out of the remaining 53%, which includes financial, business process, and economic issues, a significant portion is influenced by climate change-related factors.

An important finding from the survey is the mindset of the entrepreneurs. From their statements, it was evident that weather patterns have changed, and unpredictability is high, which significantly impacts their businesses. However, they view these challenges as opportunities to find alternative approaches and strategies to overcome them. The following extract is a statement made by several respondents.

“Whether there are financial tools or not we have to do our business we need to make a living so we will somehow have to find solutions and battle our way through these situations.”

Many SMEs state that the initial phase of adapting to climate-related impacts and disasters involves adjusting and improving their business processes. This includes increasing storage capacities, modifying production patterns, and adopting new technologies to mitigate the impact of disasters.

“My home got flooded in 2018 and I lost all the textile I had with me , I had to start from scratch the business, I pawned the jewellery I had to restart the business”- woman small garment workshop owner.

SMEs have realized that they need further training and capacity building on adapting to climate change-related impacts as well as how CDRFI schemes work, they believed these trainings should be very focused and catered to specific needs.

Gender implications in CC impact on SME's

The analysis of general demographic information indicates that the SME consortiums are well represented in terms of both genders. Notably, the share of women ownership in SMEs is generally low in the south asian region, with literature indicating that women-owned SMEs account for less than 10 percent in South Asia (IFC, 2014). However, the higher representation of women-owned SMEs in the selected sample could be attributed to concentrated efforts over the past decade by NGOs such as Chrysalis, as well as government programs aimed at empowering women entrepreneurs. These initiatives have likely played a significant role in increasing the participation of women in the SME sector in this region.

“When I first started the business 10 years ago , I wanted to get a 200,000 loan no bank was willing to give a loan to me they think a women cannot do business, I had to borrow money at a very high rate, today due to my success banks are coming after me offering loans”. – woman Avurvedic medicine entrepreneur.



Image 3: Women Entrepreneur in Apparel Industry.

In the surveyed sample 70% of the SMEs, women comprised the majority of employees. This highlights two important factors:

- The critical role SMEs play in empowering and providing livelihoods to women. This is recognized in the statement, “Women entrepreneurs are better at achieving development goals, as women are found to reinvest more in families and communities” (International Trade Centre, 2014).
- The negative aspect that adverse climate change impacts on SMEs will disproportionately affect women.

This dual aspect underscores the importance of targeted support for women in the SME sector to mitigate the adverse effects of climate change and leverage their potential for community development.

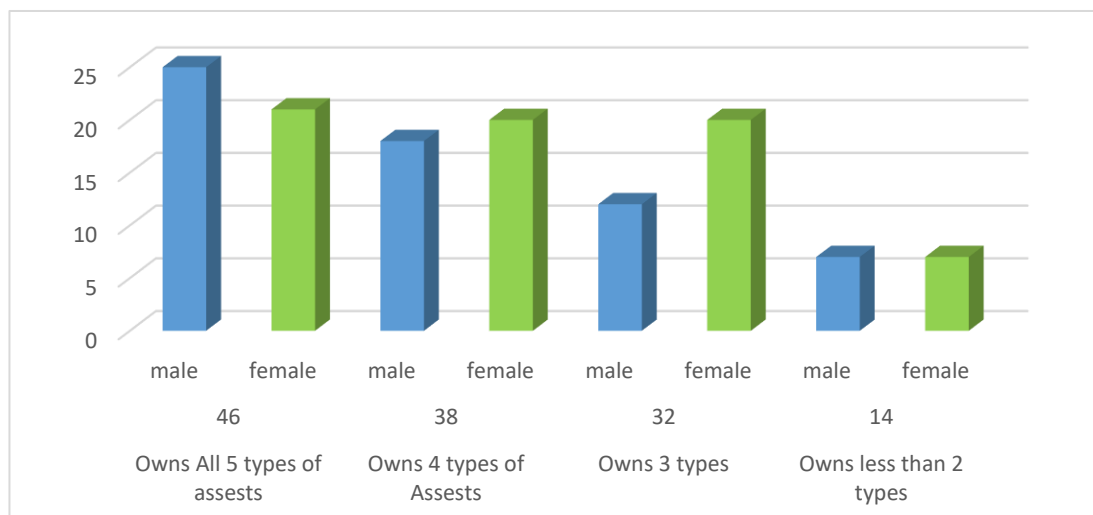


Figure 24: Assets Ownership and Gender

Ownership of assets and connections to networks are crucial factors in determining the resilience of SMEs. The study explored the ownership of five key types of assets necessary for running a business: land, buildings, machinery, vehicles, and tools. The findings revealed that a significant majority of

SMEs in the four districts (66%) possess either all five or four of these assets. Notably, the duration of business operations did not significantly affect asset ownership, as even among the nine SMEs established within the last five years, five owned at least four of these critical assets. Yet a notable difference was observed in women owned SME's being less in owning 4 types of assets and high in owning 2 or lesser types of assets which requires further understanding on gender implications on asset ownership.

