

Feasibility Study

Affordable Insurance Package(s) for Micro, Small and Medium-sized Enterprises in Sri Lanka Covering Flood Disaster Damages



submitted by

UNEP CCC

Asian Disaster Preparedness Center

Global Business Counselling Pte Ltd

JBA Risk Management

Sanasa General Insurance

The Ceylon Chamber of Commerce

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List of Abbreviations

ADB	Asian Development Bank
ADPC	Asian Disaster Preparedness Center
A-PAD SL	Asia-Pacific Alliance for Disaster Management Sri Lanka
APP	Asian Preparedness Partnership
BBCR	Building Businesses Climate Resilience
CBi	Connecting Business initiative
CCC	Ceylon Chamber of Commerce
COVID-19	Coronavirus disease 2019
CRes MPA	Climate Resilience Multi Phased Programmatic Approach
DMC	Disaster Management Centre
DRR	Disaster Risk Reduction
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GIS	Geographic Information System
GiZ	Gesellschaft für Internationale Zusammenarbeit
GWP	Gross Written Premiums
IDI	in-depth interviews
IFRM	Integrated flood risk management
ILO	International Labour Organization
IMD	India Meteorological Department
IRC SL	Insurance Regulatory Commission of Sri Lanka
IIF	InsuResilience Investment Fund
ISF	InsuResilience Solutions Fund
LKR	Sri Lanka Rupee
LNGOs	local non-governmental organizations
MSME	Micro Small and Medium Enterprises
NITF	National Insurance Trust Fund
NNDIS	National Natural Disaster Insurance Scheme
OCHA	Coordination of Humanitarian Affairs
PPP	Purchasing Power Parity
RIIA	Regulation of Insurance Industry Act
RIMES	The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia
SAsiaFFGS	South Asia Flash Flood Guidance System
SLPP	Sri Lanka Preparedness Partnership
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP-CCC	United Nations Environment Programme – Copenhagen Climate Centre
USD	United States Dollars

General Guide

1. Exchange Rate:

This feasibility study was carried out during March - July 2022. Due to the recent extreme political development in the country during this feasibility study, the local currency, Sri Lanka Rupee (LKR) value has experienced a drastic drop since early March. All the LKR values listed in this study (including the field survey and interviews) refer to the currency value prior to March 2022, where the exchange rate to US Dollars (USD) refers to 1st March 2022 data, which was 1 LKR = 0.0049 USD. All the other values (LKR and USD) cited from previous studies remain the value at the time when the respective studies were carried out.

2. Purchasing Power Parity (PPP) per capita per day

Data on PPP per capita per day for the MSME segment in Sri Lanka is not available, hence an assumption was made based on the following data:

- a. The country's gross domestic product (GDP) per capita, PPP (2021) was USD 12859¹, so nationally PPP per capita per day would be USD 35.23.
- b. Data on the income of MSME segment is not available either, but an earlier study² indicated that over 40% of the SMEs who disclosed their income details reported a monthly income of less than LKR 50,000. Given that the study was conducted in 2012 and taking inflation of 4% for 9 years into consideration, it can be estimated that around half of the SMEs have a monthly income less than Rs.71,165 in 2021. Applying PPP converter tool³, around half of the SMEs have a PPP (per business/household) per day less than USD 44⁴.
- c. The latest data on average household size (2016) was 3.8⁵.

Based on the above data, an assumption could be made as, around half of SME (excluding micro segment) has a PPP per capita per day less than USD 11.6. When taking the micro business segment into consideration, the estimated average PPP per capita per day for the entire target group (MSMEs) shall be even lower than USD 11.6, due to the lower income level of the micro segment.

¹ <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=LK>

² World Bank, 2012.

³ <https://www.chrisross.com/PPPConverter/>

⁴ Data from this feasibility study field survey shows, the average annual losses due to floods varied between LKR. 170,000 and 2 million, which was 25% to 45% of their annual revenue Hence the investigated MSMEs' average monthly revenue is estimated between LKR 31,481 to 666,666. Applying this number (revenue, not income or salary) the PPP converter tool, the respondent MSMEs have a PPP (per business/household) per day between USD 19.5 and 414.

⁵ Central Bank of Sri Lanka, 2020a.

Affordable Insurance Package(s) for Micro, Small and Medium-sized Enterprises in Sri Lanka Covering Flood Disaster Damages

1. Executive Summary

1.1 Objective(s)

Flooding is currently the largest contributor to Sri Lanka's average annual losses from disasters, amounting to approximately USD 200 million per year⁶. However, Micro Small and Medium Enterprises (MSMEs) in Sri Lanka are not well covered by risk transfer measures such as insurance. While there are some existing insurance products related to flooding, they are neither specific to MSMEs (especially micro enterprises), nor do they specifically focus on damage by floods - which leads to a relatively high premium (as the insurance products usually cover more than floods risk, it often has a higher premium than an insurance cover for a single peril). A previous study in 2019⁷ shows that on average 31% of businesses (13.2% - 62.2% depending on location) might potentially purchase flood insurance if a suitable product was available. Moreover, various stakeholders like MSMEs, government and insurance providers would be willing to cooperate with experts and deliberate on possible solutions for flood insurance. This calls for greater and more transparent dialogue between MSMEs, insurance providers and other stakeholders, to develop and introduce risk transfer solutions to fill this gap.

To provide a more detailed market investigation on the demand for new insurance products and the willingness to pay premiums, this feasibility study analyses the need for such an intervention. The study is funded by ISF as part of the application process for further funding to help introduce suitable risk transfer mechanisms, in the form of disaster risk insurance, for the segment of the affected poor and vulnerable population of Sri Lanka represented by MSMEs. The objective of this study is to provide evidence on whether new flood risk insurance products are likely to fill the demand gap in the Sri Lankan market, and if they can eventually help MSMEs in building resilience and adaptive capacities to flood risks.

⁶ World Bank, 2020.

⁷ UNEP DTU Partnership, 2019. (Building Businesses' Climate Resilience (BBCR) Report on Baseline Mapping Exercise, full report is listed as Appendix 3)

1.2. Tasks and methodology

This feasibility study was conducted between March and July 2022. The study followed a mixed approach, including desk research and analysis, and field investigation (survey and interviews, see Appendix 4). The field investigation aimed at collecting first-hand data in: 1) providing the flood profile of Sri Lankan MSMEs; 2) mapping the current flood risk insurance products in the Sri Lankan market; 3) identifying the demand for such products by MSMEs; and 4) understanding the MSMEs' preference and willingness to pay for such potential insurance product(s).

Geographically, three districts, Gampaha, Kalutara and Ratnapura were selected as the study areas (Figure 2.2), due to the consideration of: 1) during the previous four decades these three districts have been the most vulnerable and affected by floods⁸ and 2) the large number of MSMEs operating in these three districts.

1.3. Main Results

1.3.1 MSME sector's flood management profile

MSMEs account for 52% of the country's GDP and have become the main source of income to approximately 2.255 million people in the non-agricultural sector. The field survey shows that all MSMEs have experienced floods, with more than two thirds of them experiencing flooding at least once a year. MSMEs' losses due to floods vary from LKR. 170,000 to LKR. 2 million (USD 850 – USD 10,000), accounting for on average of 25% - 45% of their revenue (source: Survey report, Section 4.1.6). Many ongoing and recently concluded adaptation initiatives and projects targeting MSMEs in Sri Lanka indicate that there is adequate awareness of flood risk among relevant stakeholders.

1.3.2 The regulatory framework and setup for new insurance programs for MSMEs

The specific legislation that governs the insurance industry in Sri Lanka is the Regulation of Insurance Industry Act No. 43 of 2000 (RIIA). The insurance industry is regulated and supervised by the Insurance Regulatory Commission of Sri Lanka (IRCSL). However, the

⁸ According to BCCR Report on Baseline Mapping Exercise (2019), the meteorological hazard is greatest in the southwestern and northeastern quadrants of the country, Gampaha and Kalutara districts are located in the Western Province and Ratnapura district, as the gem-mining centre of the country, is in the Sabaragamuwa Province.

Agricultural and Agrarian Insurance Board, Sri Lanka Export Credit Insurance Corporation and the Social Security Board do not fall within the purview of the RIIA.

As in the case of most countries, there are no special regulatory provisions for microinsurance nor index-based insurance in Sri Lanka. While several insurers registered under the RIIA are offering microinsurance products, due to high administrative costs, they are unwilling to market affordable microinsurance products to the low-income sector. To launch a new insurance product, it is necessary to obtain the regulator's (IRCSL's) prior approval. A Circular which was issued on 23rd March 2021 by the IRCSL mentions the necessary requirements to be fulfilled prior to launching any insurance product in the Sri Lankan insurance market. Insurance providers are required to pay close attention to the customer requirements and to have clear communication about the new product/s in the market as enshrined in the Principles on Fair Treatment of Customers issued as guidelines to the insurance industry by IRCSL.

1.3.3 Supply of flood coverage for MSMEs

In the Sri Lankan insurance market, there are no insurance products which cover flood/natural perils only. However, it is possible for MSMEs to obtain insurance for flood and other natural perils (damages due to wind, cyclone and earthquake) as optional covers or under some packaged policies where these perils are in-built⁹, in order to cover assets including buildings and contents (e.g. furniture and few electrical/ electronic items for dwellings and, furniture, equipment and stocks for commercial property). Most of the customers when purchasing an insurance to cover building and contents or motor vehicles usually select "Natural Perils" cover. Insurance providers in Sri Lanka have not been able to penetrate the MSME sector with flood risk insurance in a large scale. The field survey showed that only 22% of micro, 37% of small and 45% of medium enterprises had business insurance which primarily have property cover (Fire and allied perils). Coverage against flood damages is even lower (11% of micro, 12% of small and 14% of medium). This low penetration rate arises from the MSMEs' lack of trust and resulting negative perceptions towards insurance, and their assumption that the premium would be prohibitive high (the survey showed that the premium level that MSMEs are willing to pay is not very high (Figure 5.6)). There are also challenges arising from the side of insurance

⁹ Rates for property covered under package policies where flood cover is inbuilt, ranges from .05% to .1% on the sum insured. Rate for flood peril (optional) only, ranges from .01% to .02% depending on the location. Also flood cover under most policies is subject to a minimum excess (to be borne by the insured) of 10% each loss. Rates for parametric and hybrid products are unavailable. (data source: Sanasa)

providers, citing erratic record keeping by MSMEs, difficulty in assessment of assets and opportunity-cost as unfavourable.

1.3.4 MSMEs' demand and willingness to pay for flood coverage

The field survey indicated that around half of surveyed MSMEs face damages and losses owing to floods. There is a high percentage of MSMEs affected by floods at least once a year and these affected businesses depend heavily on financial and other assistance to recover. Insurance companies' reach to businesses at the micro level is very limited, which reflects the low level of resilience in this business segment. However, the survey also revealed MSMEs' interest in adopting/considering adopting an insurance package specifically designed for flood risks. Hybrid (blended indemnity and parametric) policy was eminent as the most preferred option, for which around half of the micro and small enterprises owners showed interest in trying the Hybrid Policy and wanted more information to finally decide. The market potential could be greater due to 37% of micro and 49% of small enterprises indicating that they would recommend/consider recommending the policy if made available (this particular investigation was based on the assumption of a hybrid policy, which was preferred by micro and small enterprises when compared to medium enterprises). The survey results further outlined the desired premium schemes as follows: less than LKR 3000 (USD 15) for micro enterprises, LKR 3000-5000 (USD 15-25) for small enterprises and LKR 5000 - 7500 (USD 25-37.5) for medium enterprises. Finally, quick loss assessments, settlement record and premium levels were outlined as the key concerns when deciding whether to do business with an insurance company.

1.3.5 Potential Benefit for target group

The extrapolated total annual costs of flood damages for MSMEs in the three districts was estimated by a previous study¹⁰ as LKR 1.37bn (USD 9.10 million), with average annual cost per MSME of LKR 238,365 (USD 1,589). According to the current feasibility study analysis, the proposed insurance would potentially provide financial support to more than 16,000 MSMEs and more than 35,000 people (non-agriculture) who have a daily income below USD 15 in the three districts, to help them build the resilience of their businesses to recover from flood damage and return to operation faster. If the potential product could be commercialised

¹⁰ UNEP DTU Partnership, 2019.

to the entire country beyond the three districts in the study, the number of beneficiaries is extrapolated to be around 70,000 MSMEs with 156,000 population. The actual number of beneficiaries would be even larger if the agriculture sector was also included in the estimations.

1.3.6 Feasibility Evaluation

Insurance is the most relevant risk transfer mechanism for MSMEs in Sri Lanka, given the current political-economic situation in the country, where the government is unable to finance compensation payments to affected businesses. Although a hybrid insurance solution is indicated as more preferable, taking into consideration the low level of trust in traditional insurance among MSMEs, as well as the advantages of a parametric insurance solution involving a uniform pay-out to all policy holders, this option seems more realistic for two main reasons. First, the speed of the parametric payment allows affected MSMEs to be assisted much more quickly without requiring the intervention of a loss assessor. This is particularly important for businesses that are exposed to cash flow constraints and need to be able to quickly recover to their usual level of sales. Second, by avoiding the use of a loss assessor, parametric technology allows for a drastic reduction in claims management costs, which could be potentially reflected in a lower insurance premium. This will improve the livelihood conditions of poor and vulnerable households that are involved in MSMEs, enabling a quicker, more sustained disaster recovery, with lower impact on their personal finances.

1.4. Recommendations and way forward

This feasibility study puts forward three key sets of recommendations that will guide the further development of the concept note and proposal for an intervention to help build financial resilience to flood risk among MSMEs. The main themes of these three sets of recommendations are as follows:

- 1) There is a need for collaboration among key stakeholders in the provision of insurance products, particularly flood risk insurance, suitable for the MSME sector in the Sri Lankan insurance market.
- 2) Promotional and awareness building campaigns are crucial to ensure that all segments of MSMEs, especially the most vulnerable segments, are reached and that the level of knowledge of disaster risk insurance and trust towards insurance providers and their

products is improved to an extent that allows greater uptake of flood risk insurance among MSMEs.

- 3) While it is noted that higher penetration of existing insurance products can possibly be achieved through tackling the identified weaknesses of these products (i.e. trust, bureaucracy, understanding of insurance, etc.), the results of this study also show that risk transfer solutions for flood disasters, introducing parametric or hybrid insurance solutions, appear to be the most suitable for MSMEs in the Sri Lankan market. Therefore, these should be explored for development as some of the primary options for the surveyed population.

2. Characterising MSMEs in Sri Lanka

2.1. Classification of enterprises as micro, small and medium enterprises, including breakdowns on income levels or other information in order to assess/verify whether the ISF (target group) criteria can be fulfilled

2.1.1 Definition of MSME

Micro, Small and Medium sized Enterprises (MSME) are considered as the pillar of strength of a country, especially for developing countries like Sri Lanka. According to the Department of Census and Statistics (DCS) Economic Census 2013/14¹¹, the number of SME sector establishments amounts to 1.017 million accounting for 52% of the country's GDP. MSMEs have become the main source of income to an extensive portion of the population amounting to approximately 2.255 million people in the non- agricultural sector.

The definition for MSMEs vary from one country to another depending on the level of a country's development and standard of living. The number of employees, annual turnover, electricity consumption, total investment, etc. are key variables used globally to provide a definition for MSMEs. Number of persons engaged in a business is a proxy globally used to identify informal businesses, to define SMEs and to measure the output. However, in the Sri Lankan context, according to the National Policy Framework for SME Development of 2015¹², annual turnover and number of employees are used as the criteria to define MSMEs. Different thresholds were identified for each economic sector; manufacturing and services with different distributions in the turnover and employment number in each sector. National Policy Framework for SME Development of 2015 clearly indicates that the definition should be revisited once in every 3 years and make necessary amendments based on the country's economic development policies and measures. However, there have been no records on any revisions made to the policy framework released in 2015. Hence, the segregation of enterprises in Table 2.1 is thus far the valid and accepted definition of MSMEs in the context of Sri Lanka.

In defining MSMEs, whilst the annual turnover and employment count are considered important, the level of employment, however, is the superseding factor which is proven to be the most reliable and consistent measure when defining MSMEs in Sri Lanka. This

¹¹ <http://www.statistics.gov.lk/Economic/Non%20agri.pdf>

¹² http://www.sed.gov.lk/sedweb/en/wp-content/uploads/2017/03/SME-fram-work_eng.pdf

classification does not apply to subsidiaries of large holding companies and are not considered as MSMEs unless the variables (Turnover/Number of employees) of the whole group are within the abovementioned limits.

Table 2.1 Definition of MSMEs in Sri Lanka

Sector	Size	Annual Turnover	No. of Employees
Manufacturing	Micro	Less than Rs. Mn. 15	Less than 10
	Small	Rs. Mn. 16 – 250	11 – 50
	Medium	Rs. Mn. 251 – 750	51 – 300
Services	Micro	Less than Rs. Mn. 15	Less than 10
	Small	Rs. Mn. 16 – 250	11 – 50
	Medium	Rs. Mn. 251 – 750	51 – 200

1 USD = 201 LKR (Exchange rate as at 1st March 2022)

Source: National Policy Framework for Small Medium Enterprise (SME) Development

According to the Economic Census Statistic 13/14 report published by the Department of Census and Statistics, the contribution to the economy by the micro enterprises is insignificant in monetary terms, although the micro enterprises represent the majority of businesses in Sri Lanka with an establishment distribution of over 90% (see Table 2.2 below). The MSME contribution in the three main sectors is also substantial as depicted in the Table 2.3. However, the report further highlights the MSMEs' substantial contribution to the Sri Lankan economy in terms of turnover, value addition and employment.

2.1.2 Information on the Number of Establishments

Table 2.2 Establishments Across the MSME groups

Size	Quantity	Percentage
Micro	935,736	91.8%
Small	71,126	7.0%
Medium	10,405	1.0%
Large	2,414	0.2%
Total	1,019,681	100%

Source: Economic Census Statistic 13/14, Department of Census and Statistics

Table 2.3 Number of Establishments according to economic sector breakdown

Sector	Size	Percentage
Industry	Micro	25.3%
	Small	28.8%
	Medium	32%
	Large	31.6%
Trade	Micro	42%
	Small	31.3%
	Medium	19.6%
	Large	36.9%
Services	Micro	32.7%
	Small	39.9%
	Medium	48.4%
	Large	31.5%

Source: Economic Census Statistic 13/14, Department of Census and Statistics

2.1.3 Information on the count of Employment

The number of persons engaged in each sector is show in the Table 2.4. Majority of the employment is concentrated in the Micro level sector. Further Table 2.5 reflects percentage distribution of persons engaged in the three key economic sectors. It is interesting to note that total percentage of employment in micro, small and medium level businesses is greater than that of the large level businesses in each economic sector.

Table 2.4 Persons Engagement

Size	Persons Engaged	Percentage
Micro	1,338,675	44.6%
Small	529,751	17.6%
Medium	386,756	12.9%
Large	747,937	24.9%
Total	3,003,119	100%

Source: Economic Census Statistic 13/14, Department of Census and Statistics

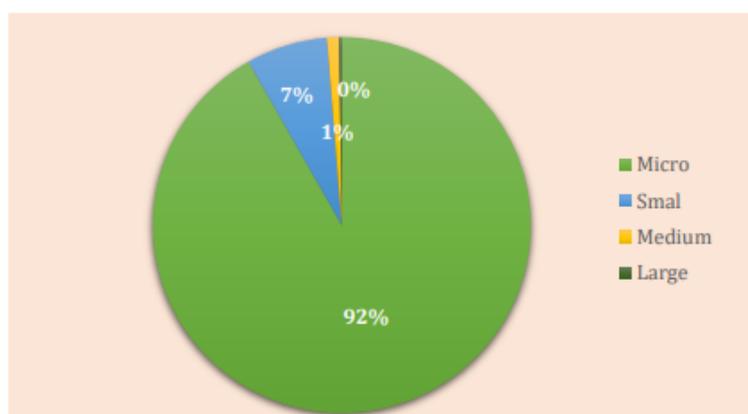
Table 2.5 Persons Engagement According to Economic Sector Breakdown

Sector	Size	Quantity
Industry	Micro	29.7%
	Small	14%
	Medium	16.7%
	Large	39.6%
Trade	Micro	68.1%
	Small	16.8%
	Medium	5.5%
	Large	9.5%
Services	Micro	44.6%
	Small	22.6%
	Medium	13.9%
	Large	18.9%

Source: Economic Census Statistic 13/14, Department of Census and Statistics

2.1.4 Establishments and Geographical Distribution of MSMEs in Sri Lanka

According to Figure 2.1, it is evident that MSMEs accounts to 99.8% of the total establishments in the country. Large scale establishments only accounts to 0.2% which is a very marginal figure compared to 92% recorded for Micro establishment segment.

