

# **Completion Report**

# "Innovative climate decision-support tools for enhancing SME resilience in Sri Lanka, Sri Lanka, NCF7", NCF-C7-102

**Grantee:** UNEP DTU Partnership (UDP)

**Local Partner(s):** Asian Disaster Preparedness Centre,

The Ceylon Chamber of Commerce,

**MPEnsystems** 

Project start date: 15/09/2018

Project end date: 31/12/2021

08/06/2022	
Date	Person responsible (Signature)
[e-mail address]	[Name of the person responsible] (in block letters)
[Contact telephone number]	[Title]

# **TABLE OF CONTENTS**

1.		EXECUTIVE SUMMARY 3			
2.		ACHIEVEMENT OF RESULTS			
	2.1	Achievement of outcomes and outputs6			
	2.2	Deviations from the planned outputs and activities9			
	2.3	Achievement of NCF indicators9			
3.		CLIMATE CHANGE			
4.		DEVELOPMENT IMPACTS AND CROSS-CUTTING ISSUES 12			
5.		ASSESSMENT OF THE RESULTS AND IMPACTS OF THE PROJECT 13			
	5.1	Relevance			
	5.2	Effectiveness			
	5.3	Efficiency			
	5.4	Impact15			
	5.5	Sustainability			
	5.6	Coherence16			
6.		INNOVATION16			
7.		POTENTIAL FOR SCALING UP AND FOLLOW-UP INVESTMENTS 17			
9.		MONITORING AND EVALUATION			
10	•	LESSONS LEARNT			
11	•	OUTREACH 20			
12	•	FINANCIAL SUMMARY 21			
13	•	CONCLUSIONS AND RECOMMENDATIONS			
ΑN	INEX	(ES			
An	nex	1 Project completion fact sheet			
	Annex 2 Updated Results Framework / Logical Framework Matrix				
	nex 3 Pictures nex 4 Impact story				
ΑIJ	пех	4 Impact story			

## 1. EXECUTIVE SUMMARY

The "innovative climate decision-support tools for enhancing SME resilience in Sri Lanka" project, more commonly referred to as the "building businesses' climate resilience (BBCR)" project, was initiated in September of 2018, with funding support from the NCF. Initially intended to run until December 2020, with primary focus on Sri Lanka, the project was extended until December 2021 due to factors outside of the control of the implementing team. The BBCR project was implemented by a team of local and international partners which included:

- 1) The UNEP-DTU Partnership (UDP) Based in Copenhagen, Denmark
- 2) The Asian Disaster Preparedness Center (ADPC) Main office in Bangkok, Thailand and sub-offices in Sri Lanka and the neighbouring region.
- 3) MP Ensystems Advisory Pvt Ltd. Based in India, with work experience in Sri Lanka
- 4) Ceylon Chambers of Commerce (CCC) Based in Sri Lanka

The main objective of the BBCR project was to develop a disaster risk management (DRM) and business continuity product that helps to mitigate the flood risk of Small and Medium-sized Enterprises (SMEs) in Sri Lanka, while also helping to enhance their adaptive capacity to this climate change related disaster. As such, the project contributed directly to achieving five sustainable development goals, i.e. SDG 5, 8, 11, 13 and 17, as it reduced SMEs' vulnerability to climate impacts through increased disaster risk management, adaptation awareness and capacity.

Project implementation was divided into four milestones, each focusing on a set of key outcomes which contributed to achieving the overall objective. Milestone one developed a baseline, which assessed the actual situation on the ground in Sri Lanka, improving the understanding of the current climate risks, vulnerability context, existing capacity and needs of targeted SMEs. The main results of milestone one was compiled in the baseline report, which also mapped the governance framework and financing mechanism that currently supports flood-affected SMEs. Activities under milestone one suffered some setbacks due to delays caused by terror attacks in Sri Lanka, which took place in March of 2019. This led to the first no-cost extension of the project timeframe. Milestone one officially concluded with the baseline validation workshop, which was conducted in Sri Lanka in October of 2019.

Milestone two built of the results of the activities of milestone one, primarily focusing on the development of a prototype adaptation decision making tool, that reflected the needs and desires of the targeted end users, i.e. SMEs. The needs and desires of SMEs were captured at a co-creation workshop (conducted in October 2019), which was followed up by field visits and interviews with selected SMEs. The first prototype of the adaptation decision making tool (also referred to as a disaster risk management

[DRM] tool) was ready for piloting in March of 2020. However, the piloting process was significantly delayed due to the onset of the global Covid-19 pandemic.

While milestone three activities were set to commence in March of 2019, the process was consequently modified to run across two phases, with phase one taking place in the summer of 2020, followed by adjustments of the tool, before phase two in the winter of 2020. Milestone three activities ended with additional adjustments being made to the prototype tool based on the results of the second phase of piloting.

The end of milestone three activities gave way to the activities of milestone four, which focused on the commercialisation and upscaling of the adaptation decision making tool, then referred to as the BBCR tool. Key activities included the widespread promotion and dissemination of the BBCR tool, not only in Sri Lanka, but to other neighbouring countries facing similar climate risks.

From the onset of the Covid-19 pandemic, many project related activities which were initially planned to taking place in physical face to face settings, such as workshops, demonstration seminars, experience sharing and leadership for were all moved to online platforms to allow the continuation of the project, while adhering to new rules and regulations in Sri Lanka. This significantly impacted on the project implementation in 4 main ways:

# Main negative impacts:

- (i) The level of attendance and attention of SMEs was harder to control via online interactions, which could have negatively affected participation rates and the feedback gathered from participants.
- (ii) Project no-cost extensions brought about additional administration costs which had to be borne by the implementing partners on the same budget.

# Main positive impacts:

- (iii) Allowed the participation of many more stakeholders, especially from the international environment, which helped in the planning for upscaling the outreach of the BBCR tool.
- (iv) The cost of hosting online workshops, meetings, seminars and webinars was significantly lower than the budgeted cost of the initially planned physical activities. This allow the project team to reallocate some funds to cover the costs of other activities which became necessary.