Furthermore, the study highlighted the strong network connectivity of these SMEs. A total of 108 entities reported being part of various networks at the village, district, and provincial levels. This connectivity is a testament to the success of training, capacity building, and networking support, particularly for women-led SMEs, provided by the SME consortium during the COVID-19 recovery process. The data suggests that women-led SMEs can perform on par with male-owned entities.

Despite these positive indicators, several challenges remain. Many respondents pointed out the tedious processes involved in submitting required documents and collateral when obtaining loans. Some female entrepreneurs reported facing harassment and undue remarks when seeking loans, which undermined their confidence in succeeding as businesswomen. This underscores the importance of continuing to create platforms that offer knowledge, skills, and networking opportunities to women entrepreneurs, providing them with the social and moral support needed to navigate such adverse situations.

"3 years ago during COVID period when I went a particular bank to get a recovery loan for my business, the official told me that I don't have the criteria fulfilled to obtain a loan, and he asked me to call after office hours so he will help me to obtain a loan, this situation was very intimidating and after that I did not go to that bank"- Women entrepreneur running a handy crafts business.

"I have a slight disability in my left leg but that doesn't deter me when I am doing the business at the moment I give employment to about 5 women from my business, but whenever I go to a bank they look at me like a person who cannot run a business and is very reluctant to give loans – A women entrepreneur running a broom production business.

Social barriers, particularly concerning security, also pose challenges for female business owners. For instance, one woman entrepreneur in the interior decorating business mentioned that her work requires traveling to clients' locations, often during non-working hours. Due to safety concerns, she is compelled to travel with her brother or husband, which limits her ability to expand her sales. Similar situations were reported by other women entrepreneurs engaged in sales operations, highlighting the need for addressing these gender-specific barriers to enhance the overall resilience and success of women-led SMEs.

Risk financing tools for SMEs.

SMEs are reasonably financially literate and capable of dealing with structured processes of maintaining an account (98%) with a Bank and obtaining loans (81%). There is no major gender disparity observed in obtaining loans both male and female owners have been able to obtain loans,

Engagement with insurance products is widespread on an individual basis, with 52% of the respondents having life insurance.

SMEs that have business insurance are very low, only 17%. It was very clear that the lack of trust among insurance products is the main reason for SMEs to obtain business insurance. Some of the statements made by the respondents are given below.

“I don’t advise anyone to take a business insurance, what they say at the time of selling the product and how they act when an incident happens is different, it is much better to invest in assets such as Gold or land and liquidate it when you are in need”.

“When they come and try to sell a business insurance according to how they explain we feel that at that instance our building is going to catch fire and burn when an accident happens, they find more than 1000 reasons not to pay compensation”.

“They never explain the hidden terms in the agreements, we don’t go to read all these, therefore, they always have a way to escape.”

The most preferred risk management strategy for SMEs is to increase savings and invest in quickly liquidatable assets, with 69.2% of respondents choosing this approach. Another 30% prefer loan schemes, while 16.9% mentioned preferring insurance schemes.

The key attributes of a CDRFI are gaining the trust of the business community, having very clear terms and conditions and communicating them in simple language to the client, and having flexible products that can cater to the specific needs of different businesses (e.g.: there are businesses without-grower systems they need to cover the out growers as well, as they are the most vulnerable to climate impacts)

If trust is gained and a suitable product is developed 93% of the SMEs are willing to pay more than 15000 per month for such an insurance product.

Other issues

By comparing the age categories of the proprietors/owners where majority represent the age group between 30-49 years and the established time periods of their businesses which is more than 10 years, it appears that most entrepreneurs tend to start their businesses in their late 20s to early 30s. This justifies the reasons that to start a business one needs to have a related experience in the field and have accumulated some assets to start the business. hence most of the established owners of SME’s tend to be in middle age. Education level beyond O/L is attained by 95% of the owners of SMEs, this is due to the fact that a reasonable level of education is required to successfully manage a business under current conditions especially handling finances and legal matters.

“I have created a network of out-growers , this took more than 8 years to develop now there are suppliers from 6 districts who provide their mushrooms to me” - Businessmen engaged in mushroom production.