Figure 2.1 Distribution of establishments

Source: Non-Agricultural Economic Activities in Sri Lanka, Department of Census and Statistics, 2013/14

Table 2.6 Distribution of MSMEs by geographic segments urban, rural and estate

Sector	Total		Urban		Rural		Estate	
	Number	Row %	Number	Row %	Number	Row %	Number	Row %
Total	1,019,681		250,828	24.6%	753,655	73.9%	15,198	1.5%
Micro	935,736		216,204	23.1%	705,074	75.3%	14,458	1.5%
Small	71,126		27,999	39.4%	42,683	60.0%	444	0.6%
Medium	10,405		5,164	49.6%	4,989	47.9%	252	2.4%
Large	2,414		1,461	60.5%	909	37.7%	44	1.8%

Source: Non-Agricultural Economic Activities in Sri Lanka, Department of Census and Statistics, 2013/14

As shown in the Table 2.6, it is apparent that the majority of MSMEs are condensed in the rural sector. Both Micro and Small enterprises are predominantly in rural areas while medium scaled enterprises were found in Urban areas. With respect to micro enterprises, approximately 80% of enterprises were located in five provinces, namely Western, Central, North-Western, Southern and Sabaragamuwa provinces. A broadly similar trend was noted for the small enterprise segment. In the case of the medium-scale segment there was a significantly greater geographical concentration with about 65% of enterprises located in the Western and North-Western provinces.

Table 2.7 Number of Establishments and Persons Engaged by Scale and District

District	Total	No. of ESTs				Total	Persons Engaged			
		Micro %	Small %	Medium %	Large %		Micro %	Small %	Medium %	Large %
Colombo	135,998	85.0	11.7	2.5	0.8	700,638	25.3	16.9	17.3	40.6
Gampaha	127,734	91.3	7.1	1.3	0.3	493,476	34.2	13.8	14.0	38.0
Kalutara	60,717	93.0	5.9	1.0	0.2	165,470	47.2	16.3	14.0	22.5
Kandy	62,062	90.6	8.1	1.1	0.2	168,057	49.3	22.2	14.0	14.5
Matale	25,784	92.1	7.2	0.6	0.1	61,192	54.7	22.0	8.7	14.7
NuwaraEliya	24,779	94.0	4.9	0.8	0.2	70,381	45.4	12.5	12.9	29.3
Galle	48,584	92.6	6.2	1.0	0.2	132,968	46.9	17.2	13.6	22.3
Matara	43,423	93.5	5.6	0.8	0.1	100,586	56.3	18.0	14.1	11.6
Hambantota	31,638	94.7	4.7	0.5	0.1	70,283	60.1	16.4	7.2	16.4
Jaffna	34,128	92.9	6.4	0.6	0.1	70,698	63.4	23.0	8.7	4.8
Mannar	4,481	95.2	4.5	0.3	0.0	8,277	73.8	17.4	4.0	4.8
Vavuniya	7,351	88.3	10.4	1.2	0.1	18,676	50.4	29.7	13.8	6.1
Mullaitivu	4,122	93.7	5.5	0.7	0.0	7,986	66.6	21.2	12.2	0.0
Kilinochchi	6,238	90.4	9.1	0.5	0.0	14,715	53.5	32.3	6.8	7.4
Batticaloa	29,135	94.9	4.7	0.4	0.0	53,732	68.5	20.6	5.9	5.0
Ampara	30,550	94.9	4.7	0.4	0.0	59,470	68.8	17.1	6.8	7.3
Trincomalee	16,565	94.6	4.9	0.3	0.1	31,726	67.4	18.3	4.2	10.1
Kurunegala	86,788	93.3	6.0	0.6	0.1	211,613	55.3	18.0	9.9	16.8
Puttalam	44,894	92.6	6.7	0.6	0.1	106,288	57.7	20.9	10.8	10.6
Amraadhapura	43,715	93.9	5.5	0.5	0.1	98,858	60.2	17.3	6.5	15.9
Polonnaruwa	21,030	93.9	5.5	0.5	0.1	47,820	58.6	17.8	7.6	15.9
Badulla	30,457	92.8	6.3	0.9	0.1	70,091	56.5	19.8	13.8	9.9
Moneragala	18,846	95.0	4.6	0.4	0.1	40,513	59.4	15.1	5.4	20.0
Ratnapura	45,210	91.2	7.8	0.8	0.1	120,250	47.2	23.0	12.8	17.0
Kegalle	35,452	93.8	5.5	0.6	0.1	79,355	58.1	18.1	11.1	12.7

Source: Non-Agricultural Economic Activities in Sri Lanka, Department of Census and Statistics, 2013/14

Colombo District records the highest number of establishments in the country in all segments apart from Micro level segment. In terms of micro level establishments, Gampaha districts records the highest which is 12.5% compared to 12.4% recorded in Colombo district.

According to the Department of Census and Statistics 13/14 data (see Table 2.7), there are 135,998, 127,734, 60,717 and 45,210 establishments recorded for Colombo, Gampaha, Kalutara and Rathnapura districts respectively. Distribution of establishments and persons engaged across each Divisional Secretariat (DS) is depicted in the Table 2.8 below.

Table 2.8 Distribution of Establishments and Persons Engaged across DS Division

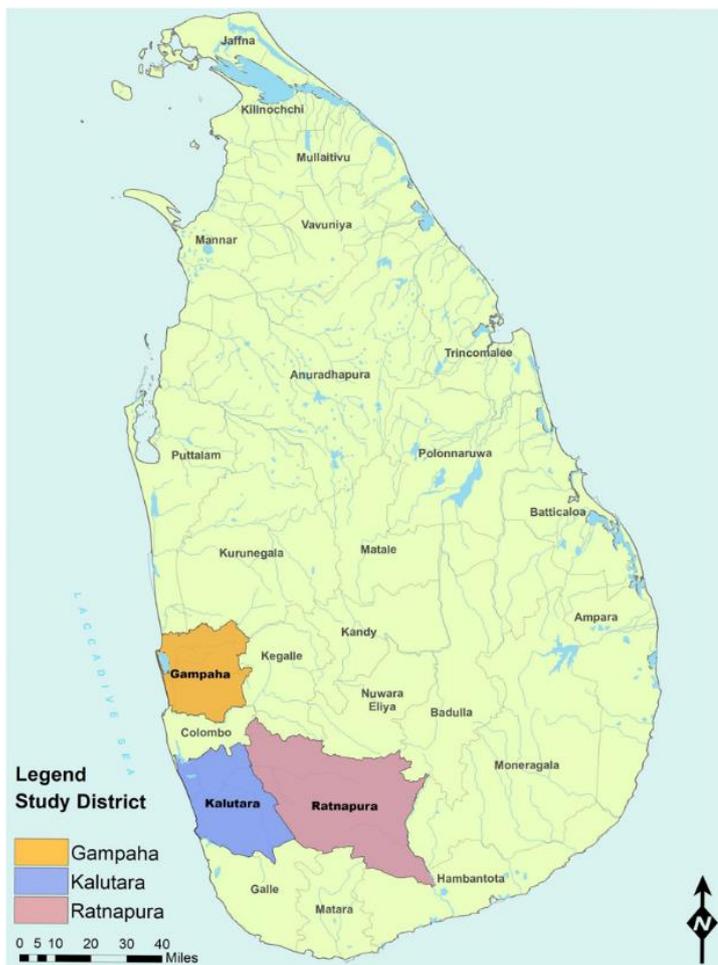
District/Divisional Secretariat	Establishments		Persons Engaged	
	No. of ESTs	Column %	No. of ESTs	Column %
Colombo	135,998	100.0%	700,638	100.0%
Colombo	28,586	21.0%	160,733	22.9%
Kolonnawa	7,518	5.5%	25,828	3.7%
Kaduwela	14,278	10.5%	53,061	7.6%
Homagama	12,527	9.2%	42,051	6.0%
Seethawaka	7,034	5.2%	43,361	6.2%
Padukka	3,024	2.2%	8,566	1.2%
Maharagama	10,786	7.9%	38,532	5.5%
Sri Jayawardanapura Kotte	5,569	4.1%	46,593	6.7%
Thimbirigasyaya	13,111	9.6%	142,579	20.3%
Dehiwala	3,626	2.7%	25,440	3.6%
Rathmalana	4,398	3.2%	28,897	4.1%
Moratuwa	13,307	9.8%	40,664	5.8%
Kesbewa	12,234	9.0%	44,333	6.3%
Gampaha	127,734	100.0%	493,476	100.0%
Negombo	8,763	6.9%	27,514	5.6%
Katana	14,005	11.0%	83,838	17.0%
Divulapitiya	10,533	8.2%	27,030	5.5%
Mirigama	7,572	5.9%	23,324	4.7%
Minuwangoda	9,873	7.7%	26,935	5.5%
Wattala	7,551	5.9%	38,173	7.7%
Ja-Ela	11,721	9.2%	42,710	8.7%
Gampaha	12,940	10.1%	34,337	7.0%
Attanagalla	10,492	8.2%	37,098	7.5%
Dompe	7,991	6.3%	24,556	5.0%
Mahara	9,861	7.7%	25,954	5.3%
Kelaniya	7,524	5.9%	37,468	7.6%
Biyagama	8,908	7.0%	64,539	13.1%
Kalutara	60,717	100.0%	165,470	100.0%
Panadum	8,180	13.5%	28,791	17.4%
Bandaragama	6,552	10.8%	16,350	9.9%
Horana	6,493	10.7%	19,770	11.9%
Ingiriya	2,709	4.5%	10,904	6.6%
Bulathsinhala	2,921	4.8%	6,581	4.0%
Madurawala	1,464	2.4%	3,279	2.0%
Millaniya	2,587	4.3%	5,580	3.4%
Kaluthara	9,184	15.1%	22,047	13.3%
Beruwala	7,947	13.1%	18,746	11.3%
Dodangoda	2,888	4.8%	8,318	5.0%
Mathugama	4,087	6.7%	9,603	5.8%
Agalawatta	1,971	3.2%	7,640	4.6%
Palindanuwara	1,711	2.8%	3,186	1.9%
Walallawita	2,023	3.3%	4,675	2.8%

District/Divisional Secretariat	Establishments		Persons Engaged	
	No. of ESTs	Column %	No. of ESTs	Column %
Ratnapura	45,210	100.0%	120,250	100.0%
Eheliyagoda	3,054	6.8%	8,364	7.0%
Kuruswita	4,107	9.1%	12,141	10.1%
Kiriella	1,539	3.4%	4,330	3.6%
Ratnapura	5,706	12.6%	14,797	12.3%
Imbulpe	2,443	5.4%	5,211	4.3%
Balangoda	3,929	8.7%	8,907	7.4%
Opanayaka	1,295	2.9%	2,909	2.4%
Pelmadulla	3,608	8.0%	14,201	11.8%
Elapatha	1,100	2.4%	3,161	2.6%
Ayagama	1,073	2.4%	2,059	1.7%
Kalawana	1,918	4.2%	4,770	4.0%
Nivithigala	2,115	4.7%	7,839	6.5%
Kahawaththa	1,848	4.1%	6,142	5.1%
Godakawela	2,901	6.4%	7,419	6.2%
Weligepola	1,241	2.7%	1,904	1.6%
Embelipitiya	5,795	12.8%	13,063	10.9%
Kolonna	1,538	3.4%	3,033	2.5%

Source: *Non-Agricultural Economic Activities in Sri Lanka, Department of Census and Statistics, 2013/14*

The location of the three selected study area are shown in Figure 2.2. At the end of this section, a few field pictures of MSMEs are provided as examples.

Figure 2.2 Sri Lanka map with the three selected provinces – Kalutara, Gampaha and Ratnapura



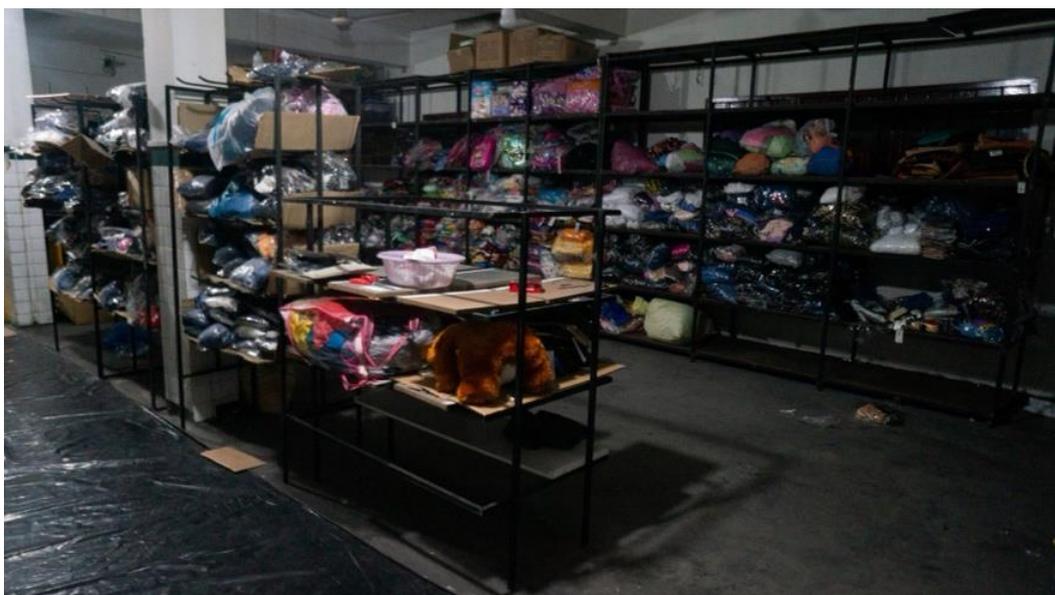
Source: *BBCR Baseline Report*

Medium-sized enterprise:



Image source: BBCR Baseline Report

Small-sized enterprise:



Micro-sized enterprise:



3. Legal, policy, and regulatory setup

3.1 The current laws and regulation appropriate for introducing a new insurance program to support MSMEs in relation to flood risk.

The Regulation of Insurance Industry Act, No. 43 of 2000 (RIIA) provides the relevant legal framework for the regulation and supervision of insurance companies, insurance brokering companies, insurance agents and loss adjusters. The RIIA has been amended by the amendment Acts, No's. 27 of 2007, 3 of 2011 and 23 of 2017.

IRCSL is vested with the authority to review new insurance policies with a view to ensuring that the interests of policyholders are adequately safeguarded. The Circular issued on 23rd March 2021 by the IRCSL (See Appendix 2), sets out the necessary requirements to be fulfilled prior to the launching of an insurance product by an insurance provider in the Sri Lankan insurance market. This Circular includes clear instructions to all insurance providers in Sri Lanka to file with the IRCSL (i) all policy forms to be issued by an insurer, prior to its issue; (ii) any amendments to be made to any policy forms already issued; and (iii) where required to do so by a notice in writing, copies of any policy forms already issued.

In order to ensure that the terms of a contract of insurance covered by a policy form are fair and equitable, the IRCSL may direct amendments to any policy form furnished to the IRCSL, and it shall be the duty of the insurer furnishing such forms to give effect to such amendments.

The IRCSL has decided that an insurance provider may launch products and issue policy forms only after the IRCSL confirms that the said products/policy forms are in the opinion of the IRCSL, fair and equitable.

All insurance companies have been required by IRCSL to keep the regulator informed of the proposed date of launch of insurance products and all general insurance companies are required to submit documents in relation to its insurance products (policy documents, proposal forms, advertising materials, etc.) at least 30 days prior to the proposed date of launch.

3.2 Identification of gaps, if any, regarding legal and regulatory setup for the establishment of an insurance program for MSMEs.

There are no specific regulations issued by IRCSL, which are dedicated to insurance schemes for MSME's. Moreover, the RIIA does not use the expression “microinsurance” or “microenterprise”.

However, as explained in Section 3.1, insurance providers in the Sri Lankan insurance market should fulfil the requirements set out in the circular dated 23 March 2021 and fulfil the general instructions for compliance given by IRCSL.

In addition, guidelines such as the “Principles on fair treatment of customers” issued by the IRCSL for all insurers regarding customer care and treatment, highlights the product development, awareness, and suitability of advice which relate to the roll out of new insurance products in the market. Insurers need to pay close attention to the needs of customers and ensure that there is clear communication about the details of new product/s in the market. The Principles also cover claims management and complaints handling.

Principle 02 - Products are developed and marketed in a way that pays due regard to the interests of customers

Development and marketing of products by the companies shall be based on a proper study of the likely needs and financial capability of targeted group of customers. The products and marketing material shall be designed to meet the needs of identified customer groups and targeted accordingly.

Principle 03 - Customers are provided with clear information before, during and after the point of sale

Companies shall provide clear information and keep the customers appropriately informed of all material facts pertaining to the contract of insurance, before the contract is entered into through to the point at which all obligations under a contract have been satisfied. Importantly, customers shall be given the appropriate information, in good time and in a comprehensible form, before the sale, so that they can make an informed decision on the product being proposed. This involves communicating clearly and fairly the nature of the product before the customer is ‘locked-in’.

Principle 04 - Suitability of advice

Where customers receive advice before concluding an insurance contract, companies shall ensure that such advice is appropriate based on the customer's disclosed circumstances? This would involve obtaining information from customers to assess their insurance needs, before giving advice, and providing continuous training to persons giving advice. In case of complex products, the basis on which a recommendation is made may need to be explained and documented.

Principle 05 - Managing reasonable expectations of customers:

Companies shall ensure that the customers are provided with products that perform as companies have led them to expect, and the associated services are of an acceptable standard, as they have been led to expect. Honouring the representations, assurances and promises (made by companies prior to sale and thereafter) that lead to legitimate customer expectation, will improve public confidence on insurance and make customers confident that they are dealing with companies that they can trust.

Principle 06 - Fair handling of claims:

Companies shall have written policies and processes in place to handle claims in a timely and fair manner. Informing the claimants of the claim settlement procedure and standard timeframes for settlement, when a claim is made, would help in managing customer expectations and minimizing disputes. Claim determinative factors (such as: violation of conditions, breach of a warranty, application of excess and average clause) shall be illustrated and explained in comprehensible language, when a claim is denied in whole or in part, to ensure that claimants understand the basis of a company's decision.

Principle 07 - Analysis of customer feedback and fair handling of complaints:

Customer feedback and contents of customer complaints provide valuable information for companies to identify whether their customers are treated fairly and where improvements are needed. Due consideration shall be given to the views and opinions of dissatisfied customers with a view to further improve systems and processes in order to manage customer expectations. It is important to analyse trends and to identify common underlying causes of complaints, in order for the companies to take actions to eliminate the root causes.

In view of the foregoing, it could be concluded that, in the absence of specific regulations governing microinsurance or insurance products targeted at MSMEs, it would be possible for an insurance provider to launch a new flood risk product, subject to the aforementioned formalities set out in the IRCSL circular. Under Section 37 of the Regulation of Insurance Industry Act, IRCSL can require insurers to furnish copies of policy forms. The Circular dated 23 March 2021, issued by IRCSL, refers to the above section, and requires General Insurance Companies to submit documents (policy, proposal, advertising material) at least 30 days prior to the proposed date of launching any new product. There are no specific regulations in respect of index-based products. When an insurance provider submits the details of the policy as aforesaid, then IRCSL may respond if they have any queries.