The BBCR tool was officially and successfully launched in a webinar entitled "relevance and usefulness on disaster risk reduction (DRR) tools", which was hosted by the Ceylon Chambers of Commerce, with the participation of all project partners and key stakeholders. Dissemination of the BBCR tool was conducted through numerous other online activities with the participation of both local and regional

stakeholders. The participation of the regional stakeholders (from neighbouring Asian countries) was part to the process to upscale the BBCR tool beyond the borders of Sri Lanka, where it has been developed, tested and launched. The tool is currently freely available to interested end users, while it is in the test-flight mode on the iOS and Android platforms.

An institutionalisation plan, which presents both a business plan and product delivery pathway for the commercialisation of the BBCR tool has also been developed, with a focus on the public sector. While this plan proposes actions that go beyond the original scope of the BBCR project, the implementing team continues to work on avenues for continuing the work of the BBCR project to ensure that the BBCR tool is made readily available to end users in the most effective ways possible.

# 2. ACHIEVEMENT OF RESULTS

# 2.1 Achievement of outcomes and outputs

Expected outcomes and	Indicator(s):	Achievement of outcomes and outputs:	
outputs	Friedran of heading and	The best in the second of the	
Outcome 1.1:  Improved understanding of current climate risk,	Existence of baseline survey report	The baseline survey was partially completed under milestone one and completed, as well as validated under milestone two.	
vulnerability context, existing capacity and needs of targeted SMEs clusters	Percentage of targeted SME representatives participating in baseline survey.	The original plan was targeting the garment sector.  The targeted number was 50. The actual representatives of SMEs participating in the baseline survey was 116, including all sectors.	
Output 1.1.1:  Baseline survey and Market analysis conducted (including vulnerability and flood maps, impacts, current coping measures and behaviour, awareness, local governance	2-days validation and dissemination workshop organized and held for SME clusters and support institutions (day 1) and for policy makers (day 2)	A 2-day workshop for the validation and dissemination of the baseline report was held on the 1st and 2nd October 2019 in Colombo, Sri Lanka. The workshop also included a "co-creation" component with SMEs, where information on the needs and desires, in terms of climate change adaptation, was gathered.	
and broader institutional government setting, willingness to pay etc.)	Percentage of women represented in study sample	The original plan was to include at least 30% women in the study sample. A total of 40% of the study sample were female employees or SME owners.	
	Inception Forum organized and held	Inception forum with potential stakeholders was held on 30th Oct and 1st Nov 2018.	
Outcome 1.2:  Improved capacity and action of targeted SME clusters, key support organizations and professionals to assess climate risks and climate	Percentage of targeted SMEs and support institutions (industry associations etc.) that have improved their knowledge of risks and impacts	100% of SMEs and support institutions participating in the BBCR project (through workshops, interviews, seminars, discussion and experience sharing fora and webinars) improved their knowledge and understanding of risks and impacts of climate change.	
proof their businesses	Percentage of targeted SMEs and support institutions that have knowledge of the benefits of implementing adaptation measures	100% of SMEs and support institutions participating in the BBCR project (through workshops, interviews, seminars, discussion and experience sharing fora and webinars) gained knowledge and understanding of the benefits of implementing adaptation measures to the impacts of climate change.	
Output 1.2.1:  Decision-support toolkit (web-based and grassroots level) and online platform for SME engagement developed	Existence of (a) web based- and (b) grassroots prototype adaptation decision-making tool and (c) online platform for SME engagement	The prototype decision making tool (or Disaster Risk Management tool) was developed in the form of a "mobile App". No grass-roots or paper version of the tool was developed because it is neither feasible nor necessary to do so.	
		The "Mobile App" is in fact an online platform, which also allows SME engagement. Additionally, the project used webpages on the UDP platform (https://unepdtu.org/project/innovative-decision-support-tools-for-building-business-resilience-to-climate-change-in-sri-lanka/), as well as on the ADPC platform, for further SME engagement (and promoting the project and the resources being produced). The Prototype tool is linked to the project's webpage and allows SME to become further engaged with the project, if they require any additional information or guidance. However, it should be mentioned that the SMEs are fully engaged	

Expected outcomes and outputs	Indicator(s):	Achievement of outcomes and outputs:
		via the mobile App, which has special features specifically aimed at SME engagement.
	Existence of video clips for toolkit demonstration and translation in local dialects	Comprehensive video clips for tool demonstration and promotion were developed and used in milestone 3. These will be updated and modified using the results of the piloting activities and to match the final version of the tool that was launched in Milestone 4.
Output 1.2.2:  Pilot: Adaptation approach identified and designed for targeted SME clusters (incl. suitable measures and financing mechanisms for adaptation investments).	Expected payback and net economic benefits generating period for the SMEs (years)	Given that it was not possible to calculate this parameter during milestone three, the project team attempted to gather some data to help determine the "expected payback and net economic benefits generating period for the SMEs (years)" during the end of project survey administered under milestone four. However, this was not possible because while the BBCR Tool provides tailored recommendations to SMEs based on their assessed risk levels, it does not provide any calculation of the costs an SME can expect to incur if they choose to follow the recommendations. Therefore, it was not possible to calculate an expected payback and net economic benefits generating period.
	Feasible adaptation options known by targeted SMEs	SMEs participating in the piloting of the BBCR Tool were successfully able to assess their "flood-risk level" and get recommendations (adaptation measures and actions) from the tool for address their flood-risk.
	Number of application manuals and pamphlets disseminated	Only 30 SMEs participated in the piloting of the BBCR Tool and they were all given manuals (hard copies) for the use of the Tool. Additionally, manuals were distributed to persons from the project reference group and participants in leadership forums and dissemination labs.
		Pamphlets were not printed nor disseminated. Instead, due to Covid-19 restriction, many face-to-face meetings had to be held remotely. This favoured the development of additional promotional videos and social media content, which was distributed for the promotion of the BBCR Tool among potential users and stakeholders.
	Number of leadership workshop (train the trainers) and dissemination labs organized and held	Following up on the leadership fora conducted under milestone three, the project team implemented an additional leadership forum under milestone four, using an online platform. Additionally, a dissemination forum and a webinar on "the relevance and usefulness DRM tools" were conducted during milestone four. These activities targeted both SMEs and supporting institutions, as well as other stakeholders in Sri Lanka and the wider region. Having these activities in the virtual space (i.e. online) allowed for reaching a very wide audience, eliminating the need to have too many repetitious sessions.