Out of the 5 who have an education below O/L, there are no women entrepreneurs. This point was discussed under gender implications as well given the social conditions in the country where still major leadership positions are dominated by men, it may be difficult for a women entrepreneur to succeed without a decent education level. This was highlighted by some of the experiences women entrepreneurs faced during the start of their business when reaching to banks and regulatory support institutions. This makes handling financial and legal matters difficult for a person with low education background.

Diversity in the SMEs in the N’Eliya district is low compared to the other 3 Districts, where Badulla, Matale, and Monaragala have 8 or 9 types of industries represented while N’Eliya has only 4.

The level of value addition by the SMEs given below indicates that in N'Eliya and Monaragala the SMEs are mostly engaged in primary level value-adding processes, whereas in Matale the SMEs are more engaged in higher level (process industry) of value addition.

Level of Value Addition	Badulla	Matale	Monaragala	N'Eliya
Primary (Primary Producer, Input supplier, collector)	20%	14%	34%	34%
Process (Industrial Processing, Packaging)	36%	44%	30%	37%
Sales (Wholesale, Retail)	44%	42%	36%	29%

Table 10: District wise Level of Value Addition in Industries.

Engaging in statutory processes such as EPF/ETF registration and income tax registration is low, mainly due to the processes being very tedious and a lack of knowledge among SME owners.



Image 4: Interviews with Entrepreneurs.

Conclusions & Recommendations

The following conclusions are made based on the key findings of the scoping study, it should be noted that the population will be the 200 SMEs that are members of the district-level consortiums and cannot be generalised to the entire SME population in the 4 districts.

- CC impacts are a major component of the risks faced by SMEs.
- A gradual and layered approach is required to improve the capacity of SMEs to face CC impacts and disasters.
- Of the people affected by the adverse impacts of CC on SMEs, the majority will be women.
- CDRFI tools have to cater to the diverse needs of SMEs to gain their trust.
- For a successful insurance scheme to operate sufficient risk mitigation, avoidance and adaptation steps should be taken by insurers.
- for trusted flexible financing tools SMEs are willing to pay a high premium.

Recommendations

The recommendations are made based on the key findings, conclusions derived and linking the suggestions made by the SMEs during the interviews.

- Establish platforms with multiple stakeholders with various expertise to support SMEs in providing advice, guidance and capacity building on CDRFI.

- Develop a comprehensive localised toolbox to enable SMEs to take decisions on steps they need to take to improve their resilience in the face of CC-related impacts & disasters (e.g.: business process improvements based on impact on value chain, technology adoption, increase of savings etc).
- Develop various financial and non-financial tools to support the risk mitigation, avoidance and adaptation stages of a SME.

- Training

Training programs should target developing the capacities of SMEs in assessing the risk and making decisions on selecting tools for **appropriate mitigation, avoidance, and adaptation measures** according to the business value chain. The training programs should very strictly consider the time constraint faced by owners when attending and focus on their exact needs.

- Loan Schemes

Various loan schemes can be quickly deployed for the adaptation needs of a business during adverse weather conditions.

There should be dedicated loan scheme to support women entrepreneurs as well as youth, without having collaterals to be provided but instead based on business plans and capacity of the entrepreneur.

- Working capital advancing schemes

Short term financing schemes should be made available for SMEs(similar to the practice made available for rice millers), enabling them to maintain stocks of raw materials, hire additional employees, and operate extra shifts during abnormal or adverse weather conditions.

- Infrastructure sharing mechanisms.

Develop infrastructure such as common material storage facilities, transport pooling systems, and common energy back systems to facilitate operations of SMEs during disaster periods.

- Industry agreements.

A useful practice can be learned from the paddy cultivation sector in Sri Lanka, where during water scarce periods the farmers using common water resources get together and agree on a common quota system to use the water, similar practices could be adopted in sectors where raw material supply becomes scarce during adverse weather conditions(eg: milk supply, treacle) ,in this way enterprises can sustain during hard periods. There should be collaboration between government entities and industry consortiums to develop such systems.

It is evident that developing suitable CDRFI for SMEs requires long-term, detailed studies. Multiple stakeholders should be engaged in this process. It should also be noted that despite SMEs being the main beneficiaries, their time and resource availability to engage in this process is very limited. The government should play a pivotal role in facilitating an enabling environment for such interactions to take place. Knowledge sharing and learning from international best practices will support the expedited development of suitable risk financing tools.

Annexures

Annex-1: Questionnaire

Annex-2: District Level Data Sheets