4. Supply side investigation: Disaster risk management and insurance landscape

4.1 Synergies with other adaptation and disaster risk reduction projects

At the global level, there has been a growing recognition of the need to protect and engage private sector assets as part of overall resilience building efforts across societies as reflected in the priorities, goals, and targets of relevant frameworks and policies such as the Sendai Framework for Disaster Risk Reduction 2015 – 2030 (UNDRR, 2019), the Sustainable Development Goals (SDGs) (UNDP, 2021) as part of the 2030 Agenda for Sustainable Development¹³ and the Paris Climate Change Agreement.¹⁴ There have been various ways identified through which the private sector can be involved in disaster risk reduction (DRR) measures. These include direct assistance to communities; disaster preparedness for their own business; development of innovative DRR products; joint projects with other stakeholders in disaster risk reduction; and establishment of private foundations, NGOs, and trusts dedicated to tackling DRR related issues¹⁵

In Sri Lanka, the need to protect and mobilize businesses to enhance their resilience to disasters has been underlined first-hand by the impacts of disruptive events on enterprises themselves as well as the communities and the society in which they are situated.¹⁶ Disasters triggered by climatic events are becoming increasingly commonplace in Sri Lanka, a trend which is expected to continue in the coming years.¹⁷ The impact of such disasters ranges from loss of lives to destruction of livelihoods, with MSMEs as one of the sectors most severely affected by these disruptive events.¹⁸

The impact to Sri Lanka's MSME sector by climate-driven disasters poses a significant threat not only to local employment but to the overall economic growth and stability of the country, which has been acknowledged by agencies engaged in activities for disaster and climate mitigation and adaptation.¹⁹ Overall, initiatives to engage the private sector and dedicated programs to enhance the resilience of individual businesses in disaster management are still a

¹³ Bello, Bustamante and Pizarro, 2021

¹⁴ International Finance Corporation, 2016

¹⁵ Chatterjee and Shaw, 2015

¹⁶ Disaster Management Center Sri Lanka, 2018

¹⁷ World Bank, 2022

¹⁸ UNDP, 2013

¹⁹ ILO, 2020

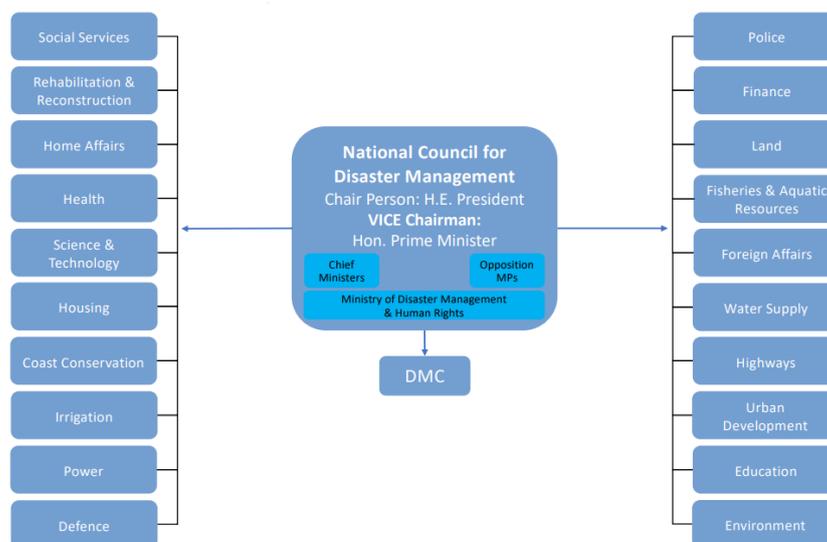
relatively new area within the field of disaster management having been pioneered since the inception of the Sendai Framework for Disaster Risk Reduction in 2015. Sri Lanka's Ministry of Disaster Management's Comprehensive Disaster Management Programme 2014-2018 noted a need to improve "private sector disaster resilience in hazard prone areas in order to avoid disruptions to operations and to minimize losses due to impacts of disasters".²⁰ The plan identified the need to "build the capacity and provide [an] enabling environment for business contingency planning, including risk transfer systems" through awareness raising and knowledge building programs and by strengthening the country's capacity in areas such as pool funding, emergency fund access mechanisms, reinsurance etc. During the period of the Comprehensive Disaster Management Programme, the Ministry of Disaster Management demonstrated the government fulfilling commitments to engage a wider range of stakeholders, including businesses, in disaster management. This included public-private partnerships between the government and private telecommunications companies for early warning systems²¹, relief and rehabilitation schemes²² as well as a partnering with private financial institutes to launch a pilot project on index-based weather insurance products to farmers²³. The mandated government agencies lead disaster management efforts in Sri Lanka, Disaster Management Centre (DMC) is the focal organization for disaster management in the country. DMC was established as the execution agency of the National Council for Disaster Management (NCDM) under the provisions of Sri Lanka Disaster Management Act No. 13 of 2005. DMC holds the authority for implementing and coordination of national and sub-national level plans to minimize possible risk of disasters and manage post disaster activities liaising with other relevant stakeholders (see Figure 4.1 below). Disaster Management Committees are established across the country at District, Divisional and Grama Niladhari divisions in order to facilitate coordination and implementation of overall DMC plans and initiatives.

²⁰ Ministry of Disaster Management, 2014

²¹ Hettiarachchi and Weeresinghe (2014)

²² Disaster Management Centre Sri Lanka (2018)

²³ IFC (2012)

Figure 4.1: Governmental organizational Structure for Disaster Management in Sri Lanka

Source: Centre for Excellence in Disaster Management & Humanitarian Assistance (2021)

Other line agencies of the NCDM, including the Department of Meteorology and the Department of Irrigation play an important coordination role for overall disaster management together with the DMC. The Department of Meteorology provides services pertaining to Meteorology, Aeronautical Meteorology, Ocean Meteorology, Hydro Meteorology, Agricultural Meteorology, Climatology and Astronomy to government agencies, private sector and the general public. The Department of Irrigation is engaged in development of land and water for irrigated agriculture, hydro power, domestic and industrial usage and aquaculture. The Department also plays a key role in flood control and protection, providing Real Time Water Level information and a GIS dashboard of river gauging stations.

Various legislation and policies published by the Government of Sri Lanka acknowledges the role of other stakeholders, including the private sector in disaster management.²⁴ They include aspects on how private business can provide financial and technical expertise as well as a recognition of the damage and losses which businesses, especially micro, small and medium enterprises can incur when impacted by disasters.

Numerous post-disaster needs assessments conducted by development partners together with the Government of Sri Lanka following disaster events have demonstrated that the effects on the private sector were significant in comparison to those incurred by the public sector and that

²⁴ UNDRR (2019)

MSMEs often bear the brunt of such losses.²⁵ In this backdrop, there have been numerous adaptation and mitigation initiatives and projects initiated at the global, regional, and national levels by development partners, United Nations (UN) agencies, and other stakeholders that typically partner with, or directly support, concerned agencies or ministries of the Government of Sri Lanka as well as private sector networks and business enterprises themselves to enhance the resilience of MSMEs in the country (Figure 4.2).

Figure 4.2: Selected adaptation and disaster risk reduction projects/initiatives focused on private sector and enterprises in Sri Lanka

Project Name	Duration	Implementing Agency	Project Description
Comprehensive Disaster Management Programme 2014-2018	2014-2018	Ministry of Disaster Management, Sri Lanka	The overarching objective is creating and facilitating an enabling environment for multi-hazard, participatory and partnership-oriented disaster management (DM) programmes which use risk knowledge as the base, in line with global conventions and frameworks.
JOBS for PEACE and RESILIENCE: Strengthening natural disaster resilience of rural communities and micro and small enterprises in the North and South West of Sri Lanka	1 January 2018 - 31 March 2020	ILO with financial support from the Government of Japan	Support the improvement of livelihoods by strengthening disaster resilience in flood / landslide -affected communities in selected districts in the Southwest and drought affected communities in Northern Provinces.
Asian Preparedness Partnership (APP)	August 2017 – ongoing	ADPC with support from the Bill & Melinda Gates Foundation	APP is a multi-stakeholder regional partnership, it includes countries from South and Southeast Asia to better prepare for, respond to, and recover from disasters.
Connecting Business Initiative (CBi)	May 2016 - ongoing	UNDP and OCHA	The Connecting Business initiative (CBi) engages the private sector strategically before, during and after emergencies, increasing the scale and effectiveness of the response and recovery in a coordinated manner.
Building Businesses' Climate Resilience (BBCR)	October 2018 - December 2020	UNEP CCC, ADPC, CCC and MPEnsystems through funding from the Nordic Climate Facility	The project aimed at developing a disaster risk management (DRM) product that will allow SMEs in Sri Lanka to reduce their recurring losses from climate related disasters (primarily flooding).
Climate Resilient Integrated Water Management Project (CRIWMP)	2017-ongoing	UNDP, Meteorological Department, Ministry of Irrigation, funded by the Green Climate Fund (GCF).	The objective of the project is to strengthen the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management. This will be achieved through three outputs that build upon previous experience and best practice:

²⁵ Ministry of Disaster Management et al, 2017; ILO, 2018a

These include efforts to raise awareness for private sector organizations to engage in disaster and climate resilience initiatives; the formal inclusion of businesses as part of dedicated networks and platforms for disaster management and multi-stakeholder emergency preparedness; capacity development among businesses on specific tools such as Business Continuity Management to enhance preparedness to disruptive events; and the promotion of risk transfer and insurance products for businesses that have already been pioneered in Sri Lanka. This section of the feasibility study provides an overview of these recent and ongoing initiatives that may offer the potential for linkages and collaboration with such a project focused on providing disaster risk management and insurance solutions for MSMEs in Sri Lanka.

Various adaptation and mitigation projects related to enhancing the disaster and climate resilience of businesses have been implemented by UN agencies in Sri Lanka, including those with a specific focus on MSMEs. Between 2018 and 2020, the International Labour Organization (ILO) with financial support from the Government of Japan implemented a program to assist in strengthening climate change resilience and disaster recovery within Sri Lanka's MSME sector in selected districts by capacitating government staff on engaging small enterprises on disaster preparedness in flood affected districts through technical support for business continuity planning and improved access to finance and insurance, although specific data or documentation on the project outcomes in view of insurance for natural catastrophes was not available at the time of writing.²⁶

In addition, the United Nations Environment Programme (UNEP) through its UNEP Copenhagen Climate Centre (formerly UNEP DTU Partnership), together with other international and Sri Lanka-based partners, in 2018-2021 implemented a project aimed at developing disaster risk management (DRM) products to assist small and medium-size enterprises (SMEs) in Sri Lanka to reduce their recurring losses from climate related disasters (primarily flooding).²⁷ The initiative designed a mobile APP towards MSMEs with feature functions of self-risk assessment, customised risk management recommendations and links and access to various available resources regarding loans, insurances, and adaptation measures. The APP is free of charge and open for all MSMEs, The initiative also revealed that enterprises in Sri Lanka are willing to utilize structural and non-structural measures in enhancing their preparedness for disasters. It noted that although insurance is an important

²⁶ ILO, 2018b

²⁷ UNEP DTU Partnership, 2019

tool for protection of SMEs from climate risks, and demand for such measures is rather high in flood prone areas, there are challenges for both insurance on the supply and demand sides. Insurance companies were reluctant to develop products in such areas due to potential high development costs, while although SMEs showed interests in considering such insurance products, they were also discouraged from taking these up due to assumed prohibitive premiums. Therefore more comprehensive examination to better understand the technical and business concerns for insurance providers offering such insurance packages and the motivations, enabling factors or barriers for small enterprises taking up these packages was still required.

Notably, while such initiatives typically target specific districts and sectors and have aimed to address particular hazards, more broadly they have served to engage and sensitize key government agencies working at the intersection between disaster and climate resilience and SME development and support. These key government agencies include the Disaster Management Centre (DMC), the Department of Meteorology, the Department of Irrigation, the Ministry of Industry and Commerce, and the SME Development Unit of the Ministry of National Policy and Planning. In turn they can inform the Government of Sri Lanka's national climate adaptation and disaster management strategies by strengthening policies that can build the resilience of businesses to climate change. These concerned government agencies have made efforts to ensure that early warning and forecasting information is available to the public via a web portal and mobile application under the Climate Resilient Integrated Water Management Project (CRIWMP) implemented together with UNDP, funded by the Green Climate Fund (GCF)²⁸. The platform allows at-risk communities and farmers to access location-specific, reliable, timely and user-friendly climatic and weather information, although this is not tailored or targeted specifically to the needs and sensitivities of business enterprises (e.g. to help make decisions that balance risk reduction against the business interruption that could result from taking mitigating action).

At the same time, there are global and regional platforms and networks related to engaging the private sector in disaster management that have active members or have established country chapters or representation in Sri Lanka. Whilst these platforms do not engage with MSMEs directly, their focus of engaging relevant and motivated private sector stakeholders means that they offer avenues or opportunities to integrate or align with emerging efforts for building MSME disaster resilience in the country by raising the awareness of development partners,

²⁸ UNDP (2022).

policymakers and government agencies on the need to include businesses of different scales as part of their programming and initiatives and promoting knowledge exchange between relevant stakeholders in Sri Lanka and other countries. Examples of such networks include The Connecting Business initiative (CBI), a joint initiative by the United Nations Development Programme (UNDP) and the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), for which the Asia-Pacific Alliance for Disaster Management Sri Lanka (A-PAD SL) is the network member in the country.²⁹ Another similar UN-coordinated private sector network, ARISE, coordinated by the United Nations Office for Disaster Risk Reduction (UNDRR) does not maintain a Sri Lanka country specific network but has documented the impacts and lessons learned from MSMEs in the country.³⁰

The United Nations Development Programme (UNDP) has highlighted the important role that the impact of disasters on MSMEs has on the economic and social recovery of affected communities and livelihoods. From this livelihood-driven perspective, the agency has been a proponent for supporting MSMEs to tackle the socio-economic drivers of risk in the pre-disaster stage and providing enterprises with access to a broader set of coping strategies (e.g. disaster recovery funds, insurance and business continuity or recovering planning) so that they can play an active role in post disaster economic and social recovery.³¹ MSMEs are also one of the priority groups being supported by UNDP in the context of the COVID-19 crisis for its “Beyond Recovery, Towards 2030” initiative that focuses on four main areas: governance and agency; social protection; green economy; and digital disruption. Measures and support range from technical and logistical assistance on crisis response and management to supporting vulnerable populations to cope with the socio-economic impact of the pandemic.³²

Aside from these UN-led initiatives, examples of other partnerships from organizations active in the region include the Asian Preparedness Partnership (APP) facilitated by the Asian Disaster Preparedness Center (ADPC).³³ The multi-sectoral partnership model engages local non-governmental organizations (LNGOs), government agencies, and the private sector in its member countries. In Sri Lanka, the Ceylon Chamber of Commerce (CCC) is an active member

²⁹ Connecting Business Initiative, 2022

³⁰ UNDRR ARISE, 2022; UNDRR, 2020

³¹ UNDP, 2013

³² UNDP Sri Lanka, 2020

³³ ADPC, 2021

of the regional Asian Preparedness Partnership platform and its national chapter—the Sri Lanka Preparedness Partnership (SLPP).

Private sector associations, including CCC, together with responsible government agencies for disaster management in Sri Lanka have advocated for business continuity planning as a means for commercial enterprises, including MSMEs, to build their resilience to external shocks, including natural hazard-induced disasters.³⁴ Capacity development and awareness raising on business continuity has been provided to institutions in Sri Lanka through technical support provided by various development organizations. These include some of the aforementioned initiatives implemented by ILO and ADPC respectively, which have highlighted the need to contextualize and cascade tools, knowledge and guidelines for managing business disruptions to MSMEs.³⁵ Insurance-based products and risk transfer mechanisms are typically included among the measures that can be adopted by enterprises as part of their overall business continuity strategies. However, currently these initiatives have only target limited numbers of MSMEs in targeted locations or sectors within the scope of the project activities.

Aside from development organizations coordinating awareness raising efforts to mobilize private sector partners and providing technical assistance to MSMEs, other international financial institutions and regional development banks have also undertaken assessments and studies with recommendations for enhancing access to disaster risk financing options, including insurance, among MSMEs in Sri Lanka.

In 2015, a Switch-Asia Network Facility report explored broad SME access to finance for sustainable consumption and production in Asia, including Sri Lanka. It was noted that a greater variety of products for SMEs including loans, leasing, micro-finance, and education markets were being made available through public institutions such as the Housing Development Finance Corporation. However, such loans to SMEs and other economic sectors have yet to include environment-related issues such as green financing, efficiency or disaster resiliency with public and private banks wary of exposing themselves to risks in new products and markets which are regarded as requiring specific expertise required for project monitoring and documentation.³⁶

³⁴ Fernando et al., 2021

³⁵ ILO, 2019; ADPC, 2019

³⁶ Association of Development Financing Institutions in Asia and the Pacific, 2015

In view of the financial or instruments or tools that are available to enterprises from a disaster management perspective a study conducted by the Ministry of Disaster Management and the Ministry of National Policies and Economic Affairs, Sri Lanka found that many SMEs are in flood-prone areas. It was recommended to establish zoning and enforce the existing laws³⁷. Moreover, it was noted that insurance penetration among enterprises was low, especially in the informal sector. As of 2016, there were at least 18 insurance companies operating in Sri Lanka that offer non-life related insurance products with subclasses that include fire. Coverage of natural catastrophe is issued “as an extension or endorsement of existing fire and allied perils policies by most insurers”³⁸. In times of disasters, banks try to ease the financial condition of SMEs by restructuring their loans and extending moratoriums on loan principal repayments. There are also programs that offer lower borrowing rates for SMEs. It was further recommended to cover assets in flood-prone areas against future disasters³⁹. Section 4.2 of this feasibility study provides a more detailed examination of which financial instruments have been made accessible to enterprises in Sri Lanka.

An assessment of the institutional and regulatory framework relating to the SME sector in Sri Lanka was jointly carried out by the Ministry of Industry and Commerce and Gesellschaft für Internationale Zusammenarbeit (GIZ) in 2020. The study highlighted the increasing severity of natural disasters on industrial performance, in particular SMEs, as a notable barrier for the sector.⁴⁰ Particular constraints faced by SMEs included challenges related to access to finance in view of specific products due to lack of eligibility for obtaining loan or credit facilities. Market facilitation and the wider enabling environment was also cited as a challenge whereby Sri Lanka lacks a centralized, well-coordinated focal organization dedicated for providing general SME financing. Among the recommendations for an enhanced institutional framework proposed by the study was for a dedicated ‘SME authority’ that might be able to establish disaster recovery mechanisms for SMEs, including institutionalization of efficient disaster recovery mechanisms to support businesses affected by natural disasters to ensure fast recovery and business continuity.

³⁷ European Union (2016)

³⁸ ADB (2020)

³⁹ European Union (2016)

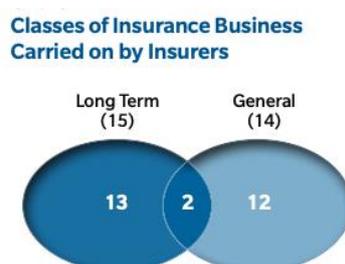
⁴⁰ GIZ, 2020

Whilst on one hand, the initiatives and programs described throughout this section of the report suggest a conducive environment with adequate awareness among relevant stakeholders in Sri Lanka on the value of disaster risk management efforts that engage with the private sector, these initiatives need to be leveraged and adapted as part of efforts specifically for the protection and support of MSMEs. At the same time, the findings and recommendations arising from assessments and investigations have identified particular gaps that need to be overcome in order to address challenges in view of provision of coherent and accessible affordable insurance packages for MSMEs. Many of the recent or ongoing climate change adaptation and mitigation projects in Sri Lanka offer a promising avenue for synergy with initiatives aimed at promoting and formulating financial support to facilitate disaster risk management measures for MSMEs in Sri Lanka, including insurance products that cover damages from climate change related disasters.

4.2 Overview of the Insurance Industry

As of 30th September 2020, twenty-seven (27) insurers were registered with the Insurance Regulatory Commission of Sri Lanka (IRC SL). Two (02) of them were composite companies transacting both long term insurance and general insurance business, whilst thirteen (13) of them engaged in long term insurance business and twelve (12) companies engaged only in general insurance business⁴¹. See Figure 4.3 for graphical depiction of the division of classes of insurance business carried on by insurance companies in Sri Lanka and Appendix 1 for details of insurance companies and insurance business.