Expected outcomes and outputs	Indicator(s):	Achievement of outcomes and outputs:
	Percentage of targeted SMEs who can afford and are willing to implement the suggested measures	SMEs participating in the piloting of the BBCR Tool expressed interest in implementing the recommended adaptation measures. However, given that the BBCR tool was under a piloting process, it was not possible to assess how many of these SMEs would actually proceed with implementing the recommendations, or how many could even afford to implement the recommended adaptation measures.
Outcome 1.3:  Improved capacity and action of targeted SME clusters, key support organizations and professionals to assess climate risks and climate proof their businesses	Percentage of targeted SMEs who are willing to pay for the product after the end of project	The end of project survey showed that 22% of SME interviewed expressed willingness to pay for the services of the BBCR tool. This is short of the target of 40%. A total of 78% of respondents expressed no willingness to pay for the tool, for various reasons (see page 26 of the Project evaluation report). However, most of these respondents mentioned that they are willing to reassess their position when the App becomes institutionalised and more readily available.
Output 1.3.1:  Business plan and product delivery channel designed and developed (intermediaries identified and financial plan elaborated)	Existence of a business plan (financial, sales, marketing and product delivery plan)	An institutionalisation plan, which presents components of a business plan and identifies product delivery channels for the BBCR Tool, has been developed to guide the next steps for the BBCR tool. This plan focuses on the public organisations as potential owner of the BBCR tool, and has been developed in collaboration with partner government agencies who also served on the Project Reference Group. However, the project team also undertook discussions with interested private sector agencies who have expressed interest in taking over the BBCR tool.
Output 1.3.2:  Product outreach and dissemination of results and lessons-learnt	Dissemination forum for SME actors, industry stakeholders in Sri Lanka and the region and policy makers organised and held	The dissemination forum for SME actors, industry stakeholders and other interested organisations was organised and held under milestone 4. It was very well attended, by both national and international stakeholders interested in the services being offered by the BBCR tool.
	Number of publications printed and disseminated to share results and lessons learnt	Given the nature of the BBCR tool and the existing conditions, most project activities (workshops, leadership forum, dissemination labs, etc.) were conducted virtually. Therefore, there was no need to print copies of publications for sharing with stakeholders. Instead, the team focused on publishing the results and lessons learnt from the project in newspapers, project website and scientific journals. Soft copies of articles were easily shared with interested parties, allowing a greater outreach.
	Number of radio broadcasts	For greater outreach, the project team chose to produce short videos about the BBCR Tool for publication on Youtube and other social media channels, as well as the websites of the various project partners. This replaced the need for radio broadcasts which were considered very limited in achieving the outreach objectives of the project.

Expected outcomes and outputs	Indicator(s):	Achievement of outcomes and outputs:
	Percentage of women participating in the end of project survey	Only 18% of the participants in the end of project survey were women. This falls short of the project's initial aim of having at least 30% of participants being women. The reason for the relatively low participation of women is related to their cultural roles in the family run businesses and the family in general.

# 2.2 Deviations from the planned outputs and activities

Outputs and activities that did not take place	Reasons for deviations
Output 1.2.1:	
Activity 1.2.1.2: Design and development of web and grassroots toolkit content and specifications	The prototype decision making tool (or Disaster Risk Management tool) was developed in the form of a "mobile App". No grass-roots or paper version of the tool was developed because it is neither feasible nor necessary to do so, given the nature of the tool.
Activity 1.2.1.3: Development, layout and printing of product application manual and pamphlets	Pamphlets were not printed nor disseminated. Instead, due to Covid- 19 restriction, many face-to-face meetings had to be held remotely. This favoured the development of additional promotional videos and social media content, which was distributed for the promotion of the BBCR Tool among potential users and stakeholders.
Out	
Output 1.2.2:	
Activity 1.2.2.2: Establish network of targeted SMEs to co-learn and share knowledge	The restrictions due to the Covid-19 pandemic did not allow the gathering of targeted SMEs for co-learning and knowledge sharing sessions under the BBCR project.
Output 1.3.2:	
Activity 1.3.2.1: Press dissemination (radio and newspapers), social media and participation in business forums.	For greater outreach, the project team decided to produce short videos about the BBCR Tool for publication on Youtube and other social media channels, as well as the websites of the various project partners. This replaced the need for radio broadcasts which were considered very limited in achieving the outreach objectives of the project.