Figure 4.3: Classes of insurance business carried on by insurance providers in Sri Lanka



Source: IRC SL Annual Report 2019

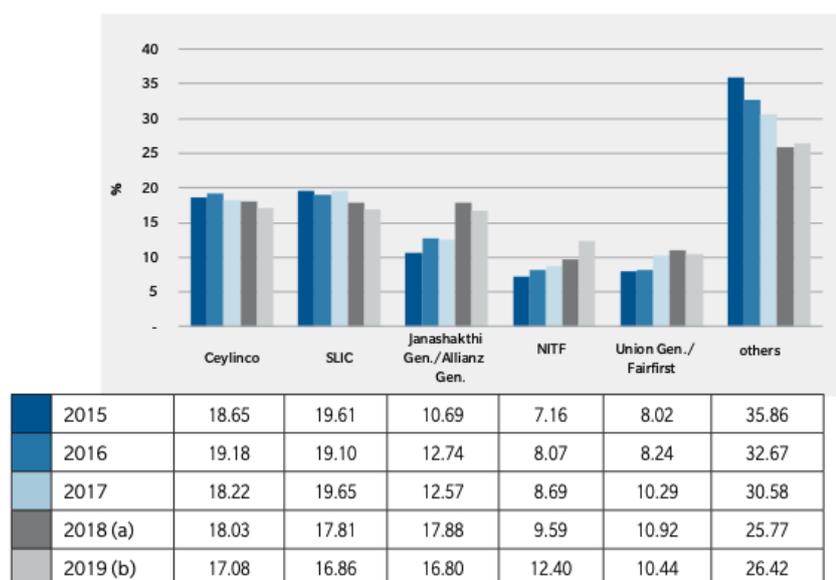
As depicted in Figure 4.4 the general insurance sector is dominated by five companies contributing to 73.58% of the market share, whilst the remaining companies increased their

⁴¹ IRC SL Annual Report 2019

market share to 26.42% from 25.77% recorded in the previous year, demonstrating healthy competition in the general insurance sector⁴².

Figure 4.4: ILO

Market Share of Top Five Contributors to GWP and Other Insurers for the Years 2015 to 2019 - General Insurance Business



Source: IRCSL Annual Report 2019

The 2019 Easter Sunday terrorist attacks in Sri Lanka, had an immediate negative impact on the country's tourism sector and general economic outlook, which in turn affected many service sectors, including the insurance sector. As the economy started to slowly revive along with rising tourist arrivals and improved business confidence, the outbreak of the COVID-19 pandemic in 2020 provoked further uncertainties regarding the economic performance of the country⁴³.

This resulted in GDP growth of only 2.3% in 2019 which is the lowest GDP growth rate recorded since 2011. This impacted the growth of the insurance industry as well, recording the lowest growth rate since 2015 of 8.64%.

Table 4.1 and Figure 4.5 depict the GWP generated by insurance companies and their market share of general insurance business from 2015 to 2019.

⁴² ibid

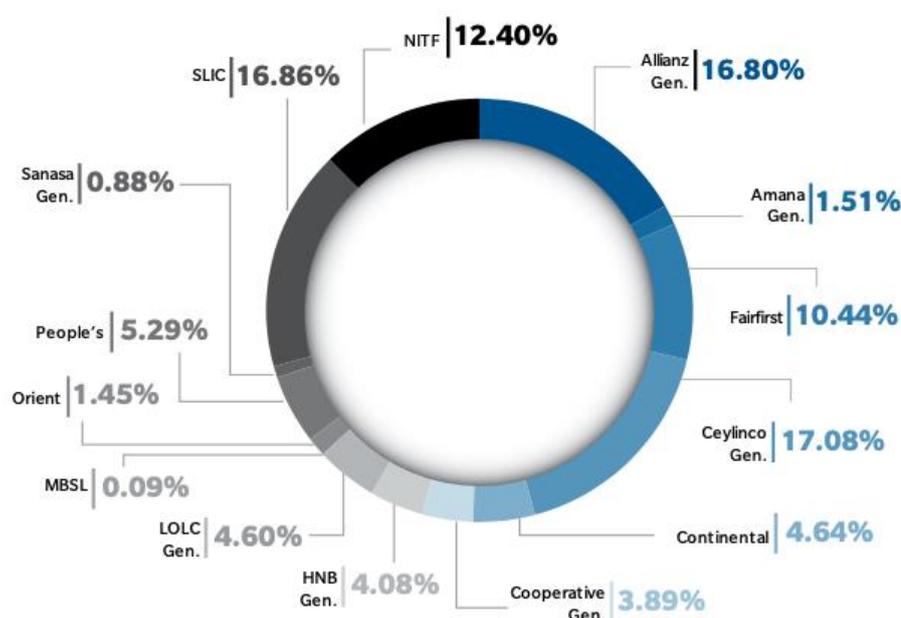
⁴³ Central Bank of Sri Lanka, 2020.

Table 4.1: GWP and market share of general insurance companies

Insurer	2015		2016		2017		2018 (a)		2019 (b)	
	GWP (LKR '000)	Market Share (%)	GWP (LKR '000)	Market Share (%)	GWP (LKR '000)	Market Share (%)	GWP (LKR '000)	Market Share (%)	GWP (LKR '000)	Market Share (%)
AIA Gen.	3,297,840	4.76	-	-	-	-	-	-	-	-
AIG	3,141	0.00	-	-	-	-	-	-	-	-
Allianz Gen.	3,244,844	4.68	4,247,691	5.34	5,956,142	6.38	17,983,748	17.88	18,095,258	16.80
Amana Gen.	1,438,732	2.08	1,474,186	1.85	1,686,270	1.81	1,841,067	1.83	1,621,461	1.51
Ceylinco Gen.	12,921,561	18.65	15,265,433	19.18	17,012,087	18.22	18,137,933	18.03	18,401,405	17.08
Continental	2,309,413	3.33	3,088,064	3.88	3,892,780	4.17	4,545,405	4.52	5,002,548	4.64
Cooperative Gen.	1,691,705	2.44	2,420,130	3.04	2,966,679	3.18	3,692,397	3.67	4,192,960	3.89
Fairfirst	1,908,901	2.76	2,361,614	2.97	9,610,990	10.29	10,980,850	10.92	11,247,669	10.44
HNB Gen.	2,577,224	3.72	2,982,385	3.75	3,662,008	3.92	4,062,171	4.04	4,394,457	4.08
Janashakthi Gen.	7,406,160	10.69	10,137,864	12.74	11,740,185	12.57	-	-	-	-
LOLC Gen.	2,476,961	3.58	3,096,834	3.89	3,795,106	4.06	4,318,721	4.29	4,954,896	4.60
MBSL	1,159,208	1.67	972,976	1.22	260,806	0.28	(512)	0.00	96,217	0.09
NITF	4,961,413	7.16	6,420,822	8.07	8,114,412	8.69	9,644,901	9.59	13,358,203	12.40
Orient	746,935	1.08	810,728	1.02	1,179,000	1.26	1,376,398	1.37	1,564,902	1.45
People's	3,637,404	5.25	4,166,727	5.24	4,587,432	4.91	5,354,368	5.32	5,694,164	5.29
Sanasa Gen.	349,527	0.50	384,481	0.48	569,509	0.61	732,379	0.73	945,162	0.88
SLIC	13,583,222	19.61	15,198,381	19.10	18,355,361	19.65	17,916,274	17.81	18,163,072	16.86
Union Gen.	5,557,189	8.02	6,561,571	8.23	-	-	-	-	-	-
Total	69,271,380	100	79,589,888	100	93,388,766	100	100,586,101	100	107,732,375	100
Growth Rate (%)	13.18		14.90		17.34		7.71		7.10	

Source: IRCSL Annual Report 2019

Figure 4.5: Company-wise market share of GWP as at 31/12/2019



Source: IRCSL Annual Report 2019

The GWP of general insurance business amounted to Rs. 32,197 million (Q1, 2021: Rs. 30,037 million) recording a growth of 7.19%. The assets of general insurance business amounted to

Rs. 244,900 million (Q1, 2021: Rs. 234,341 million) depicting a growth rate of 4.49% at the end of the 1st quarter of 2022⁴⁴.

Although the insurance penetration levels of the country are relatively low compared to other countries in the region, the general insurance business penetration increased marginally from 0.70% to 0.72% in 2019.

The number of policies issued in the general insurance sector has increased by 3.64% to 6,728,073 policies in 2019 compared to year 2018. There has been a gradual increase since 2015.

4.3 Overview of existing insurance schemes

A 2016 World Bank Group study exploring Disaster Risk Financing Options in Sri Lanka recommended that a comprehensive strategy to secure access to post-disaster financing before an event strikes could help ensuring rapid, cost-effective liquidity to finance recovery efforts for at risk groups including SMEs, farmers, and the poorest⁴⁵ (World Bank, 2016). Likewise, The World Bank's Global Facility for Disaster Reduction and Recovery (GFDRR) Post-Disaster Recovery Plan published in 2017 after floods and landslides that impacted Sri Lanka underlined a recommendation for Sri Lanka to establish a low-premium insurance scheme suitable for MSMEs. Under such a scheme, MSMEs would be encouraged to consider their own risks and are encouraged to apply of risk mitigation measures (Ministry of National Policies and Economic Affairs and Ministry of Disaster Management, 2017). It was noted that National Natural Disaster Insurance Scheme (NNDIS) operated by National Insurance Trust Fund (NITF) during 2016 – 2020 covered damages to building and contents owned by MSMEs but did not work as a risk reduction management tool being employed by the enterprises themselves, as the Government paid the insurance and could not provide coverage to MSMEs affected by all types of disasters. The NNDIS provided country-wide disaster risk insurance to all un-insured micro and small enterprises with a turnover of less than LKR 10 million. The cover was on an indemnity basis against damage to building and contents from floods. The NNDIS provided coverage up to a limit of LKR 2.5 million per micro or small enterprise. However, it is learnt that NITF has paid no individual claim over LKR 1 million. In addition, NITF has imposed informal sub-limits on contents coverage to LKR 100,000 per micro/small enterprise with the approval of government authorities. There was no enrolment process for the NNDIS and therefore, the number of micro and small enterprises that were covered nor their

⁴⁴ IRCSL Press Release, Q1 2022, published on 27 June 2022

⁴⁵ World Bank, 2016

locations or physical and social characteristics, are unclear. This makes exposure analysis and risk analysis (to estimate potential frequency and severity of losses) challenging. Therefore, it has been difficult to technically price the premium needed by NITF from the government. It is possible that many micro and small enterprises were not aware of the coverage provided by the NNDIS and therefore have not submitted any claims to NITF following a flood event.

An Asian Development Bank (ADB) assessment report detailing the Enabling Environment for Disaster Risk Financing in Sri Lanka highlighted the National Natural Disaster Insurance Scheme (NNDIS) as a measure having been provided by the government for citizens, including enterprises, since April 2016. It covered disasters triggered by natural hazards such as tropical cyclones, storms, floods, landslides, and earthquakes but excluding droughts and man-made disasters.⁴⁶

Currently, Sri Lanka does not have insurance policies which cover only floods or other natural perils on standalone basis. The usual practice of insurance providers is to include natural perils such as earthquake, volcanic eruptions, landslide, tornado, cyclone, storm, and tempest as an “exclusion” in a fire policy. However, perils such as cyclones and flood could be added to a fire policy as an “Additional Peril”. Illustrated below is an example of a standard⁴⁷ “Additional Perils” endorsement to a Fire Policy for commercial buildings which extend the cover to (a) cyclone/storm and tempest and (b) flood:

(a) *CYCLONE/STORM & TEMPEST*

Notwithstanding anything contained to the contrary in printed Condition 6 (b) of this policy, it is hereby declared and agreed that in consideration of the payment of an additional premium the insurance under the within written policy is extended to cover loss or damage directly caused by cyclone, storm and tempest, provided always that all the conditions of the policy shall apply (except insofar as they may be expressly so varied) and that any reference herein to loss or damage by fire shall be deemed to apply also to loss or damage directly caused by cyclone, storm and tempest .

(b) *FLOOD*

⁴⁶ Asian Development Bank, 2019

⁴⁷ The text is standard among all general insurance companies in the Sri Lanka market, and the Sanasa General Insurance standard fire insurance policy is based on FOC (foreign) wording.

Provided that Additional Perils Endorsement-Cyclone, Storm and Tempest also applies to the policy, the expression "Cyclone, Storm and Tempest " in the said Endorsement shall extend to include loss or damage to property insured (Including loss or damage by fire) directly caused by flood which for the purpose hereof shall mean the escape of water from the normal confines of any natural or artificial water course, lake, reservoir, canal or dam ,but excluding destruction ,damage by bursting or overflowing of water tanks, apparatus or pipes or flow of accumulated rainwater from the compound.

4.4 Identification of gaps in supply to cover the target group from flood risk and the challenges in insuring micro-enterprises

The target group for the proposed project are MSMEs situated in Sri Lanka's three Districts of Gampaha, Kalutara and Ratnapura. It has been mentioned earlier in this Report that Sri Lanka has 14 active general insurance companies operating. None of the said companies provides a stand-alone flood cover (Vanguard Services Survey Report – Supply Side Survey). It is the usual market practice in Sri Lanka to add flood risk to fire and theft insurance or to have it covered under property all risk policies. Taken in the context of MSMEs, the premium to be paid is considered prohibitive especially for micro enterprises due to the multitude of covers involved in fire policies with additional covers. Whereas a standalone flood policy with a parametric element (whether full parametric or hybrid) would be focussed on the actual need of the insured and priced lower.

Most of the general insurance companies have been providing services to medium and small sized business enterprises and only a few of the insurance providers operate in the microinsurance segment.

Those insurance providers that do have lines of business relating to MSMEs have pointed out several challenges faced in offering insurance solutions to this category. During the survey carried out by Vanguard Services, officers of insurance companies (supply side respondents) cited the following as issues they confronted when promoting insurance to micro businesses:

- It is perceived by micro businesses that it would be difficult to obtain payment from insurance companies.

- The cost of sales calls to a micro business are higher compared to the cost of sales calls to medium and small businesses because, it takes many visits to a micro business entity to finalize the proposal, and considering the nominal amount of premium collected, the cost of converting the calls into a successful outcome is very high.
- Some micro businesses do not maintain proper business records and lack discipline in regularizing formal business accounts. There was uncertainty as to whether the business owners will periodically submit an independent valuation report regarding the stocks and goods.
- In certain cases, a policy is not issued because the prospective insured party failed to take measures as per the advice given by the insurance provider to mitigate possible damages.
- A large team of assessors would be required to continuously monitor the business of micro and small business.

The above points indicate the challenges identified by the insurance providers in Sri Lanka, especially related to “micro” enterprises and the advantages of a parametric solution in addressing some of these issues is given in Sections 6.1 and 6.3 of this Report.

On the other hand, insurance providers felt that “small” and “medium” enterprises were more open to considering insurance options when compared with micro enterprises. Since SMEs’ business practices provide for record keeping, it assisted the insurance providers to assess the business volumes of the SMEs, and consequently, it was easier to establish the values of losses if a fortuitous event occurs.

Out of the MSME category, medium enterprises (45%) were most likely than micro (22%) or small enterprises (37%) to take some form of insurance cover for their business, and those enterprises were generally willing to make changes to mitigate any losses.

Despite the aforementioned difficulties, it is the consensus among insurance providers that a collective approach should be implemented to build awareness of flood risk insurance with the micro businesses community and provide a comprehensive flood risk solution to resolve their recurring losses due to floods.

According to current market practices if the flood event is repeated many times in a year, the addition of flood insurance (to a fire policy) will not be provided by the majority of insurance providers in Sri Lanka. However, some insurance providers may decide to issue an addition of flood risk to a fire policy attaching a very high premium. The premiums will then be distributed among those who face the risk and do not face the risk of flood. In this case, the probabilities are calculated and based on the risk assessment, the premium is calculated by distributing possible risk level across all the insureds, but it cannot be done in areas that are considered as high flood risk. This would be especially exacerbated where the government has officially declared a certain location as a high flood-risk area. Another issue arising from this scenario is that micro businesses will not have the means to pay the increased premiums aforementioned.

Although there have been discussions initiated by the Insurance Association of Sri Lanka (IASL) with the IRCSL, to develop a fund that is similar to strike riot civil commotion and terrorism fund (SRCC&T Fund) to provide relief for businesses located in flood prone areas, these deliberations have not had any positive outcome due to lack of cooperation among the IASL members. This lack of progress could also be attributed to the lack of support offered by business communities located in the flood affected districts. The insurance providers are inclined to the view that, whenever there have been attempts by successive governments to relocate businesses affected by floods in flood prone areas, particularly in Ratnapura and Kalutara Districts, the businesses in these areas have not cooperated.

Due to the above challenges, some insurance providers are reluctant to invest resources into development of flood risk covers for MSMEs, and as a result there is a gap in the insurance market relating to flood risk covers for MSMEs in Sri Lanka.

5. Demand Side investigation: Target group demand analysis

5.1. Results of demand analysis and willingness to pay premium by MSMEs

Given the need to conduct market research to understand the market potential among MSMEs for insurance coverage against flood damage, as well as their willingness and ability to pay for such coverage, the project team carried out a field survey among MSMEs in Sri Lanka. Vanguard Survey Pvt. Limited was commissioned to produce a survey report on understanding the need for an affordable insurance solution for MSMEs covering flood disaster damage in Sri Lanka. Vanguard Survey Pvt. Limited is a survey and research agency formed in December 2016 which has expertise in conducting qualitative and quantitative survey across the country with a wide base of experienced enumerators. It also has extensive experience in handling Socio Economic research, Baseline Surveys, Tracking Studies, Market Insights (Consumer Research, Trade Research) and Measuring Political Sentiment (opinion polls).

Understanding the current perception of flood risk of MSMEs, identifying the emergency needs and requirements of MSMEs and recognizing triggers and barriers to insurance were the focus areas in the survey. Meanwhile the survey also intended to collect data on determining what kind of product(s) is/are suitable to meet the risk management needs of the target market and understanding the “perceptions of the category” aspired by the target audience and finally to comprehend solutions required to prevent micro and small businesses falling into vulnerable positions in the aftermath of natural disasters, especially floods. The survey therefore investigated both the supply and demand side of flood insurance products. For the supply side, it looked into the availability of insurance solutions covering MSMEs against floods and the current uptake by MSMEs. For the demand side, it explored MSMEs’ potential needs for such insurance coverage and their willingness and ability to pay. Based on investigation on both sides, the research analysed the gaps existing in the market and how a potential insurance package(s) for MSMEs covering flood damages in Sri Lanka’ could bridge those gaps.

The methodology and approach were tailor-made for the study and accordingly a mixed method was applied for data collection. The mixed method consisted of a qualitative component in the form of 19 in-depth interviews (IDIs) and 9 focused group discussions (FGDs) with MSMEs, insurers and officers as the first stage, followed by a quantitative component in the form of a sample survey with 263 MSME respondents (See Appendix 4) from three of the most flood

prone areas of the country, namely Gampaha, Kalutara and Ratnapura Districts, conducted as the second stage. The FGDs were carried out among business owners in all areas except for Kalutara where the FGDs had to be carried out in the form of IDIs due to the volatile situation caused by the ongoing economic crisis during the survey period. This section presents the summary of demand analysis and market potential.

5.1.1 MSMEs' recurrent flood damages and losses

It is noted that flood related issues are the main type of natural disaster which impacts most of the MSMEs. All 263 surveyed MSMEs have experienced floods at least once, with 18%-27% experiencing flood 2-3 times a year. This indicates that there is a need to have a supporting mechanism to assist the businesses that encounter floods.

43% of the respondents out of the 263 MSMEs surveyed show damages and losses due to natural disaster related problems such as floods as the key challenge faced by them. This figure rose to 52% of micro enterprises, while it was 30% each for small and medium enterprises. To respond to flood events, the most common measures reported by the surveyed businesses are relocating goods and machinery during floods, and cleaning up business premises after the flood event. The average costs vary among the segments. For the micro and small enterprises, it costs about LKR.10,000 (USD 50) for shifting goods, and medium and small enterprises spend over LKR 100,000 (USD 498) to clean up the business premises to restart their business.