# 2.3 Achievement of NCF indicators

NCF core	Results (quantitative)	Clarifications/Means of verification
indicator		

Number of beneficiaries reached men		women		48		
beneficiaries reached total					owners reached, and does not include the employees, who may also be considered as	
women 48 While the BBCR tool was designed and developed based on the demand of the end users, the implementation of the project did not allow the full assessment of this parameter. While it is fair to assume that the number of people with increased resilience to climate change    Women 48   While the BBCR tool was designed and developed based on the demand of the end users, the implementation of the project did not allow the full assessment of this parameter. While it is fair to assume that the number of people with increased resilience to climate change assessments of the state of the strength of t		men		222	·	
men 222 users, the implementation of the project did not allow the full assessment of this parameter. While it is fair to assume that the number of people with increased resilience to climate change    Number of people with increased resilience to climate change   women   48		total		270	in majority of the cases, the businesses are family businesses and in the Sri Lankan culture,	
Number of people with increased resilience to climate change   women		women		48	_	
Number of people with increased resilience is at least the number of people with increased resilience is at least the number of people with increased resilience is at least the number of beneficiaries reached, we also note that this does not account for all the employees/staff of the SMEs. Follow up assessments of end users who adopt the BBCR tool, and how it also extends to the increased resilience to climate change as a direct result of using the tool.    Women		men		222		
developed based on the demand of the end users, the implementation of the project did not allow a full assessment of the number of people with improved livelihoods. Therefore, we make the conservative estimate that the number of people with improved livelihoods is at least the number of beneficiaries reached, but also note that this does not account for all the employees/staff of the SMEs. Follow up assessments of end users who adopt the BBCR tool, as well as how it impacts their employees, will better inform on the number of people with improved livelihoods as a direct result of using the tool.    Full-time	with increased resilience to climate	total		270	allow the full assessment of this parameter. While it is fair to assume that the number of people with increased resilience is at least the number of beneficiaries reached, we also note that this does not account for all the employees/staff of the SMEs. Follow up assessments of end users who adopt the BBCR tool, and how it also extends to the increased resilience of their employees, will better inform on the number of people with increased resilience to climate change as a direct result of	
Number of people with improved livelihoods    Number of people with improved livelihoods   Variable   Variable		women		48	_	
Number of people with improved livelihoods. Therefore, we make the conservative estimate that the number of people with improved livelihoods is at least the number of beneficiaries reached, but also note that this does not account for all the employees/staff of the SMEs. Follow up assessments of end users who adopt the BBCR tool, as well as how it impacts their employees, will better inform on the number of people with improved livelihoods as a direct result of using the tool.    Full-time		men		222	users, the implementation of the project did not	
men N/A SMEs from the negative impacts of flooding brought about by climate change. While protecting these SMEs has the extended impacts of protecting the livelihoods of the many people employed within the SME sector, the project does not directly create new jobs in the target population. Therefore, this NCF indicator cannot be assessed under the project.	with improved	total		270	with improved livelihoods. Therefore, we make the conservative estimate that the number of people with improved livelihoods is at least the number of beneficiaries reached, but also note that this does not account for all the employees/staff of the SMEs. Follow up assessments of end users who adopt the BBCR tool, as well as how it impacts their employees will better inform on the number of people wit improved livelihoods as a direct result of using	
men N/A SMEs from the negative impacts of flooding brought about by climate change. While protecting these SMEs has the extended impacts of protecting the livelihoods of the many people employed within the SME sector, the project does not directly create new jobs in the target population. Therefore, this NCF indicator cannot be assessed under the project.		full-time	women	N/A	The BBCB Broject facuses on protecting existing	
New decent jobs created part- time women N/A protecting these SMEs has the extended impacts of protecting the livelihoods of the many people employed within the SME sector, the project does not directly create new jobs in the target population. Therefore, this NCF indicator cannot be assessed under the project.			men	N/A	SMEs from the negative impacts of flooding	
created part- time women N/A employed within the SME sector, the project does not directly create new jobs in the target population. Therefore, this NCF indicator cannot be assessed under the project.			total	N/A	protecting these SMEs has the extended impacts	
men N/A population. Therefore, this NCF indicator cannot be assessed under the project.		part-	women	N/A	employed within the SME sector, the project	
			men	N/A	population. Therefore, this NCF indicator cannot	
			total	N/A	be assessed under the project.	

	women	N/A	Nonetheless, the setting up and implementation of the BBCR project by the consortium did result
	men	N/A	in the creation of various decent job opportunities through consultancies to perform
	total	N/A	key tasks. These key tasks included:
			1) Enumeration and data collection in Sri Lanka - by "Vanguard Survey Pvt Ltd"
seaso-			2) Design and development of the BBCR tool - by "CIID"
nal			3) Refinement of the BBCR tool - by "Insigt Design"
			4) Development of the BBCR Tool demo videos - by "Picture House Creations"
			All other staff of the project partners who worked on the BBCR project were already previous employees, also engaged in other projects.

## 3. CLIMATE CHANGE

The main goal of the Building Businesses' Climate Resilience (BBCR) project was to develop a disaster risk management (DRM) and business continuity product that helps to mitigate the flood risk of Small and Medium-sized Enterprises (SMEs) in Sri Lanka, while also supporting the enhancement of their adaptive capacity to this climate change related disaster. The project focused on three flood prone districts in Sri Lanka (Gampaha, Kalutara and Ratnapura), where 116 SMEs were targeted in the baseline vulnerability study. All of these 116 SMEs benefitted to some extent from participating in the project, as they received information on the risks related to climate change (flooding in particular) and the benefits of building resilience to this disaster through the implementation of adaptation measures.

An innovative DRM Tool was successfully developed and piloted under the BBCR Project. This tool is in the form of a mobile App, with three main functions described below:

- (i) An early warning system, based on national meteorological data (also possible to contribute localised user generated rainfall data) to actively inform users of potential flooding information as weather conditions change. Ideally, users would need to be informed of possible adverse weather conditions (capable of causing flooding) with enough time to allow them to take appropriate measures to protect their businesses and reduce their losses.
- (ii) A customised self-risk assessment model (through a questionnaire) that informs the user of their general risk level, based mainly on exposure and vulnerability to flood events. Users are required to retake the assessment (survey) every time they have implemented an adaptation

measure, or made significant changes to their businesses that can affect their risk level. This provides the users with the assurance of knowing what actions lower their risk level and what actions may increase the risk level.

(iii) The provision of guidance and recommendations for pursuing adaptation measures, customised for the specific user, based on their specific circumstances and assessed risk level. This feature is connected to the above feature (ii) and primarily provides the user with recommendations for reducing their risk level (based on their assessed score), or for protecting their businesses from loss and damage.

As part of the project, an institutionalisation plan for the BBCR tool was developed, in collaboration with the public sector in Sri Lanka, which aims at making the tool readily available to SMEs at the lowest possible cost. While this plan has not yet been implemented, it has been calculated that if properly implemented, the benefits of the BBCR tool significantly outweighs all related costs, making the tool an attractive asset to policy makers, practitioners and business owners aiming to reduce the impacts of climate change related flooding in Sri Lanka and the wider region.

## 4. DEVELOPMENT IMPACTS AND CROSS-CUTTING ISSUES

SMEs are widely recognised to represent the 'backbone' of economies of developing countries. It has been estimated that they can account for as much as 66% of full-time, permanent employment in these countries, thus accounting for more employment than their larger equivalents and micro-enterprises combined. As a consequence of their prominence in developing economies, their resilience to climate-related shocks and disruptions, as well as other forms of shock (e.g. market), needs to be considered as paramount to the well-being of the local and national economies they are embedded in.

SMEs in Sri Lanka are increasingly at risk from climate change related disasters, such as floods, which negatively affect their productivity as well as the livelihoods of the millions of people they employ. The BBCR tool was developed to specifically address this problem, by helping SMEs adapt to this climate change related disaster, becoming more resilient in the process. If properly implemented, the tool will help secure this crucial component of the national economy, by reducing losses to business and allowing them to return to operations with minimum interruptions following flooding disasters. The BBCR tool can also help make SMEs more insurable, allowing them the option of transferring risks by utilizing insurance products, to improve their chances of survival from floods.