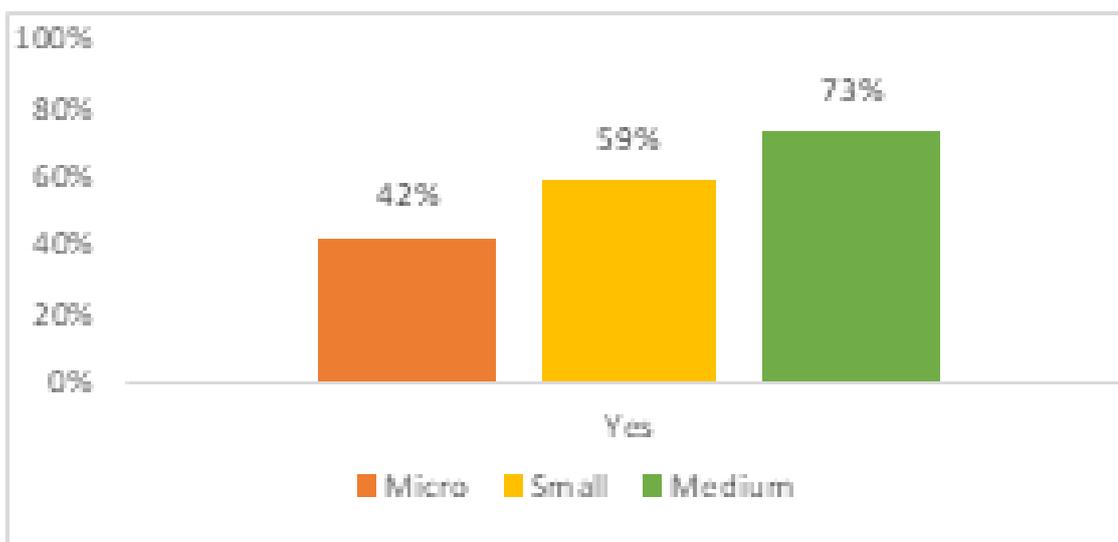
To further understand the level of losses experienced by MSMEs due to floods, the surveyed MSMEs were asked to indicate their losses based on the three most recent flood events. It is observed that Gampaha district has reported relatively lower losses compared to other districts concerned in the study. For the most recent flood events considered, the losses of micro enterprises accounted to around LKR. 170,000 (USD 846) and LKR. 550,000 (USD 2736) for small enterprises and LKR. 2 million (USD 9950) for medium enterprises, reflecting the size and volumes of their business. These make up to 25% - 45% of their revenue and the estimated revenue ranges between LKR 377,777 to 8 million (USD 1888-40000). This is considered to be very high for all segments and it takes a considerable amount of time and financial input to recover.

More than two thirds of the respondents indicated that they shift their goods to a safer location and more than half of them had to hire a vehicle to shift their goods. In such instances, these

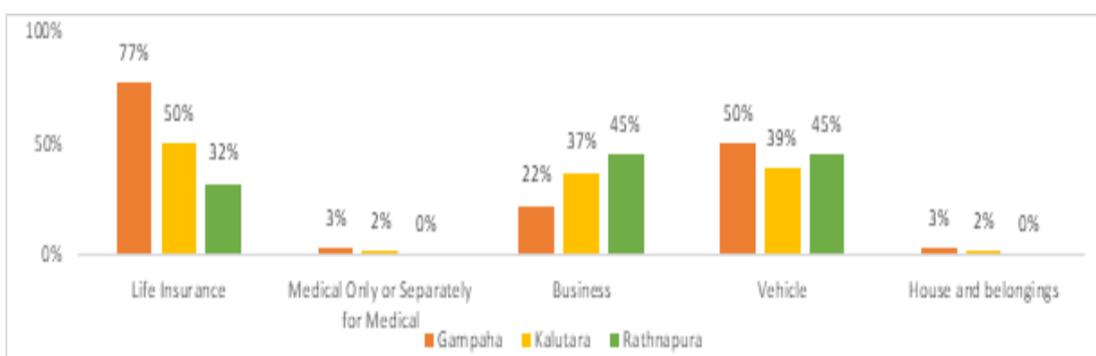
activities result in an additional cost. The micro segment seems to be having more flood related financing problems, but it was not the case with the small and medium business. Most of the micro businesses operate on a day-to-day income basis and restarting cost has also been a key concern as they have to incur a high cost in order to secure finance for restarting their business. There is a high possibility of incurring higher losses in the micro segment. It was evident through the survey that they may have to mortgage their valuables to obtain money or seek financial assistance from any available source and borrowing from such informal sources may expose micro enterprises to high risk of being trapped in a vicious debt cycle. This is corroborated by 48% of the micro enterprises surveyed claiming that they had to mortgage their valuable items. Similarly, the same group also tried to obtain government assistance to rebuild their businesses. The MSMEs had to bear significant losses, relative to their revenue, during the most recent flood incidents.

5.1.2 MSMEs' current insurance coverages

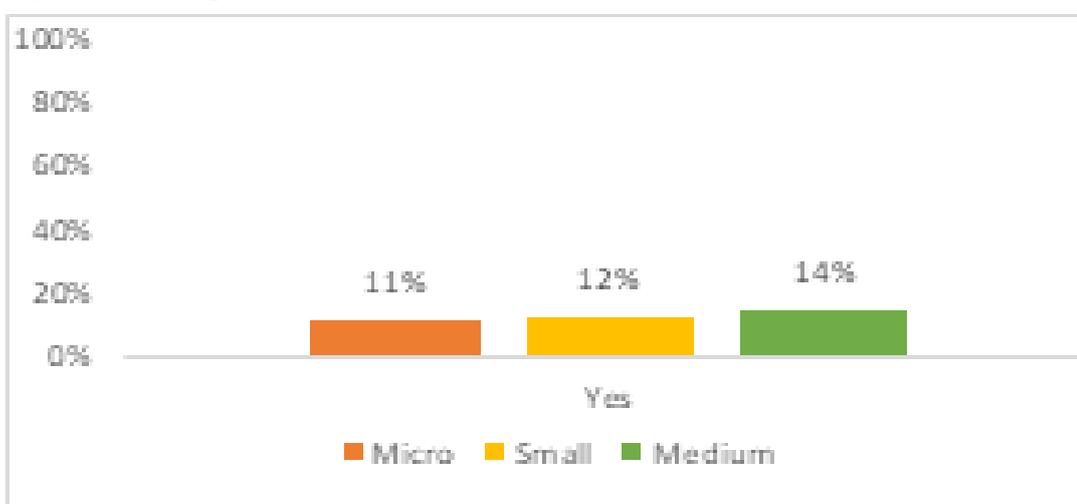
MSMEs do take insurance cover and 42%, 59% and 73% for micro, small and medium enterprises respectively as shown in the Figure 5.1, have some form of insurance cover (including life insurance). The survey however revealed that there is a relatively lower number of enterprises with an insurance policy specifically designed for businesses (except motor vehicle insurance due to mandatory legal requirements). Overall, only 45% of the medium enterprises had business insurance, compared to 33% of small enterprises and 22% of micro enterprises (Figure 5.2). It is seen from the survey that insurance providers' reach to micro enterprises also remains at lower levels compared to small and medium enterprises. Furthermore, as depicted in Figure 5.3, among all respondents, only a small minority of enterprises (11% of micro, 12% of small and 14% of medium) have insurance cover against flood damages. This covers losses for property which includes building and stocks. In addition, insurance providers have declined to offer any cover to insure against flood to some MSMEs because their businesses are located in flood prone areas as declared by the Disaster Management Center, a challenge that needs to be overcome by any new product to be designed for this market.

Figure 5.1: Insurance coverage

Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

Figure 5.2: Take up of insurance products

Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka (Sample: 132, multiple response)

Figure 5.3: Take up of flood Cover

Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

The investigation further explored the reasons why individual businesses choose not to have insurance coverage. An important observation is that MSMEs show little awareness of the potential benefits of flood insurance. Generally speaking, MSMEs were not certain whether insurance providers were able to offer flood coverage. This is probably due to the fact that insurance providers have sometimes declined to offer any cover against flood because of enterprises being located in flood prone areas, as declared by the Disaster Management Center. Apart from this, distrust towards insurance companies and the administrative burden of documentation are seen as the main reasons for not obtaining flood cover or property insurance in general. This documentation includes valuation of the damage, purchase invoices, letters from Public Health Inspectors (PHIs) of the local authority, etc. Past experience or word of mouth information of adversely affected people has also created a negative impression of insurance companies' and a perception that claims settlements are not always honoured. The FGDs also revealed that the majority of respondents have obtained their policies through an agent. In some instances, such agents had promised to investigate the claims process and needs of the enterprise concerned, but it had not yielded any fruitful outcome, resulting in a negative perception.

The average responses showed that trust towards insurance companies was low for both micro and small businesses, whereas medium businesses were more positive towards trusting insurance companies. Due to the above concerns, most of the micro level businesses believed that being dependent on business savings is better than relying on an insurance policy. Small and medium businesses were indifferent on this topic, possibly due to value of losses being higher compared to micro level businesses. The majority of the respondents believed that borrowing money to rebuild their business is more convenient than obtaining an insurance claim. Overall, lack of financial literacy is also a reason for MSMEs' reluctance to adopt insurance cover. Other reasons mentioned by the respondents are listed in Table 5.1 (ordered by importance from high to low, as scored by respondents).

Table 5.1: MSMEs Reasons for not having flood insurance cover

Order	Reasons for not having an insurance covering flood
1	Insurance companies imposes so much documentation and process
2	It's much better for me to have saving on my own to face such situation because we know flood will be there at least twice a year

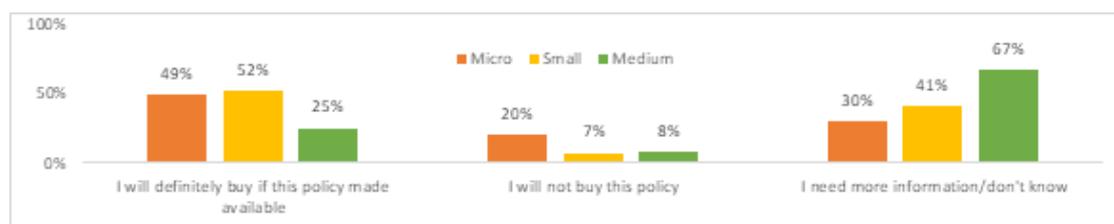
3	It is much easier to borrow some money and rebuild the business than going behind to get the insurance money
4	All the details and conditions are in English, and we do not understand those conditions
5	I have not heard insurance companies honouring the claims properly
6	None of the insurance companies offer any policies for flood related incidents
7	I do not have clear idea about insurance companies
8	I do not trust insurance companies because of my experience

Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

5.1.3 Willingness to pay for potential insurance solutions

To understand the market potential of launching flood insurance product(s) covering MSMEs in Sri Lanka, this study further investigated MSMEs' willingness to pay for a potential flood insurance policy designed to cover their specific needs. Despite the above stated concerns regarding insurance companies, 64% of the respondents show interest in considering an insurance package as a resilience measure to manage the impact of possible flood risks. Figure 5.4 provides an overall understanding of the willingness to pay for an insurance covering flood by each business segment. The study further explored MSMEs' preference for 1) the type of flood insurance policy; 2) the premium cost; and 3) choosing insurance provider.

Figure 5.4: Willingness to pay for the potential insurance policy



Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka (Sample: 169)

1) The type of flood insurance policy

As this feasibility study was carried out to support the development of a conceptual proposal for building innovative insurance products, the survey explored the market potential of different types of insurance policies. Three different types of potential insurance options for flood for MSMEs were introduced to the respondents (Table 5.2). The following section will

present the respondents' preference among the three options and responses to other aspects of the investigation.

Table 5.2: Different types of potential insurance options

Type	Type 1	Type 2	Type 3
Policy	Indemnity policy	Parametric policy	Hybrid policy (based on the FGDs' recommendations)
Features	Amount of loss will be assessed and paid (will take time, but more likely to cover the actual loss)	Predetermined amount will be paid when policyholder is affected by an adverse weather condition (faster but may differ from actual loss)	<ul style="list-style-type: none"> - Immediate cash advance of 60% of the insured value for you to buy raw materials or whatever needed to rebuild the business - Balance amount based on assessment of actual losses - Quarterly Assessment of the business to ascertain the value - Monthly premium options - Recovery process solutions and advisory support - 10% of value for goods relocation to avoid damages due to flood

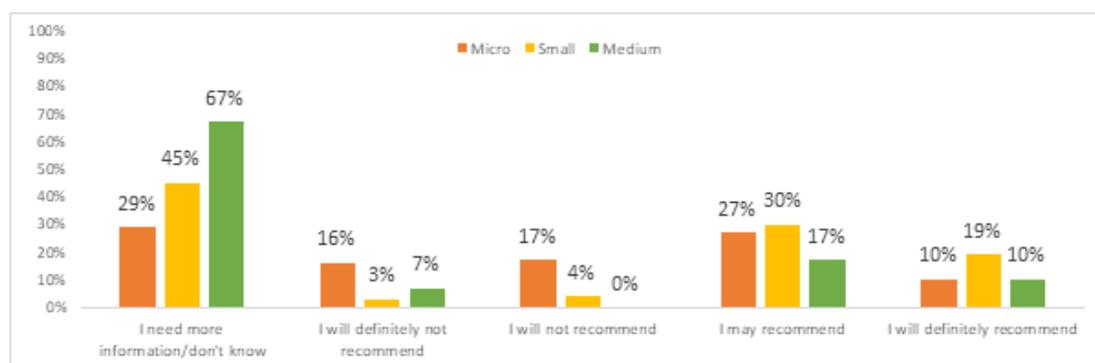
Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

Overall, the majority of the MSMEs in the sample showed interest in a hybrid policy and intended to receive more information to make a definitive decision. However, the difference in preference for hybrid and indemnity policies among the small enterprises was marginal. Micro businesses preferred option was the hybrid policy, followed by the parametric policy. For small business, the preferred option is also the hybrid policy, followed by the indemnity policy. While medium businesses preferred the indemnity policy, followed by the parametric policy. The rationale behind this varying preference could be that smaller businesses prefer to have simple and quick cash compensation to recover from flood damage, which is the feature of the hybrid and parametric policies. When businesses are larger, they normally have more cash reserves, and therefore, a quick compensation process is not the most critical factor for their business recovering, and often precautionary measures have been taken to prevent losses. These larger businesses can afford to go through the complicated pay-off process for the actual losses provided by an indemnity policy, hence this is their preference.

Taking the hybrid policy as the preferred product type, this study further explored the willingness to pay for such insurance among all respondents. Around half of the micro and

small businesses showed interest in paying for the hybrid policy but the medium business indicated that they wanted to obtain more information. This is in line with the fact that medium businesses indicated the preferred policy type of indemnity policy followed by parametric policy. In total, only 20% of micro enterprises and very few small (7%) and medium (8%) enterprises clearly expressed rejection of such insurance solutions. The majority of the surveyed MSMEs remain positive/open for the potential product that can help them become more resilient to the impacts of recurrent flooding. Furthermore, the market potential could be greater due to 37% of micro and 49% of small enterprises indicating that they would recommend or consider recommending the policy if made available, although around 67% of medium enterprises would need more information regarding the benefits of the product before recommending to anyone else (Figure 5.5). This is also in line with the fact that this particular investigation was based on the assumption of a hybrid policy, which was more preferable among micro and small enterprises than by medium enterprises.

Figure 5.5: Willingness to recommend



Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

The factors that influence the respondents' decision whether to pay for a policy were also investigated. Among those factors suggested by the FGDs, the main concern among the respondents was to have a place/platform to submit complaints against insurance companies if adequate compensation is not made, which arises from their previous experience (Table 5.3). This is again indicating that mistrust in the insurance provider is one of the key factors for MSMEs deciding whether to take out insurance cover. While each insurance provider is required to have a claims department, as well as a complaint handling department, there is also an Insurance Ombudsman scheme in place, along with an Insurance Regulator (IRCSL) to whom such complaints can be made. Consequently, there appears to be a clear gap in knowledge among the MSMEs with regard to these provisions. Other than the factor of trust in

insurance providers, doubts on practicability of the policy were also noted in some of the responses despite most respondents believing that flood risk insurance will be a solution to build resilience in their businesses.

Considering that indemnity insurance policies require a loss adjuster and therefore rely on subjective assessment of losses, while parametric insurance is able to resolve such practices by nature of a fixed payment agreed upfront, the survey indicates that there is inclination toward a hybrid policy.

Table 5.3: The most important factors when considering a hybrid policy

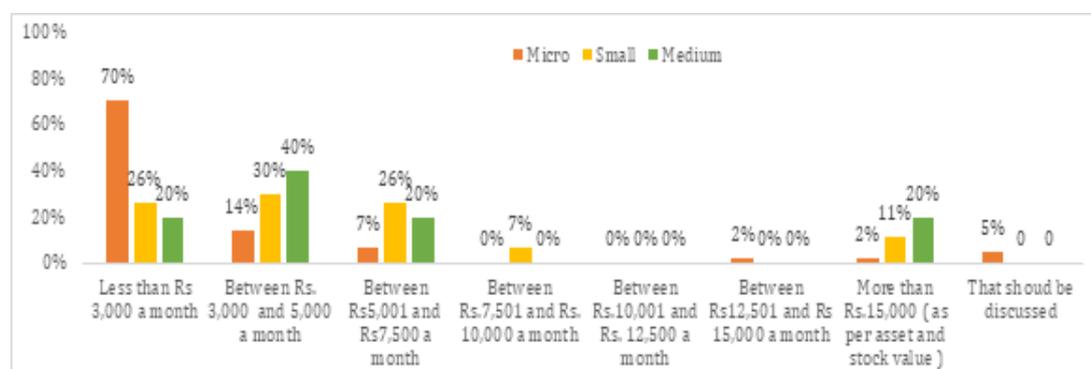
Factors influencing if a hybrid policy is wanted	Micro	Small	Medium
This proposal likely to solve my problem		X	
It does not put any unnecessary burden on people like me			
This will build trust on Insurance			
I still have doubts whether it is practically possible	X		X
There should be place for us to complain if the insurance company does not pay the compensation	X	X	X

Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

2) The expected premium cost

As shown in the Figure 5.6, out of 79 respondents who indicated willingness to buy the policy, the majority of micro enterprises are willing to pay a premium of less than LKR 3,000 (USD 15) a month. While small and medium enterprises showed interest in the range between LKR 3,000 (USD 15) to 7,500/month (USD 37.5). As the premium will depend on the value of assets being covered, it is most likely that the premium will rise with the size of businesses being insured.

Figure 5.6: How much MSMEs are willing to pay for premium



Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka (Sample: 79)

It should be noted that willingness to pay premium is based on the assumption that the potential insurance is a hybrid policy, therefore the data collected reflects the respondents' willingness towards this type of policy, even though this is not the preferred option of all segments surveyed, hence the actual willingness to pay may be higher than indicated where respondents are presented with their preferred policy option. Similarly, the actual premium that respondents are willing to pay could also appear differently (most likely will be higher) for their preferred type.

3) Choosing insurance provider

Table 5.4: The most important factors considered when selecting an insurance policy

Factors	Micro	small	Medium
Premium			×
Track records of previous payments for similar cover			
Easy claim settlement process			
Quick settlement		×	
Quick assessment	×		

Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

Considering the overall responses from MSMEs, a quick loss assessment by insurance companies following a flood was considered as the most important factor when selecting an insurance company. Assessing under each category as shown in Table 5.4, a quick assessment was considered most important for micro level businesses in particular while quick settlement and premium were key deciding factors for small and medium businesses respectively. This is also in line with other observations of smaller businesses (micro and small), as they prefer insurance policies that can pay compensation quickly, so that their businesses can return to operation quickly. Medium size enterprises are less concerned with quick payment and more focused on premium costs.

5.1.4 Conclusion

Overall, it was indicated that almost half of those surveyed considered natural disasters and floods in particular to be the main type of disaster to which they were exposed. There is a high percentage of MSMEs affected by floods at least once a year and these affected businesses rely heavily on various financial and tangible assistances for recovery. A very low percentage of MSMEs have subscribed for an insurance policy that is specifically designed for businesses and an even lower percentage have obtained an insurance package to cover flood risks. On the

other hand, insurance companies' reach to businesses at micro level is insignificant, which reflects the low level of resilience in the overall business category.