## 5. ASSESSMENT OF THE RESULTS AND IMPACTS OF THE PROJECT

## 5.1 Relevance

Small and Medium size Enterprises (SMEs) in Sri Lanka, which contribute significantly to the country's export industry, are highly at risk from floods and other climate related disasters. The continued impacts of climate change is expected to further exacerbate this risk, which have adverse impacts on businesses (damaging their physical assets, disrupting production, limiting access to raw materials, revenue loss, etc.). For example, in 2016 and 2017, 80% of business establishments affected by floods in Sri Lanka were micro, small and medium businesses.

While financially and technically feasible solutions exist, SMEs are generally unaware of all the options they have at their disposal and of the potential adaptation measures that can reduce their risks and losses in the long term. Therefore, the project's main objective of developing a disaster risk management (DRM) and business continuity product, which will allow SMEs to reduce their recurring losses while putting in place measures to continue their business operation during extreme weather events, was and remains highly relevant. This relevance is reflected in the high level of buy-in from local government counterparts in Sri Lanka, who continue to explore avenues for further implementing the results of the BBCR project to address the continued problems associated with flooding. To support this process, an institutionalisation plan, focusing on the public sector, was developed under the project.

Further to the work of the various government ministries who supported the project, various private sector institutions continue to express interest in the results of the project. One such private sector institution is the SANASA insurance company, with which the project consortium is in the process of developing a follow up project, which will use the results of the BBCR project to develop innovative insurance products targeting SMEs in Sri Lanka.

## 5.2 Effectiveness

The BBCR project set out to develop a disaster risk management (DRM) and business continuity product which will allow SMEs to reduce their recurring losses while putting in place measures to continue their business operation during extreme weather events. Employing a highly participative approach, implemented with the assistance of an internationally recognised design firm, a prototype was successfully developed in 2020. This prototype was piloted in the field in Sri Lanka over two piloting phases, each followed by rounds of tool modification and improvements, which resulted in the current version of the BBCR tool, which was officially launched in October of 2021. While the tool is not yet institutionalised, preliminary results from the second piloting phase, as well as a follow up survey and a cost benefit analysis conducted at the end of the project, show that the tool can be highly effective at fulfilling its purpose. Additionally, due to the innovative nature of the BBCR tool, it

has the potential to form part of more complex and specialised products aimed at reducing the impacts of flooding on SMEs.

The level of success experienced by the BBCR project was as a result of many factors, which were incorporated into the design and implementation plans. The three main factors are:

- (i) A high level of local buy-in and support of both the objectives of the project (due to its relevance) and the plans for implementation, by key government institutions and other stakeholders (the SME sector and their support institutions).
- (ii) The highly participative approach implemented by the BBCR project, which included in-depth consultations with local SMEs (for whom the DRM tool was being developed) and guided by a local project reference group (PRG) comprising both public and private support institutions who are key stakeholders relevant to the work of the project.
- (iii) The composition of the project implementing consortium, which covered all key areas and strengths (skills, experience, networks and outreach capacity) needed to ensure the successful implementation of such an innovative and relevant project.

# 5.3 Efficiency

The BBCR project was initially designed to run over a two year timeframe, from September 2018 to September 2020. However, after consultation with all project consortium partners and the NCF, the project was extended until December 2021. The factors forcing the extension of the project implementation timeframe are:

- (i) Terror attacks in Sri Lanka in Easter of 2018, which lead to the delay of the baseline survey by about 3 months.
- (ii) The global Covid-19 pandemic, which struck is March of 2020 and resulted in significant delays, changes in modality of activities, modifications and in some cases redesigning of the planned project activities.

The project implementing consortium ensured the safety of all staff and project participants at all time, always following national and international rules and regulations when conducting planned activities. This enabled the continuation of the project, albeit significantly delayed and modified, working towards the achievement of the main objectives.

Although the project's timeframe was significant extended, all extensions were nocost extensions, meaning that the project was implemented under the same budget as initially planned. This was supported by the reallocation of funds from budget lines that were not fully spent, to other budget lines that had a higher cost than initially expected, as well as new budget lines for activities that were initially unplanned and unforeseen.

# 5.4 Impact

The BBCR project demonstrated impact in the areas of, addressing a major climate change related problem which has direct consequences on the well-being, livelihoods and national economy in Sri Lanka. The work of the project has contributed to advancing the knowledge base on climate change adaptation, enabling factors and limitations in Sri Lankan SMEs. This knowledge can be extrapolated to SMEs in similar countries and will have significant longer term impacts in addressing climate change related disasters (particularly flooding).

The use of information communication technologies (ICT) in addressing climate change adaptation, as implemented in the project, is a relatively burgeoning field, with significant potential to improve how we address the impacts of climate change. The use of technology by different sectors, including private businesses, for addressing DRM challenges is also advocated in international guidance such as the Sendai Framework for Disaster Risk Reduction 2015-2030. This is expected to grow in the future, allowing further development of the BBCR tool, building on the existing base to more effectively serve its purpose.

The social and economic effects of the BBCR tool, as demonstrated by the positive results from the cost benefit analysis, will extend beyond just the owners of the SMEs. Employees of the impacted SMEs, who are mostly women, will benefits from more secure jobs and working environments and can be considered as indirect beneficiaries of the project activities. Additionally, supply chains linked to the SME sector will have fewer and shorter interruptions as a result of flooding.

# 5.5 Sustainability

The knowledge acquired and the tool developed under the BBCR project will have long term and sustainable positive effects on SMEs in Sri Lanka if the tool is properly institutionalised and made readily available to the designated end users. Given the expected increase in the expected impacts of climate change, such DRM tools will only become more relevant for helping SMEs adapt to this problem. Therefore, it is important that the institutionalisation plan developed under the project is implemented, to ensure that the potential long term benefits of the project are realised and persist long after the project is completed. The project implementing team is dedicated to continue working with the necessary key stakeholders, after the completion of the project, to facilitate the institutionalisation process, ensuring that the BBCR tool becomes fully available to the intended end users (i.e. the SME owners and managers).