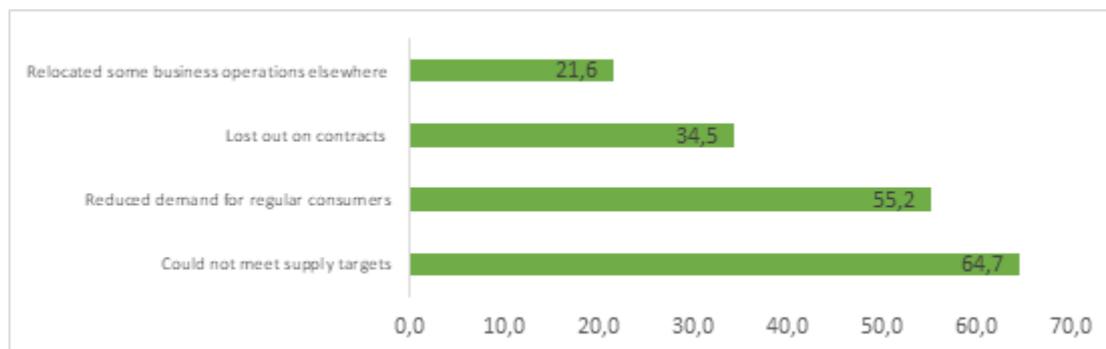
However, the survey also revealed the MSMEs' interest in adopting/considering to adopt an insurance package especially designed for flood risks. A hybrid policy was the preferred policy type with interest shown in parametric insurance. There was also a pressing concern to have a mechanism to submit complaints. The survey results further outlined the desired premium schemes as below LKR 3000 (USD 15) for micro enterprises, LKR 3000-5000 (USD 15-25) for small enterprises and LKR 5000 - 7500 (USD 25-37.5) for medium enterprises. Finally, quick loss assessment, settlement and quantum of premium were outlined as the key concerns when deciding an insurance company.

5.2 Estimated benefit for target group

5.2.1 Affected MSMEs and related population

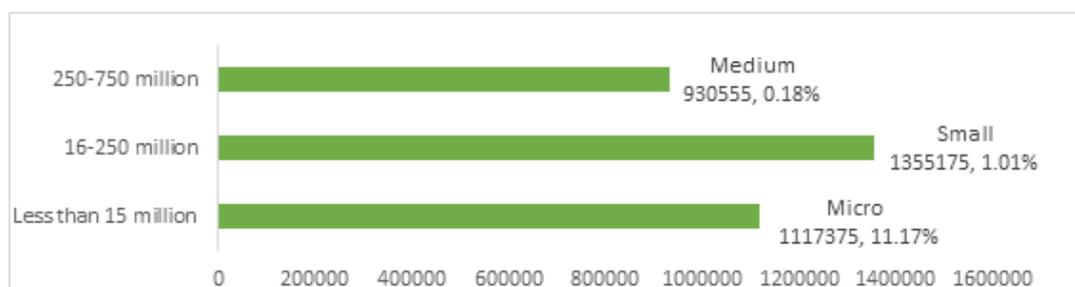
Section 5.1 presents an estimation of the MSMEs' flood related damage costs, which vary among the segments due to the size of their business., e.g., the average damage costs for micro businesses are calculated at LKR. 170,000 (USD 846), small businesses at LKR. 550,000 (USD 2736) and LKR. 2 million (USD 9950) for medium businesses, making up to 25% - 45% of their revenue. This is also in line with the earlier BCCR Baseline Study on the flood profile of MSMEs in the three districts in Sri Lanka⁴⁸ where the impact of the flood damage in the past 5 years (2013-1018) was investigated. According to the BCCR Baseline report (Figure 5.7), overall, 64.7% of SMEs could not meet supply targets in the short-term and 55% faced reduced demand from regular consumers. 34.5% further lost out on contracts as they could not meet supply obligations due to floods. 21.6% of SMEs had to relocate some of the business operations elsewhere. However, this percentage remains lower as not all businesses can easily relocate operations due to the nature of business, source of raw materials and proximity to customers. Hence, relocation is not an easy option even though this might ensure protection from floods. The loss of revenue from business due to the above impacts has been about 22% during the last 5 years.

⁴⁸ UNEP DTU Partnership, 2019

Figure 5.7: Percentage of SMEs reporting impact of floods on business

Source: Building Businesses' Climate Resilience (BBCR) Report on Baseline Mapping Exercise, 2019.

Furthermore, the BBCR Baseline report shows (Figure 5.8) although in absolute terms, small enterprises suffer the highest levels of average annual damage cost (LKR 13,55,175, USD 6742), it should be noted that in relative terms, micro enterprises report extensive average annual damage of LKR 11,17,375 (USD 5559), which accounts for 11.17% of annual turnover (around USD 50,000), suffer far more than small and medium enterprises when compared with their annual turnover, which were 1.01% and 0.18% of their annual turnover respectively (Figure 5.8).

Figure 5.8: Annual damage cost as % of annual turnover

Source: Building Businesses' Climate Resilience (BBCR) Report on Baseline Mapping Exercise, 2019.

This feasibility study extrapolates these potential costs of flood related damage to all flood affected MSMEs in the three districts, using the following methodology. The official national data shows that there were 1.017 million MSME establishments, accounting for 52% of the country's GDP and for an extensive portion of the population of approximately 2.255 million people in the non- agricultural sector. According to the BBCR Baseline Report the total number of MSMEs in the three districts was estimated as shown by Table 5.5. Using the total MSMEs (1.017 million) and related population (2.255 million) nationally as a reference, the total MSMEs populations affected by flood risk are extrapolated as Table 5.6. In total, 16,117 MSMEs and more than 35,000 people are affected by flood disaster in the three investigated

districts. Extrapolating this coverage to the national scale, potentially there will be more than 70,000 MSMEs with 156,000 population affected. Since this estimation does not include the population involved in the agriculture sector, it should be noted that an even larger portion of population would be affected if this sector was included in the estimations.

Table 5.5: Estimated affected MSMEs in the three districts

District	Total No. of MSMEs	% of MSMEs exposed to flood	MSMEs exposed to flood	Micro	Small	Medium
Gampaha	127,734	5,95	7,578	6,939	540	99
Kalutara	60,717	9,55	5,794	5,394	342	58
Ratnapura	45,210	6,08	2,745	2,508	215	22
Total	233,661		16,117	14,841	1,097	179

Source: Building Businesses' Climate Resilience (BBCR) Report on Baseline Mapping Exercise, 2019.

Table 5.6: Estimated affected MSMEs populations in the three districts

District	Total MSMEs population	% MSMEs population exposed to flood	MSMEs population exposed to flood	Micro	Small	Medium
Gampaha	283,570	5,95	16,825	15,405	1,199	220
Kalutara	134,792	9,55	12,863	11,975	760	129
Ratnapura	100,367	6,08	6,095	5,568	478	49
Total	518,729		35,783	32,948	2,437	398

Source: Survey report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka

The previous BBCR project extrapolated the costs for all the flood affected MSMEs in the three districts which are shown in Table 5.7. For each MSME, the annual cost of flood-related damage was estimated at LKR 2,38,365 or USD 1,589. The BBCR Baseline report also pointed out that those costs were borne by “*themselves through their operating costs or savings and not being compensated through insurance or government compensation mechanism. Such high costs due to recurrent floods pose a huge additional burden on the MSMEs in Sri Lanka*”.

Table 5.7: Extrapolated total costs of flood damages for MSMEs in the three districts (N=5727*)

Estimated cost of flood related damages (USD exchange rate average in 2018-2019)	
Total estimated cost of damage to physical infrastructure	LKR 599.93 million (USD 4.00 million)
Total estimate cost of damage to equipment and products	LKR 3145.27 million (USD 20.97 million)
Total estimated immediate expenditure	LKR 350.14 million (USD 2.33 million)
Total Extrapolated costs borne by SMEs due to floods	LKR 4095.34 million (USD 27.30 million)
Total annualized extrapolated costs	LKR 1365.11 million (USD 9.10 million)
Average annual cost per SME due to floods	LKR 238,365 (USD 1,589)

Source: BBCR baseline report

* Most micro enterprises are quite small in terms of size of operations and number of employees and only about 30% of micro enterprises on the basis of annual turnover have been covered. Thus, only 30% of micro enterprises are considered for extrapolation (in total there are 5727 MSMEs across the three districts).

5.2.2 Estimated benefit

According to DAC List of ODA Recipients⁴⁹, Sri Lanka is an ODA recipient country (Lower Middle Income). The country's GDP per capita PPP is USD 12859 (Year 2021). The target group will be MSMEs, including their families and employees. However, the country has more than 1.1m MSMEs and they range from micro to medium enterprises, and there is no national data on the average income level of MSMEs in Sri Lanka⁵⁰. An assumption is made based on the available best data, that PPP per capita per day for the entire target group (MSMEs, especially the micro segment) shall be lower than USD 11.60. Based on the above assumptions, the proposed insurance would potentially provide financial support to more than 16,000 MSMEs and more than 35,000 people (with PPP less than 15 USD PPP) in the three districts, to help them building resilience of their business for recovering from flood damage and returning to operation faster. The actual number of beneficiaries could be even higher in these three districts, as the above estimation does not include small business and people involved in the agriculture sector, which could potentially benefit from the proposed insurance measures as well. And if the potential product could be commercialised to the entire country beyond the three studied districts, the number of beneficiaries could of course be even larger.

⁴⁹ <https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/DAC-List-ODA-Recipients-for-reporting-2021-flows.pdf>

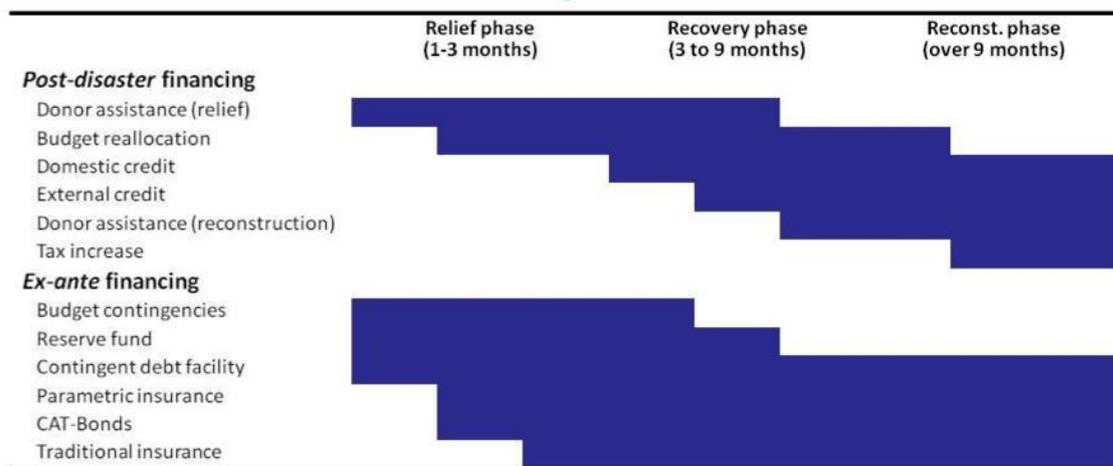
⁵⁰ This data was not collected directly during the survey, is because that from the previous experience, respondents had always been rather reluctant to answer questions related to incomes. Especially when this data was collected individually - which means the survey team would have 1 to 1 interview with each business owner. However, based on the losses share of the annual revenue, the monthly revenue of the investigated MSMEs' is estimated as between LKR 31,481 to 666,666.

6. Feasibility Evaluation

6.1 Potential risk transfer solutions (i.e., parametric/indemnity/ hybrid) and the required financial, regulatory and legislative viability and technical expertise

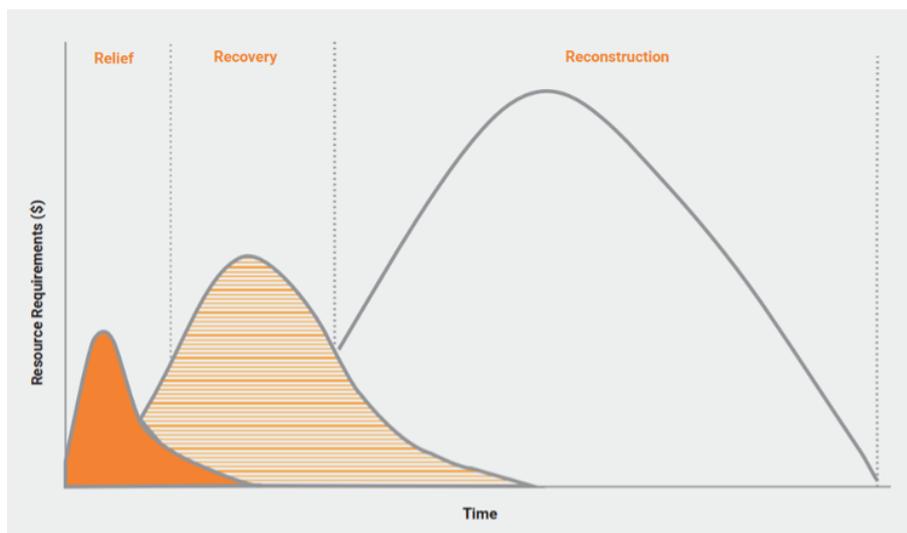
Disaster risk insurance is one of the key sources of ex-ante financing and is a risk transfer solution which could be adopted by national disaster risk financing strategies globally. Figure 6.1 below sets out the different types of disaster financing options adopted globally and their impact on post-event relief, recovery and reconstruction.

Figure 6.1: Sources of disaster financing



Source: World Bank, Sovereign Disaster Risk Financing, DRFIP
<https://documents1.worldbank.org/curated/en/110301467986308047/pdf/97453-BRI-Box391476B-PUBLIC-Financing-SDRF-Concept-Final.pdf>

Figure 6.2: Financing requirements for emergency response



Source: Ghesquiere, F. and Mahul, O. 2010. Financial Protection of the State Against Natural Disasters: A Primer”, Washington D.C.: World Bank

As depicted in Figure 6.2, there are 3 stages of post-disaster funding: relief (1-3 months), recovery (3-9 months) and reconstruction (over 9 months).

Currently, Sri Lanka’s national disaster management covers only ex-post disaster damages and losses. The only ex-ante financing available, is the Treasury budget contingency which would cover only the “Relief Phase” in Figures 6.1 and 6.2.

Sri Lanka’s former public insurance scheme, the National Natural Disaster Insurance Scheme (NNDIS), was established in 2016 and was managed by the state-owned business enterprise National Insurance Trust Fund (NITF). Under the NNDIS, all uninsured households in Sri Lanka, irrespective of their poverty level, were insured and households already insured were deemed ineligible. The cover extended to residential property, micro and small enterprises, and risk to life. The NNDIS was successful in payouts to hundreds of thousands of affected poor and vulnerable population during the 2016 floods. However, due to several reasons, the financial performance of the scheme was adversely affected:

1. two consecutive years of heavy flooding;
2. initial premium not being adequate (was being gradually addressed by the Treasury by increasing the premium); and
3. delays in procuring reinsurance under the government procurement process leaving the fund exposed during certain periods.

From April 2020, the GOSL stopped paying premium and the scheme was discontinued. GOSL has decided to use the Treasury budget for disaster relief.

In parametric insurance the pay-outs are based on index values linked to predefined disbursements unlike indemnity insurance where pay-outs are based on individual losses. The index can be defined in terms of the hazard (e.g., earthquake magnitude, rainfall duration and intensity) or the impacts (e.g., people affected or estimated economic impacts caused by an event).

It has also been suggested that insurance providers can model parametric risk more accurately and price products more appropriately, since in essence, parametric insurance entails greater symmetry of information⁵¹ and thus a larger and/or more diversified risk pool⁵².

Parametric insurance does not involve loss assessment, since predetermined criteria will calculate the pay-out as opposed to indemnity insurance involving loss assessment, which, in most instances, involves a lengthy process and additional cost. Furthermore, the requirement of a loss adjuster under indemnity insurance, relies on subjective arbitrability. Since corruption is of high concern, parametric insurance is able to resolve such practices by nature of a fixed payment agreed upfront. For natural catastrophes, physical models and satellite data are becoming commonly used for monitoring parametric indices because of their independence from manipulation.

As a consequence, parametric insurance pay-outs are disbursed more rapidly than traditional indemnities requiring loss investigations.

However, parametric insurance involves “basis risk” which is the potential difference between claims that are paid out (based on index values) and actual losses suffered. Basis risk pertains primarily to parties that experience damage but do not receive compensation because coverage was not triggered by a change in index value. Basis risk can also manifest itself as a trigger being exceeded and a payment being made when damage has not been experienced. These situations can undermine support for parametric insurance from the re/insurance industry, when payments are made for a non-impacting event. Where basis risk occurs, policyholders may become dissatisfied with parametric insurance, leading to cancellation or nonrenewal, reduced enrolment, suboptimal risk pooling, and financial instability. There are a number of ways to mitigate basis risk, including improved data collection and risk modelling, phased pay-outs, and gap insurance to protect against uncovered losses.

⁵¹ Symmetry of information because unlike indemnity insurance covers of several parties, which entail varying sum assureds, and lacks transparency (i.e., each party is unaware of the sums assured of other parties), in parametric insurance the contracted pay out is pre-agreed and transparent to all and triggered when the flood occurs within a pre-defined geographical area (Cat in a box or Cat in a circle) which is the 1st trigger, and of a certain magnitude which is the 2nd trigger. Moreover, the parametric solution could be configured so that all insured parties affected by the flood receive a similar amount at payout.

⁵² Horton, J.B., 2018

Many countries are either in the process of introducing parametric or hybrid disaster risk insurance covers or are considering doing so – e.g., Viet Nam, Mexico, Peru, Colombia, Indonesia, Algeria, Ghana, Nigeria and the Philippines. The World Bank has stated that the experience from the Philippines demonstrates that parametric insurance is an appropriate instrument where the intention is to provide rapid liquidity following a disaster, and that it is possible to structure and execute such a program even in countries with limited experience in disaster risk finance and insurance.⁵³

For the project in Sri Lanka, a predominantly parametric insurance solution seems preferable for three main reasons. First, the speed of the parametric payment allows affected MSMEs to be assisted much more quickly than with a traditional indemnity insurance payment, which would require the intervention of a loss assessor. This is particularly important for businesses that are exposed to cash flow constraints and need to be able to recover their usual level of sales. Additionally, by avoiding the use of a loss assessor, parametric technology allows for a drastic reduction in claims management costs, which is reflected in a lower insurance premium. This will promote the scale up of the insurance product. Each business would be able to insure itself in a very flexible way, by choosing different levels of premium/coverage according to its budget and its appetite for risk. Finally, parametric insurance supported by independent assessment of event triggers may help to overcome some of the trust issues that were identified in the analysis of MSMEs' views on insurance. To help with this, it may be necessary to provide MSMEs with literature that explains how parametric insurance works in plain language.

To limit basis risk, our project proposes to group MSMEs by granular geographical area and to propose a common trigger threshold. We will generate an analysis of flood risk that is sufficiently accurate to ensure that MSMEs identified as a high flood risk are very likely to actually suffer a flood. Thus, if the trigger is activated for a dedicated area, all insured businesses located in that area will be eligible for payment without having to apply for it. In addition, in the exceptional case where an MSME is affected by very localized flash flooding not captured by the parametric index, the MSME will be able to request an expert assessment from the insurance provider. This expert assessment will be carried out free of charge if the loss is confirmed. However, the expert assessment will be invoiced based on the insurer's cost (capped and pre-determined in the contract) if the loss is not recognized in accordance with the

⁵³ World Bank, 2020a.

terms of the contract. In the event that several MSMEs in a given area make a claim at the same time, additional satellite imagery or a drone shot could also be used to authenticate the loss.