## 5.6 Coherence

The BBCR project initiatives synergized with wider efforts to engage the private sector and SMEs to enhance their resilience to climate change and disasters both in Sri Lanka and the Asia region. The tools and key findings derived from the project were disseminated among regional networks including the multi-stakeholder "Asian Preparedness Partnership (APP)", established by ADPC, which strives to improve inter-organizational coordination and dialogue between governments, local humanitarian organization networks, and the private sector for enhancing capacities through partnerships, knowledge resources, training, and networking opportunities. In line with this approach, in Sri Lanka, the project directly engaged the private sector through the Ceylon Chamber of Commerce (CCC), and drew commitment from the Disaster Management Center and the Ministry of Industries to recognize SMEs resilience as an important component of enhancing societal resilience to disasters.

## 6. INNOVATION

The BBCR Project was considered highly innovative for three main reasons:

- (i) The project sought to employ a highly participative approach to developing a DRM tool for the SME sector in Sri Lanka. The development of DRM tools are mostly through top down processes that rarely take into consideration to views of the targeted end users. This can sometimes lead to a mismatch between the expectations of the end users and the services delivered by the final product. To avoid such a problem and to ensure that there is a high level of buy-in from all stakeholders, the BBCR project used a highly participative approach, relying on frequent and open consultation with all stakeholders, including the owners and managers of SMEs, as well as their support institutions. This allowed a more in-depth understanding of the problem from a more local lens or ground level, which also guided the development of a prototype tool that considered the expectations of these key stakeholders.
- (ii) The use of ICT to more easily allow the incorporation of the BBCR tool into the lifestyles of the end users. Given the extensive use of smart phones and the extensive mobile connections in Sri Lanka, the use of ICT allows the tool to be placed at the fingertips of end users, with the intention of maximizing its value to them. Additionally, this allows for future improvements of the tool, to ensure that it remains relevant to the end users.
- (iii) The BBCR tool can be a standalone product or can be incorporated into a package that presents other specialised products to the SMEs, such as more suitable and affordable insurance coverage or adaptation financing options (loans). The option of incorporating the tool into a specialised insurance

product, targeting SMEs is being discussed with a local insurance company in Sri Lanka.

## 7. POTENTIAL FOR SCALING UP AND FOLLOW-UP INVESTMENTS

The BBCR tool has a high potential for scaling up in two ways. Firstly, the tool now covers only flooding. It could be further developed to address preparedness for other climate change related disasters such as droughts, landslides and wind damages during storms, among others. This would increase its relevance to even more SMEs in Sri Lanka. Secondly, the tool can be made suitable for SMEs in other countries with similar conditions to Sri Lanka, such as neighbouring countries in the Asian region. With this in mind, the project team invited interested stakeholders from neighbouring countries to dissemination forum and other webinars conducted under the BBCR project. This is expected to pave the way for eventually upscaling the tool to the neighbouring countries when enough experience has been gathered from the implementation in Sri Lanka.

Scaling-up activities will require further investments, which will be sourced from the private sector and other funding bodies. The project implementing team is currently developing funding proposals with the aim of securing the funding needed to assist with the scaling-up of the results of the BBCR project.

## 8. RISKS

Numerous risks were identified during the planning of the project. While most of these risks, as well as other unforeseen arising risks, did not materialise during the implementation of the project, they remained a potential threat throughout the life of the project.

The main risks which materialised and had serious implications on the project are described and assessed in the table below. The risk mitigation measures, as described below, were effective and allow the continuation of the project under difficult circumstances in many cases. This effectiveness was due to the cooperation and participation of all partners in assisting in the planning and modification of the necessary project activities.

Project risk description	Impact on project	Mitigating measures and responsibility
Political turmoil in Sri Lanka	The parliament was dissolved for several months and many of the government agencies that had been mobilized during the inception mission were not sure of their status. This undermined the relationships that had been built with government agencies since the inception mission as well as	Plans were put in place with the Ministry of Industry and Commerce to steer the PRG and convene the first meeting during the September mission. The second mission enabled more in-depth meetings and interviews with various government agencies to reestablish new partnerships.

Easter Sunday terror attacks on Catholic churches and Colombo hotels	Impacted the safety and security of local staff at APDC and Ceylon Chamber of Commerce as well as delayed the completion of the workshop initially planned for June, as it was necessary to stop all on the ground activities.	The project team delayed the project activities on the ground for three months to monitor how the security situation would unfold given that many parts of Colombo were under curfew and lock-down. The situation remained tense, with a high terror alert level on the ground although the public resumed daily activities some weeks after. The project team shifted the validation and co-creation workshop to October of 2019 with frequent reassessment of the security situation.
Novelty of the product leading to unforeseen costs during actual project implementation.	With novelty comes the difficulty of accurately predicting all the costs related to the successful implementation of the project. Given that the nature of the DRM tool to be developed under the BBCR project was left open during the development of the project proposal, it was only possible to plan/account for envisioned costs. When the project settled for developing the DRM tool in the form of a Mobile App, all the related costs became clearer and needed to be addressed. In some cases, some of these costs were increased due to delays in other project activities and new steps needed to be taken to meet the objectives of the project.	Where possible, predicted costs were kept to a minimum, so that unused funds can be reallocated to cover new activities and costs. Where needed, other/additional funding was sourced to cover any costs that could not be covered by the project budget.  This was a responsibility of all project partners, therefore, the consortium worked together on identifying possibilities for reallocating funding to cover new costs. Additionally, project partners also explored new sources of funding to cover additional costs that the project budget could not cover. The aim was to achieve the main objectives of the project to the highest standard possible, for the benefit of the end users of the BBCR Tool.
Project Contractors not delivering	The challenges and strains presented by the global conditions (pandemic) led to many companies going bankrupt and out of business. Unfortunately, the main project contractor, Copenhagen Institute of Interaction Design (CIID), responsible for designing the BBCR Tool, succumbed to the impacts of global conditions brought about by the pandemic and filed for bankruptcy in September 2020. This forced the project partners to procure replacements for CIID, which added to the costs and caused further delays in implementation.	The UDP team (responsible for hiring CIID) were able to secure the services of some of the same consultants, formerly of CIID, with knowledge of the BBCR Tool, to continue working with the project under new contracts. This allowed the work on the BBCR Tool and the support for the piloting activities to continue, though with some additional costs and delays.
Covid-19 outbreak creating delays in the implementation of the project	Due to the Covid-19 protocols in Sri Lanka, it was not possible for partners outside the country to travel to Sri Lanka. Additionally, the timing of protocols was unpredictable, leading to the need for constant revision of plans for implementing project activities. Many activities during the piloting of the BBCR Tool were forced to be held	Some activities were postponed to a later stage in the project, with the hope that conditions would improve and implementation would be more successful. Where it was possible to move activities to online platforms this avenue was explored and utilised. All project partners involved in the implementation of activities were

virtually (online), becoming less impactful and in some cases receiving very little feedback and responses from participants. The level of penetration and exposure from the piloting of the BBCR tool was therefore lower than initially anticipated.

responsible for implementing mitigating measures to reduce the impact of Covid-19 pandemic and its consequences. Where needed, extensions of the project timeline and modifications of the workplan were undertaken to facilitate the continuation of the project to successfully achieve all objectives.

## 9. MONITORING AND EVALUATION

Apart from the monitoring and evaluation of the project conducted following the procedures and protocols of the implementing partners and the NCF, a project evaluation survey was also implemented by a third party contracted under the project. The contracted organisation was Sri Lankan base Vanguard Survey Pvt Ltd. This organisation was well placed to conduct the required monitoring and evaluation activities, as they were already familiar with the BBCR project, through active roles during earlier phases of the project.

Some of the main conclusions of the project evaluation report produced by Vanguard Survey Pvt Ltd can be summarised as:

- (i) The project and the app provides an appealing solution to the target group
- (ii) The BBCR tool has the potential to become a day to day product used by SMEs, provided a proper awareness and marketing campaign is carried out
- (iii) Pricing should be around LKR 3,000/- and focus on low price and high volumes (based on willingness to pay questions)
- (iv) A team should be dedicated to work on the awareness building campaign
- (v) Campaign should be done via local traders' association and groups
- (vi) Distrust and doubts over the capability of the app needs to be addressed
- (vii) The project needs to have a local technical team to work with developers and operate the BBCR tool as it becomes available to end users.

## 10. LESSONS LEARNT

The BBCR project was, from its outset, an exceptionally ambitious and innovative project, with a high degree of relevance for stakeholders and for contributing to the knowledge base on climate change adaptation. The project experienced numerous setbacks due to factors outside the control of the consortium responsible for

implementing the project activities. Of these setbacks, the most significant was the outbreak of the Covid-19 pandemic, which had both direct and indirect implications on many aspects of project implementation. Nonetheless, the project implementing team remained pragmatic and flexible with the planning and implementation of project activities, allowing the continuation of the project over a longer than anticipated timeline and with limited resources to cover unforeseen disturbances. With the support of the NCF, the project team modified the work-plans and secured no-costs extensions whenever they were needed, ensuring that all was done to achieve the main objectives of the project. Clear and early communication among all project partners was a key factor in keeping the project moving, while always following national and international safety protocols to protect the implementing teams and other stakeholders.

The BBCR tool is already generating significant interest in Sri Lanka and in the wider region. Results from dissemination activities and data collected for the development of the institutionalisation plan show that there is a net benefits for both private and public sector institutions to play a role in delivering the tool to end users. While the institutionalisation plan developed under the project focuses on the public sector, ongoing talks with the private sector presents promising avenues for upscaling and delivering the tool to end users. Therefore, the project team recommends that discussions on the institutionalisation process continue even after the closure of the project. This will require the acquisition of additional funding to support the process. The project team is collaborating to develop funding proposals with the aim of sourcing the necessary funds to ensure that the BBCR tool is properly institutionalised and delivered to end users in the most effective way possible.

In terms of how we would plan and implement the project differently, based on the experiences gathered, one important aspect would be allowing a budget line to buffer unforeseen costs related to the high level of ambition and innovation associated with the project. As has been mentioned before, the high level of innovation meant that many factors were unclear at the start of the project and became clear during implementation. The initial uncertainty made it difficult to correctly predict all the expected costs and adequately budget for them. The project had a fixed budget, which limited the level of modifications that could have been made to meet the set objectives. A more flexible budget would have allowed the implementing team more leeway to venture into the proper institutionalisation of the BBCR tool, ensuring that the project's objectives were achieved to an even higher degree.

## 11. OUTREACH

The dissemination of the results from the BBCR project is a key aspect of the success of the project. The project has remained consistent and transparent in documenting records of key project activities with activity reports. These reports serve as a reference for keeping track of the progress made during the implementation of the project. The activities under the fourth and final milestone contributed significantly to

disseminating the results and lessons learnt from the project to date. While it was not possible to have physical workshops and other face-to-face information sharing sessions, the use of online platforms allowed for reaching a wider audience at a lower cost. This also removed to need for printing and distributing hard copies of reports and other project related articles.

The various websites of the project partners each include pages dedicated to disseminating the results of the project and promoting the BBCR tool. All partners continue to publish short stories about the project, allowing interested audiences a chance to keep abreast with the activities and results. In the case of local partners in Sri Lanka, the results are directly spread among their local networks to maintain interest in the work of the project and where possible, to link it to other related ongoing activities.

Other dissemination activities include (all distributed through online communication platforms to interested and relevant stakeholders):

- The drafting and publication of two scientific manuscripts in internationally recognised peer reviewed journals. These articles are currently under journal review and should be published in 2022.
- Publication in popular local newspapers, Ceylon Daily News, in Sri Lanka. The
  publication was aimed at promoting the BBCR tool and the service it provides
  to end users.
- Development and publication of promotional videos on Youtube and other social media platforms (Twitter and LinkedIn)
- The development of two policy briefs, based on the knowledge gathered from the project, targeting decision makers and other high-level stakeholders. It should be noted that more policy briefs will be produced from the results of the project.