The technical expertise related to the construction of the parametric index will be entrusted to AXA Climate, an AXA Group company dedicated to parametric insurance and climate adaptation consulting. Precise maps of the risk of flooding will be provided by JBA Risk Management (30 meters) and used with a probabilistic catastrophe model to give a full temporal analysis of flood risk for the areas of interest. This type of modelling provides the risk metrics (e.g., average annual loss, aggregate exceedance probability, event loss tables) required as input to the design of parametric insurance triggers. The price of the risk will be estimated as accurately as possible, to allow each national and international insurer and reinsurer to participate in the marketing of the product by committing its own capacity in confidence. It is recommended that an appropriate balance be achieved between local and international insurers in the commitment of their capacity, so that the financial capacity of domestic insurers is not threatened in the event of a large-scale loss.

This configuration requires the recognition of index insurance by the IRCSL under the RIIA, which has been provided in the past⁵⁴. Our project team will be able to assist the IRCSL in this process if necessary.

As regards a hybrid-flood insurance (part indemnity and part parametric), according to the survey result, the insurance industry in Sri Lanka has indicated that, although it appears to be the better solution to flood risks in Sri Lanka, it could be a complicated process which would require the collaboration between industry members and a joint mechanism created by the IRCSL and IASL.

6.2. Investigation on the potential partners/stakeholders

There are several potential stakeholders from the public sector that can contribute to this study to add value to the final product development. Disaster Management Centre, Department of Meteorology and Department of Irrigation were considered as key potential stakeholders at this stage of the study. The discussions were carried out as small, closed group interviews both

⁵⁴ ICRSL Statistical Review, 2020

physically and virtually with senior officials of each institute. This section aims to encapsulate the key insights derived from the discussions conducted separately with the said stakeholders. This section also includes possible areas for collaboration with the project going forward.

6.2.1 Disaster Management Centre (DMC)

DMC can be regarded as a key stakeholder in this project. The recent interview with the Director General of DMC inveterate the availability of data regarding flood losses suffered by SMEs from districts reflected in the project. This available data will be supportive in understanding the number of SMEs affected due to floods, observing the trend of losses historically and validating the flood risk modelling against actual data. Therefore, this data will be of value to the project not only at this level of feasibility study but also at the stage of modelling flood risk and designing an insurance product. The data available can place a foundation to understand the claim values and to cross check SMEs over the given period of time to understand how prone they are to flood risks. The National Disaster Relief Center affiliated to DMC is involved in evaluating and providing compensation to those who are affected which involves both individuals and SMEs. For example, as per the discussion, it was reported that 27 SMEs from Rathnapura and Trincomalee districts were affected due to floods during the months of May and June 2022. Furthermore, DMC has employed a conceptual and methodological tool named “Disinventar http://www.desinventar.lk/des_html/About-us/about_us.html”⁵⁵ for the implementation of National Disaster Observatories and for the creation of databases related to damage, losses and effects of disasters. Tools as such could be considered as sources of information and data for the project, which will be very useful for analysing. DMC was willing to provide free access to this tool to the project team.

6.2.2 Meteorology Department

The recent interview the project team had with the Deputy General Manager from the Forecasting Division of the Meteorology Department opened many supporting avenues for the feasibility study and the project going forward. There are plans to expand weather stations island wide with World Bank assistance to obtain accurate weather information. In addition, the Meteorology Department also receives satellite derived rainfall information to communicate predictions to the general public. With the extension of the rain gauge network supplemented by the satellite derived information system, it is expected to provide data for

⁵⁵ [Disaster Information Management system in Sri Lanka \(desinventar.lk\)](http://www.desinventar.lk)

targeted resolutions at a local level. However, the currently available gridded rainfall data covers a zone of 5 Km resolution.

Climate Resilience Multi Phased Programmatic Approach (CRes MPA)⁵⁶ is a program that is initiated with the objective of protecting people and property against flood risk in priority river basins. This is a World Bank funded project aimed to support the Government's commitment and strategy of mitigation of flood risk and enhancing resilience in prioritized river basins. The program will be implemented in three Phases over a period of eight years (2019 - 2026)⁵⁷ as follows:

Phase I: Flood Early Warning & Lower Kelani Flood Risk Mitigation Project (US\$310 million);

Phase II: Kelani Basin Flood Risk Mitigation Project (US\$169 million); and

Phase III: Mundeni Basin Flood Risk Mitigation & Reservoir Project (US\$295 million).

However, with the current economic crisis of Sri Lanka, the implementation of the program could be delayed due to the repurposing of World Bank funds for the Government to utilize in meeting urgent humanitarian needs.

Another program that was suggested by the discussant to collaborate was the South Asia Flash Flood Guidance System (SAsiaFFGS) which is initiated by the World Meteorological Organization. This system acts as a mechanism to provide improved rainfall data and early warning of flash floods. India Meteorological Department (IMD) acts as the regional centre for Sri Lanka to provide forecast products, data and training. The collaboration with the SAsiaFFGS will be an added value to the project going forward.

An impact-based forecasting system is expected to be established in the future. According to the discussant, this is a system that is very similar to Geographic Information System (GIS) and is targeted for Rathnapura and Kalutara Districts for the time being. The discussant also shared information regarding an ongoing system development by a University in the United Kingdom. This system plans to integrate every aspect (For example: data on population and building layout) regarding early warning of floods and landslides which enable this system to

⁵⁶ <https://documents1.worldbank.org/curated/zh/265621551362415419/pdf/CRes-MPA-Resettlement-Action-Plan-Feb-2019.pdf>

⁵⁷ <https://projects.worldbank.org/en/projects-operations/project-detail/P160005?lang=en>

disseminate detailed information to the relevant authorities and general public. Contact points of the leads of this system are shared by the discussant for the team to consult.

Further, the discussion also highlighted the importance of The Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES) as another possible source to gather information and to collaborate in this project. RIMES is currently developing a system to ensure communication of regional early warning information specifically targeted to Rathnapura and Kalutara districts and is expected to expand further depending on the success rate. As per the discussant, this system includes information on MSMEs as well which aligns with the project undertaken.

6.2.3 Department of Irrigation

Director General of the Hydrology Unit of the Irrigation Department was consulted on the possible role of the Department of Irrigation in an initiative or financial products aimed at MSMEs.

The discussant specified three categories of floods in Sri Lanka, (1) river induced floods which are also known as fluvial floods, (2) locally driven floods or urban floods that are caused by water blocks in the canal drainage in main urban areas and lastly (3) reservoir related floods. Among these three categories, the Department of Irrigation is only obliged to play a role in monitoring river floods/fluvial floods. There are 103 river basins in Sri Lanka, out of which 25 basins are vulnerable for floods. Approximately 2/3 of the total land area is covered by these 25 major river basins. The Irrigation Department only monitors 24 river basins which covers all the major rivers in the country. The discussant stressed that resources are not sufficient to monitor all the river basins in the country. For example, there are floods observed in Jaffna even without a river located in the area, these are not monitored by the Irrigation department as it has no capacity to monitor. There is scope for development in terms of monitoring systems, human and technical capacities. Inadequate funds are the main concern to improve these. However, a comprehensive monitoring system is in place to monitor major rivers such as Kelani and Kalu rivers. The department has identified different locations of the river stretch that has high probability of river floods which covers low lying areas mostly. Rivers are monitored on 24/7 basis from different locations covering these identified specific locations but the whole river stream stretch is not monitored given the limitations. Voluntary monitoring

systems are also in place for certain stations however these cannot be assured on a continuous basis.

The Irrigation Department website provides Real Time Water Level⁵⁸ information and a GIS Dashboard⁵⁹ of river gauging stations. Real Time Water Level dashboard also reveals information on flood alerts. It was explained that out of 24 river basins which are being monitored, flood warning alerts are issued only for 16 river basins covering the major stations that has high exposure to river floods. When water level has reached alert levels, the officials in the Department further engage in an analysis to issue a warning to the general public. The lead time for issuing warnings depends on the location. This is mainly due to the reason that flood warnings are issued only based on observed rainfall data but not predicted rainfall data. The respondent further stated that rainfall predictions in Sri Lanka are not meeting global standards and very precise predictions are not produced. Hence, they cannot be considered as a deciding factor for early warning issuances. A system is also in place to notify the public 3 days prior to a possible increase in water levels before issuing flood warnings. This allows organizations like Disaster Management Centres to make arrangements and to better prepare for floods. Flood early warnings to Colombo can be issued approximately 16 hours prior as there is a reasonable time gap between the floods to occur in Colombo area with the rainfall quantity in the upstream areas of the country. Email mode is stated to be the primary and initial method of disseminating flood warnings by the Irrigation Department. However, only 1000 recipients are registered with this email system to receive flood warning alerts through emails. These are then further disseminated by some NGOs and various informal groups. The discussant requested our support in reaching more recipients to enhance flood preparedness in the country. It was also highlighted that MSMEs targeted in the project in Colombo, Kalutara and Rathnapura districts can be registered in the email warning system. However, in addition to the above there are many other flood warning issuing methods followed by various other organizations. The Disaster Emergency Warning Network (DEWN) is a mobile application introduced by a private organization to disseminate weather alerts to the general public. This system also acts as a mechanism for the DMC to connect with other stakeholders to minimize the damage. In addition, MOBISense is another modern application produced jointly by few organizations together to dispatch early warning messages during natural hazards. This application has the ability to issue hazard information of a specific location required by the

⁵⁸ [Realtime Water Level in Major River \(arcgis.com\)](http://arcgis.com)

⁵⁹ [Irrigation Department \(arcgis.com\)](http://arcgis.com)

user and further has a unique feature to upload any local event when such information is required. Likewise, various applications, tools and modes are used by several organizations, both private and public to dispatch early warnings to the general public as well as for businesses.

The Department of Irrigation maintains a very comprehensive database in terms of river flooding. However, the discussant stated that the format of these databases is different and uses a technical hydrological language. Minor or Major flood levels are different from one location to another. Hence, there is a different criterion for each river gauge accordingly. Understanding this data base information will require some level of technical knowledge on reading flood level criteria. A historical archive of river gauge data could help to validate the flood risk work, using analysis of past events to assess basis risk of the proposed method. The systems in the Department allow to check areas that are affected by floods but do not cover the exact affected number of people and businesses. Furthermore, flood maps are under development stage and currently maps are developed pertaining to 12 river basins. The maps are developed based on historical and ground level extracted data. These maps cover the three districts; Colombo, Kalutara and Rathnapura considered in the study and will be beneficial for the project going forward. The discussant expressed their willingness to share these high-resolution Maps on request. However, GIS formats are not sharable according to the organization policies.

6.3. Explanation on why the proposed insurance approach is preferable to other disaster risk financing measures such as contingency budgets and disaster risk funds

Insurance is the most relevant mechanism for MSMEs in Sri Lanka for three main reasons:

1. First, due to its current political-economic situation, the Sri Lankan government is currently unable to finance large-scale flood risk reduction measures that could benefit MSMEs. Whilst insurance is not a substitute for risk reduction measures and is complementary to such measures, in the absence of government led risk reduction and risk transfer initiatives, the MSMEs could therefore take charge of their own risk management.
2. Secondly, insurance allows the MSMEs concerned to avoid setting up a contingency budget, which would burden their cash flow and be insufficient to compensate for losses during a major flood. The pooling of an inter-company contingency fund seems difficult

to envisage because of the operational challenges of coordination during its implementation and the risk of free riding behaviours.

3. Finally, the establishment of a national-level contingency budget also seems unlikely – unless it is drastically under-resourced – given Sri Lanka's current financial difficulties.

The advantages and challenges of parametric insurance and traditional indemnity insurance have already been discussed in Section 6.1 of this Report. To reiterate, Index-based insurance schemes (parametric insurance) have major advantages over the traditional contracts (indemnity insurance):

1. Reinsurance / access to additional capital is easier with index-based insurance;
2. Transaction costs are reduced because losses do not need to be assessed. The design of the platform aggregating satellite data is a fixed cost that we're hoping to have covered by the ISF and the project team. The monitoring of the weather parameters is also close to a fixed cost as it does not vary in proportion to the number of people insured (given that it is the same data source which needs to be monitored and that the monitoring process can be partially or fully automated). This implies that: (a) contrary to loss assessment costs, these costs would not be borne by the insured only (most of them would actually be paid for before the launch of the program), which would make premiums more affordable, and (b) If the product is successfully scaled up, these fixed costs would represent a very limited sum per insured, so would be worth the initial investment from donor's and industry's viewpoints;
3. Individuals are still encouraged to take preventive measures because the pay-out does not depend on the losses or the actions taken to reduce risks (in other words, there is no moral hazard attached to index-based insurance). The incentive to reduce risks could be introduced even with parametric insurance through complementary awareness programmes regarding risk reduction and adaptation, which would potentially reduce the premium; and
4. The payment decision is simple and objective, making it easier to enforce contracts⁶⁰ and make payouts quicker. The pre-agreed thresholds for insurance trigger would rely on public data sources, which are traditionally not subject to negotiation or

⁶⁰ World Bank, 2017.

approximation. As soon as the weather parameter is reached, the calculation agent (who will be agreed upon before contract signature) will check the data and calculate the pay-out to be sent, which can occur in a matter of day

In contrast, it has also been noted previously in this Report (Section 6.1) that one of the significant advantages of traditional indemnity insurance is that the pay-out is based on actual assessed losses, which could be substantially higher when compared with the contracted amount that parametric insurance pays out. However, the survey has also highlighted the low levels of trust that MSMEs hold in traditional indemnity insurance.

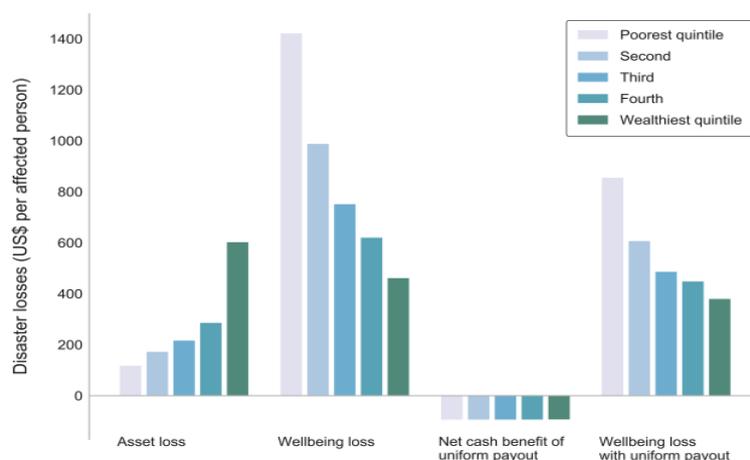
It is important therefore to take cognizance of the majority view of the MSMEs interviewed during the Vanguard Services survey, which favour a hybrid version of insurance involving both parametric and indemnity, based on their past experiences with insurance companies.

In the case of a hybrid insurance solution, the indemnity element of the insurance solution will increase the amount of funds available after a flood or typhoon for the businesses covered while the parametric element makes funds available quickly. This will improve the livelihood conditions of poor and vulnerable households (“wellbeing”) that are involved in MSMEs, enabling a quicker, more sustained disaster recovery, with lower impact on their personal finances. Furthermore, the risk transfer will alleviate the dependence on ex-post budgetary allocations by the government of Sri Lanka to manage the impacts of disasters affecting MSMEs. The access to alternative financial resources will pave the way for an efficient and timely management of the risks by MSMEs.

In addition to the traditional three elements of risk analysis - hazard, exposure and vulnerability - the World Bank has suggested a fourth element of well-being. Wellbeing-focused strategies can utilize a wider set of available measures, such as financial inclusion, private and public insurance, disaster-responsive social safety nets, macro-fiscal policies, and disaster preparedness and contingent planning. Even if they do not reduce asset losses, these types of measures can bolster communities’ socioeconomic resilience, or their capacity to cope with and recover from asset losses when they occur, reducing the wellbeing impact of natural disasters⁶¹.

⁶¹ Walsh, B., Hallegatte, S., 2019.

Figure 6.3: Cost-benefit analysis of uniform payout to all affected individuals in response to a 50-year precipitation flooding event in Rathnapura



Source: *Socioeconomic Resilience in Sri Lanka Natural Disaster Poverty and Wellbeing Impact Assessment*, Brian Walsh Stephane Hallegatte, World Bank, Climate Change Group, September 2019

Figure 6.3 shows that while the richest households are expected to lose more assets, the poorest households are expected to suffer the greatest wellbeing losses. The figure also shows how small, uniform, lump sum post-disaster support delivered with perfect targeting to all affected households (“uniform pay-out”) could theoretically reduce wellbeing losses, especially for the poorest households. The first quintile sees its wellbeing losses reduced by around a third, while impact is small on the richest quintile.

Parametric flood risk insurance, which involves a uniform pay-out to all policyholders as explained in Section 6.1 of this Report, will support MSMEs’ financial resilience against flood risks by accelerating recovery and reconstruction, helping these businesses mitigate the consequences of shocks from natural disasters, and enhance their capacity to cope with and recover from asset losses when they occur. Non-financial mechanisms for climate adaptation and climate resilience include structural and non-structural flood risk reduction and resilience. Integrated flood risk management (IFRM) plans incorporate a suite of measures to build flood resilience and mitigate the impacts of flooding. Many of these measures rely on a river catchment scale evaluation of flood risk, based on high resolution flood mapping using hydrological and hydraulic modelling and in situ measurements. Using information on population, assets and infrastructure, GIS analysis or sophisticated modelling can build on the flood mapping to identify areas likely to create the highest levels of impacts from flooding and target measures appropriate to gain the most benefit from investments. Traditional flood

protection has often relied on building physical flood defences to constrain rivers to designed channels. Designing and building flood defences can be a lengthy and expensive process of design, analysis, approval and construction. Even when implemented, flood defences are no guarantee of total protection. Community engagement, on the basis of shared flood risk information, is also being used widely to promote awareness, education and action around flood preparedness and resilience. By informing individuals and communities about the specific risks from flooding in their local area, actions can be taken to limit impacts. Communities can be provided with warnings to take action before flooding occurs, communicated through local flood wardens. Assets such as valuable property and vehicles can be protected or relocated to avoid the worst impacts of the flooding. Resilience measures can be implemented so that properties are protected from flooding and where flooding still occurs the damage causes or reduced, leading to quicker recovery. For example, raising equipment used by MSMEs off the ground to avoid damage from shallow flooding.

By building back better, resilience measures can be put in place following a flood event, when the recovery process is underway. Some of these measures are relatively low cost and simple, others are more expensive and take longer to implement. It has been shown that building back better can reduce disaster-related well-being losses by 59%⁶².

Disseminating information to communities to build awareness of flood risk and the actions that can be taken to reduce impacts is a lengthy process of education and knowledge sharing. Often, expert knowledge will be required to identify the most appropriate measures to implement in a particular situation, resulting in increased costs.

⁶² Hallegate, S., Rentschler, J., Walsh, B., 2018

7. Recommendations

Building on the foregoing information and analyses, this feasibility study puts forward three key sets of recommendations that will guide further development of the concept note and proposal for an intervention to help build flood risk resilience among MSMEs, through the use of innovative and targeted insurance products. These recommendations include:

1. From the analysis of synergies with other adaptation and mitigation projects existing in Sri Lanka, it is recommended that potential initiatives aimed at the provision of accessible and affordable insurance packages for MSMEs seek appropriate linkages with those institutions and partners (including development partners and Government agencies) already active in providing support to MSMEs for enhancing resilience to flood risk. Moreover, in the absence of a centralized organization for providing general MSME financing in Sri Lanka, any schemes aimed at providing financing solutions for MSMEs should identify and partner with a relevant focal organization or consortium from the public and private sector to support and advocate for the institutionalization of efficient disaster recovery mechanisms to support MSMEs in the country. Furthermore, active engagement with potential stakeholders in accessing required data and in providing localized support for the proposed intervention is highly recommended.
2. As it relates to demand and MSMEs' willingness to pay the necessary insurance premiums, it is recommended that appropriate measures be considered and put in place, to ensure that the micro level segment of MSMEs is reached when offering insurance packages, as this segment has the least insurance penetration in the Sri Lankan market. Additionally, partnering insurance companies should be fully capable and willing to cover MSMEs that are located in flood prone areas, as declared by the government authorities, since these are the most "at risk" businesses and therefore, the most in need of solutions. This may require MSMEs in high flood risk areas putting in place risk reductions measures, thus making them more insurable (allowing them to get better rates from insurers). Additionally, the most at risk MSMEs may need to blend risk financing instruments (i.e., insurance, savings, loans) to improve their chances of recovering quickly from frequent disaster events.

There is also a need for employing measures aimed at building greater trust towards insurance companies and the new products being presented as solutions for building greater resilience to flooding. This can be achieved through the implementation of awareness building campaigns to improve the awareness and understanding of MSMEs on all aspects of insurance, with special reference to the product(s) being offered (with quick assistance mechanisms), to help increase the uptake of insurance among MSMEs.

3. With reference to the analysis of potential risk transfer solutions, it is highlighted that parametric insurance solutions do not involve loss assessment and will provide rapid, and uniform payment to all contracted businesses upon activation of the trigger. To limit basis risk, it is proposed to group MSMEs by granular geographical area and to offer common trigger thresholds. Through a flood risk analysis, it is possible to check whether each MSME located in the area in question has actually suffered a flood. Thus, if the trigger is activated for a dedicated area, all insured businesses located in that area will be eligible for payment without having to apply for it. In the event that demand is high for a hybrid insurance solution, then an indemnity element could be introduced, although this portion would take longer for claims payment since there will be an element of loss assessment involved.

Appendices

Appendix 1: Sri Lanka Insurance Industry – Insurance Companies & General Insurance Business

Premium Income & Penetration

	2015	2016	2017	2018 (a)	2019 (b)
Premium Income - Long Term Insurance Business (LKR millions)	53,691	63,477	71,571	80,294	88,781
Growth Rate in Premium Income - Long Term Insurance Business (%)	20.39	18.23	12.75	12.19	10.57
Premium Income - General Insurance Business (LKR millions)	69,271	79,590	93,389	100,586	107,732
Growth Rate in Premium Income - General Insurance Business (%)	13.18	14.90	17.34	7.71	7.10
Total Premium Income - Insurance Business (LKR millions)	122,962	143,067	164,960	180,880	196,513
Growth Rate in Total Premium Income - Insurance Business (%)	16.22	16.35	15.30	9.65	8.64
Reinsurance Premium Income (LKR millions)**	1,738	2,397	3,683	4,056	4,174
Gross Domestic Product at Current Market Price (LKR billions)*	10,951	11,996	13,328	14,366	15,016
GDP Growth Rate % *	5.00	4.50	3.60	3.30	2.30
Penetration % (Total Premium of Insurance Business as a % of GDP)	1.12	1.19	1.24	1.26	1.31
Penetration % (Premium of Long Term Insurance Business as a % of GDP)	0.49	0.53	0.54	0.56	0.59
Penetration % (Premium of General Insurance Business as a % of GDP)	0.63	0.66	0.70	0.70	0.72
Insurance Density - (Total Premium Income - Insurance Business/ Population) LKR	5,864	6,747	7,693	8,347	9,013
Population '000 (Mid Year) *	20,970	21,203	21,444	21,670	21,803

* Source: Central Bank of Sri Lanka and Department of Census and Statistics. Gross Domestic Product at current market price has updated from 2015 onwards based on the Annual Report of Central Bank of Sri Lanka 2019.

** Reinsurance premium income represents the compulsory cession of reinsurance premiums of General Insurance Business ceded to NITF.

Class-wise Analysis of Gross Written Premium - General Insurance Business

Class	Gross Written Premium (LKR '000)				
	2015	2016	2017	2018 (a)	2019 (b)
Fire	6,604,074	7,479,910	8,597,489	8,821,655	8,270,010
Marine	1,996,862	2,086,394	2,191,654	2,403,366	2,385,567
Motor	42,622,205	49,333,000	56,047,640	62,363,476	63,732,958
Health	8,534,364	10,036,518	14,649,440	14,161,542	16,578,713
Miscellaneous	6,495,454	7,120,742	7,866,260	8,254,421	10,457,778
Sub Total	66,252,959	76,056,564	89,352,484	96,004,460	101,425,025
SRCC & T	3,018,421	3,533,324	4,036,283	4,581,641	6,307,350
Total	69,271,380	79,589,888	93,388,766	100,586,101	107,732,375

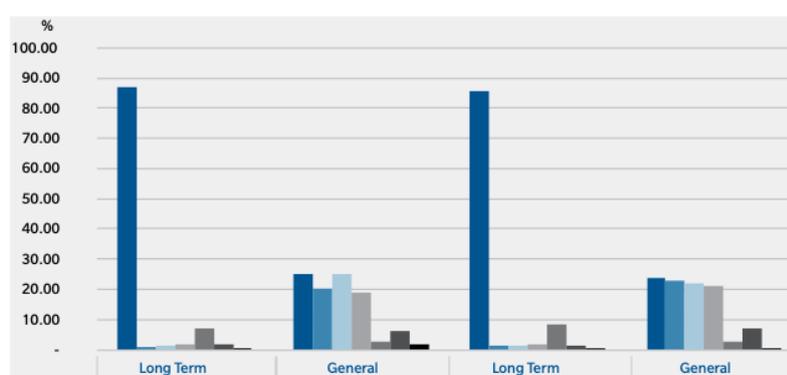
Class	Growth (%)				
	2015	2016	2017	2018 (a)	2019 (b)
Fire	3.95	13.26	14.94	2.61	(6.25)
Marine	4.44	4.48	5.05	9.66	(0.74)
Motor	19.10	15.74	13.61	11.27	2.20
Health	12.39	17.60	45.96	(3.33)	17.07
Miscellaneous	(3.37)	9.63	10.47	4.93	26.69
Sub Total	13.51	14.80	17.48	7.44	5.65
SRCC & T	6.46	17.06	14.23	13.51	37.67
Total	13.18	14.90	17.34	7.71	7.10

Class	Percentage Share (%)				
	2015	2016	2017	2018 (a)	2019 (b)
Fire	9.53	9.40	9.21	8.77	7.68
Marine	2.88	2.62	2.35	2.39	2.21
Motor	61.53	61.98	60.02	62.00	59.16
Health	12.32	12.61	15.69	14.08	15.39
Miscellaneous	9.38	8.95	8.42	8.21	9.71
Sub Total	95.64	95.56	95.68	95.45	94.15
SRCC & T	4.36	4.44	4.32	4.55	5.85
Total	100	100	100	100	100

Category - wise Analysis of GWP of Miscellaneous Insurance premium for 2018 & 2019

Category	GWP LKR '000	
	2018 (a)	2019 (b)
Title	488,362	399,180
Personal Accident	1,673,887	1,694,374
Contractors' All Risk	467,916	1,140,043
Professional Indemnity	334,698	441,897
Travel Insurance	532,025	477,130
Fidelity Guarantee	117,853	92,779
Burglary	395,880	401,421
Cash in transit including cash in safe	436,850	433,592
Goods in Transits	125,159	115,912
Products Liability	148,401	167,535
Public Liability	450,273	535,243
Bankers' Indemnity	397,674	413,313
Air Craft Hull	1,061,979	1,616,254
WCI	709,476	696,591
National Natural Disaster Insurance Scheme	500,000	1,500,000
Others	902,693	1,102,389
Subtotal	8,743,127	11,227,652
Less: Total of SRCC & T due to NITF	(460,879)	(711,516)
Coinsurance Premium	(27,827)	(58,360)
Total	8,254,421	10,457,776

Distribution Channels of Insurance Companies



	2018		2019	
Agents	86.94	25.01	85.72	23.69
Brokers	1.01	20.02	1.30	22.81
Exclusive Sales Force Except Agents	1.13	25.24	1.26	22.15
Direct	1.80	18.93	1.92	21.07
Bancassurance	7.14	2.65	8.18	2.79
Related/Group Companies	1.74	6.17	1.41	6.85
Others	0.24	1.98	0.21	0.64

Note: 2018 published percentages have been revised due to classification changes done in this year.

Appendix 2: Circular 1 of 2021 issued by IRCSL, dated 23 March 2021 (Clearance of insurance products prior to launch)



INSURANCE
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SRI LANKA

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இலங்கை காப்புறுதி ஒழுங்குமுறைப்படுத்தல் ஆணைக்குழு
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REGULATION OF INSURANCE INDUSTRY ACT - CIRCULAR

23rd March 2021

No. 01 of 2021

Clearance of insurance products prior to launch

(A) The Insurance Regulatory Commission of Sri Lanka (IRCSL), at its 205th meeting, having considered the requirements stipulated in section 37 (1) & (2) of the Regulation of Insurance Act, No. 43 of 2000 i.e.

37(1) For the purpose of examining whether the interests of policy holders are being adequately safeguarded every insurer shall be required to file with the Commission; -

- (a) all policy forms to be issued by such insurer, prior to its issue;
- (b) any amendments to be made to any policy forms already issued; and
- (c) where required to do so by a notice in writing, copies of any policy forms already issued.

37(2) The Commission may having regard to the need to ensure that the terms of the contract of insurance covered by such policy form are fair and equitable, direct amendments to any policy form furnished to the Commission under subsection (1), and it shall be the duty of the insurer furnishing such forms to give effect to such amendments.

has decided to inform all insurance companies that they could launch products/policy forms as referred to in section 37(1) only after the IRCSL confirms that products/policy forms are in the opinion of the IRCSL fair and equitable.

(B) The said requirement applies to Long Term and General Insurance products.

(C) All insurance companies are required to keep the IRCSL informed of the proposed date of launch of insurance products as referred to in section 37(1);

(D) General Insurance Products

All General insurance companies are required to submit documents in relation to its insurance products (policy documents, proposal forms, advertising materials, etc.) at least 30 days prior to the proposed date of launch;

(E) Long-Term Insurance Products

(1) All Long-Term insurance companies are required to submit the following documents in relation to its insurance products at least 45 days prior to the proposed date of launch:

Appendix 3: Building Businesses' Climate Resilience (BBCR) Report on Baseline Mapping Exercise, 2019



**BUILDING BUSINESSES' CLIMATE RESILIENCE
(BBCR)**

Report on Baseline Mapping Exercise

**PROJECT FOR INNOVATIVE
CLIMATE DECISION TOOLS
FOR ENHANCING SME
RESILIENCE
IN SRI LANKA**

FUNDED BY



PROJECT PARTNERS



Appendix 4: Survey Report on Understanding the need for an Affordable Insurance Solution for Micro, Small & Medium Enterprises Covering Flood Disaster Damage in Sri Lanka, 2022



Appendix 4: Survey Report

Bibliography

ADPC (2019). Taking Enterprises Forward- Business Continuity Management Training in Sri Lanka. <https://app.adpc.net/news/taking-enterprises-forward-business-continuity-management-training-in-sri-lanka/>

ADPC (2021). About APP. <https://app.adpc.net/about-app/>

ADPC (2021). APP - Sri Lanka. <https://app.adpc.net/sri-lanka/>

Asian Development Bank (2017). Sri Lanka: Small and Medium-Sized Enterprises Line of Credit Project. <https://www.adb.org/sites/default/files/project-documents/49273/49273-001-tacr-en.pdf>

Asian Development Bank (2019). The Enabling Environment for Disaster Risk Financing in Sri Lanka - Country Diagnostics Assessment. <https://www.adb.org/sites/default/files/publication/487971/sri-lanka-environment-disaster-risk-financing.pdf>

Asian Development Bank (2020) Small and Medium-Sized Enterprises Line of Credit Project. <https://www.adb.org/sites/default/files/linked-documents/49273-004-spp.pdf>

Association of Development Financing Institutions in Asia and the Pacific (2015). Enabling SME access to finance for sustainable consumption and production in Asia - An overview of finance trends and barriers in Sri Lanka and the Philippines. https://www.switch-asia.eu/site/assets/files/1228/switch-asia_and_adfiap_study_green_finance.pdf

Bello O., Bustamante A. and Pizarro P., (2021) “Planning for disaster risk reduction within the framework of the 2030 Agenda for Sustainable Development”, Project Documents (LC/TS.2020/108), Santiago, Economic Commission for Latin America and the Caribbean. https://repositorio.cepal.org/bitstream/handle/11362/46639/1/S2000452_en.pdf

Central Bank of Sri Lanka (2020). Annual Report 2019. <https://www.cbsl.gov.lk/en/publications/economic-and-financial-reports/annual-reports/annual-report-2019>

Central Bank of Sri Lanka (2020a). Sri Lanka Socio Economic Data 2020.

Center for Excellence in Disaster Management & Humanitarian Assistance (2021). Sri Lanka Disaster Management Reference Handbook. <https://reliefweb.int/attachments/b2334881-957b-312f-b14e-7236c004957a/CFE-DM-DMRH-SriLanka2021.pdf>

Chatterjee, R., & Shaw, R. (2015). Role of regional organizations for enhancing private sector involvement in Disaster Risk Reduction in developing Asia. In: Izumi T., Shaw R. (Eds.) Disaster Management and Private Sectors. Disaster Risk Reduction (Methods, Approaches and Practices). Springer, Tokyo. https://10.1007/978-4-431-55414-1_4

Connecting Business Initiative (2022). Asia-Pacific Alliance for Disaster Management Sri Lanka. <https://www.connectingbusiness.org/ourwork/sri-lanka>

Department of Census and Statistics, 2013/2014. Non-Agricultural Economic Activities In Sri Lanka Economic Census. <http://www.statistics.gov.lk/Economic/Non%20agri.pdf>

Disaster Management Center Sri Lanka (2018). <https://www.connectingbusiness.org/system/files/2018-11/Mainstreaming%20Disaster%20Risk%20Reduction%20%28DRR%29%20to%20the%20Private%20Sector%20for%20Sustainable%20Development.pdf>

European Union (2016) Sri Lanka Post-Disaster Needs Assessment - May 2016 Floods and Landslides. https://fpi.ec.europa.eu/system/files/2021-05/pdna_sri_lanka_2016_report_0.pdf

Fernando, N., Jayasinghe, N., Amaratunga, D., Haigh, R., Siriwardana, C., Herath, H., Ranaweera, P. U. A., & Jayaweera, S. (2021) Settling the Ripples: An examination of Sri Lanka's approach to addressing cascading impacts of the COVID-19 pandemic. In: R. Senaratne, D. Amaratunga, S. Mendis & P. Athukorala (Eds.) COVID 19: Impact, Mitigation, Opportunities and Building Resilience: From Adversity to Serendipity. vol. 1. National Science Foundation of Sri Lanka.

GiZ (2020). Assessment of the Institutional and Regulatory Framework relating to the SME Sector in Sri Lanka.

Gunawardana, D.P. (2020). The Impact of COVID19 on the MSME Sector in Sri Lanka.

Hallegatte, S., Rentschler J., Walsh, B. (2018). Building back better: achieving resilience through stronger, faster, and more inclusive post-disaster reconstruction. World Bank Group.

<http://documents.worldbank.org/curated/en/420321528985115831/Building-back-better-achieving-resilience-through-stronger-faster-and-more-inclusive-post-disaster-reconstruction>

Hettiarachchi, S. S. L., and S. Weeresinghe. (2014). "Achieving disaster resilience through the Sri Lankan early warning system: Good Practises of Disaster Risk Reduction and Management." *Procedia Economics and Finance* 18 (2014): 789-794. [https://doi.org/10.1016/S2212-5671\(14\)01003-X](https://doi.org/10.1016/S2212-5671(14)01003-X)

Horton, J. B. (2018). Parametric Insurance as an Alternative to Liability for Compensating Climate Harms. *Carbon & Climate Law Review*, 12(4), 285–296. <https://www.jstor.org/stable/26554652>

IFC (2012). IFC, SANASA Insurance Pilot Weather Index Insurance for Sri Lankan Farmers <https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=21590>

ILO (2018a). ILO Boosts Disaster Resilience of Micro, Small and Medium Enterprises in Sri Lanka. https://www.ilo.org/colombo/info/pub/pr/WCMS_656737/lang--en/index.htm

ILO (2018b). Strengthening natural disaster resilience of rural communities and micro and small enterprises in the North and Southwest of Sri Lanka.

https://www.ilo.org/colombo/whatwedo/projects/WCMS_615612/lang--en/index.htm

ILO (2019). Business Continuity Plan: Disaster Mitigation and Building Resilience - Basic Guidelines for Preparation of Business Continuity Plan (BCP) for MSMEs.

https://www.ilo.org/colombo/whatwedo/publications/WCMS_714400/lang--en/index.htm

ILO (2020). Mainstreaming Disaster Resilience: Identifying Opportunities in National Policies and

International Finance Corporation (2016).

https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/we-have-agreement-paris-so-what-s-next-private-sector

Legal Framework in relation to Rural Development https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---ilo-colombo/documents/publication/wcms_735671.pdf

Ministry of Disaster Management (2014). Sri Lanka Comprehensive Disaster Management Programme 2014-2018. <http://www.disastermin.gov.lk/web/images/pdf/slcdmp%20english.pdf>

Ministry of Disaster Management, Ministry of National Policy and Economic Affairs, in collaboration with the United Nations, World Bank and European Union (2017). Sri Lanka Rapid Post Disaster Needs Assessment Floods and Landslides.

<https://www.lk.undp.org/content/dam/srilanka/docs/localpublications/PDNA%20Sri%20lanka%202017-1.pdf>

Ministry of National Policies and Economic Affairs and Ministry of Disaster Management (2017). Post-Disaster Recovery Plan Sri Lanka Floods and Landslides May 2017.

<https://www.gfdrr.org/sites/default/files/publication/Sri%20lanka%20Recovery%20plan.pdf>

UNDP (2013). Small Businesses: Impact of Disasters and Building Resilience.

https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/Disaster%20Resilience/Small_Businesses_Impact_of_Disasters_and_Building_Resilience.PDF

UNDP (2021). <https://www.undp.org/partners/private-sector>

UNDP (2022). Early action and early warnings save lives. <https://www.undp.org/srilanka/stories/early-action-and-early-warnings-save-lives>

UNDP Sri Lanka (2020). Beyond Recovery: Towards 2030.

<https://www.lk.undp.org/content/srilanka/en/home/coronavirus/support-to-national-response.html>

UNDRR (2019). Disaster Risk Reduction in Sri Lanka: Status Report 2019.

UNDRR (2019). Private Sector. United Nations Office for Disaster Risk Reduction.

<https://www.undrr.org/implementing-sendai-framework/partners-and-stakeholders/partnerships-private-sector>

UNDRR (2020). Business Resilience in the face of COVID-19. https://reliefweb.int/attachments/467b23fa-7a87-382a-b932-294f70558e82/Private%20Sector%20COVID19%20Brief_15May2020_FINAL.pdf

UNDRR ARISE (2022). About ARISE. <https://www.ariseglobalnetwork.org/explore/about>

UNEP DTU Partnership (2018). Building Business Climate Resilient.

<https://unepdtu.org/project/innovative-decision-support-tools-for-building-business-resilience-to-climate-change-in-sri-lanka/>

UNEP DTU Partnership (2019). Building Businesses Climate Resilience (BBCR). Report on Baseline

Mapping Exercise. <https://unepdtu.org/wp-content/uploads/2018/12/final-baseline-report-bbcr-project.pdf>

Walsh, B., Hallegatte, S. (2019). Socioeconomic Resilience in Sri Lanka: Natural Disaster Poverty and Wellbeing Impact Assessment. Policy Research Working Paper; No. 9015.

<https://openknowledge.worldbank.org/handle/10986/32423>

World Bank (2012). Market study of insurance demand with MSMEs in Sri Lanka, carried out by PWC on behalf of IFC and the World Bank.

World Bank (2016). Fiscal Disaster Risk Assessment and Risk Financing Options – Sri Lanka.

<https://documents1.worldbank.org/curated/en/430141467229470955/pdf/106715-WP-P147454-OUO-9-SRI-LANKA-D4web.pdf>

World Bank (2017). Unbreakable – Building Resilience of the Poor in the face of Natural Disasters.

World Bank (2020). Contingent Liabilities from Natural Disasters: Sri Lanka.

<https://www.alnap.org/system/files/content/resource/files/main/Contingent-Liabilities-from-Natural-Disasters-Sri-Lanka.pdf>

World Bank (2020a). Lessons Learned: The Philippine Parametric Catastrophe Risk Insurance Program Pilot.

World Bank (2022). Climate Knowledge Portal – Sri Lanka country profile.

<https://climateknowledgeportal.worldbank.org/country/sri-lanka/vulnerability>