# 12. FINANCIAL SUMMARY

**Table 1. Project financing per partner** 

	Financing, EUR						
Expenditures, EUR	NCF	UNEP DTU	ADPC	MPensystem	Chamber	Revenues from the project	Total
UNEP DTU	258.566,77	99.906,91					358.473,68
ADPC	129.025,31		25.520,09				154.545,40
MPensystem	70.758,54			24.804,00			95.562,54
Chamber	12.325,80				0		12.325,80
Total	470.676,42	99.906,91	25.520,09	24.804,00			620.907,42

## 13. CONCLUSIONS AND RECOMMENDATIONS

The BBCR tool was successfully launched in a webinar hosted by the Ceylon Chambers of Commerce in October 2021, and disseminated in numerous other online activities with the participation of both local and regional stakeholders. The participation of the regional stakeholders (from neighbouring Asian countries) was part of the process to upscale the BBCR tool beyond the borders of Sri Lanka, where it has been developed, tested and launched.

An institutionalisation plan, which presents both a business plan and product delivery pathway for the commercialisation of the BBCR tool was developed, with a focus on the public sector. While the execution of this plan was beyond the limitations of the BBCR project, the team is currently working on avenues for continuing the work of the BBCR project to ensure that the BBCR tool is made readily available to end users in the most effective ways possible.

The project team strongly recommends the continuation of the work of the project, to ensure the proper institutionalisation of the BBCR tool in Sri Lanka. Given that this process will require additional funding, the team has already began the process of drafting funding proposals aimed at securing the needed funds. Additionally, we recommend the continued monitoring of the process of making the BBCR tool readily available to end users, so that lessons can be learnt for the scaling-up of the tool to other countries and to possibly cover other climate change related disasters.

# Annex 1 - Project completion fact sheet

Project Name:	"Innovative climate decision-support tools for enhancing SME resilience in Sri Lanka, Sri Lanka, NCF7"				
Project no.	NCF-C7-102				
Country:	Sri Lanka		Financ	ing:	
			EUR	%	
Nordic Partner:	UNEP-DTU Partnership	99	.906,91	16.1	
Local Partner:	Ceylon Chambers of Commerce		0	0.0	
	Asian Disaster Preparedness Center	25	5.520,09	4.1	
Other Partner:	MPEnsystems	24	1.804,00	4.0	
	NCF grant disbursed		0.676,42	75.8	
	Total		0.907,42	100.00	
Classification:	Adaptation		•		
Project cycle:	Project start date: 15-09-2018				
	Original closing date: 14-09-2020				
	Actual closing date: 31-12-2021				
Short project	With the support from the Nordic Climate Facility	, UNEP DTU	Partnership, Asia	an Disaster Preparedness	
description:	Center, the Ceylon Chamber of Commerce and MPE				
	of developing a disaster risk management (DRM) a			•	
	SMEs in Sri Lanka to reduce their recurring losses du				
	their business operation during extreme weather e				
	insurance companies, who are indirectly affected	by climate	risks via their clie	ents, also play a role and	
	participate in the project as key stakeholders. The project developed an innovative and sustainable	e way to hui	ld husinesses' ada	intation canacity, which	
	can later be replicated and scaled-up across other s			iptation capacity, which	
Project	Expected Outcomes and Outputs	Achieved	End-of-project	status	
performance:	Outcome 1.1: Improved understanding of current			er milestone 2 of project	
'	climate risk, vulnerability context, existing	YES			
	capacity and needs of targeted SMEs clusters				
	Output 1.1.1: Baseline survey and Market analysis				
	conducted (including vulnerability and flood				
	maps, impacts, current coping measures and	YES	Completed under	er milestone 2 of project	
	behaviour, awareness, local governance and				
	broader institutional government setting,				
	willingness to pay etc.)  Outcome 1.2: Improved capacity and action of		Mhile this outes	ome was achieved under	
	targeted SME clusters, key support organizations			s important that there is	
	and professionals to assess climate risks and			n by the responsible	
	climate proof their businesses	YES		nsure that adaptation to	
	·			remain an important part	
			of the actions of	f SMEs.	
	Output 1.2.1: Decision-support toolkit (web-		Prototype devel	oped and final tool	
	based and grassroots level) and online platform	YES	launched.		
	for SME engagement developed				
	Output 1.2.2: Pilot: Adaptation approach				
	identified and designed for targeted SME clusters (incl. suitable measures and financing	YES	BBCR tool.	gh the services of the	
	mechanisms for adaptation investments).		BBCK (OOI.		
	Outcome 1.3: Improved capacity and action of		While this outco	ome was achieved under	
	targeted SME clusters, key support organizations			s important that there is	
	and professionals to assess climate risks and	VEC		n by the responsible	
	climate proof their businesses	YES		nsure that adaptation to	
				remain an important part	
			of the actions of		
	Output 1.3.1: Business plan and product delivery		Developed unde	er milestone 4 of project	
	channel designed and developed (intermediaries	YES			
	identified and financial plan elaborated)				

	Output 1.3.2: Product outreach and dissemination of results and lessons-learnt			YE		Completed under milestone 4 of project
Climate change outcomes and impacts:	<ul> <li>Create greater awareness of the possible impacts of climate change on SMEs, the risk levels of SMEs and the options for building resilience through climate change adaptation.</li> <li>Provide SMEs with the capacity to reduce the risks levels and adapt to the expected impacts of climate change.</li> </ul>					
Development outcomes and impacts:	- Improved security for the wider Sri Lankan economy - through greater resilience to the impacts of climate change in the SME sector					
NCF core	NCF core indicator	Results (qua	antitative)		Clar	ifications/Means of verification
indicators		women 4		48	Tho	so figures represent the number of
	Number of	men total women		222		se figures represent the number of
	beneficiaries reached			270	inclu	ness owners reached, and does not ude the employees, who may also be sidered as beneficiaries.
	Number of people			48	Whi	le the BBCR tool was designed and
	with increased	men		222	deve	eloped based on the demand of the end
	resilience to climate	total		270	user	rs, the implementation of the project did
	change					allow the full assessment of these
		women		48	para	ameters. While it is fair to assume that the
	Number of people	men		222		nber of people with increased resilience
	with improved	total		270		improved livelihoods is at least the
	livelihoods					nber of beneficiaries reached, we also note
						this does not account for all the
			1		emp	ployees/staff of the SMEs.
	New decent jobs created	part-time seasonal	women	N/A	— The	BBCR Project focuses on protecting
			men	N/A		ting SMEs from the negative impacts of
			total	N/A		ding brought about by climate change.
			women	N/A		le protecting these SMEs has the extended
			men	N/A	impa	acts of protecting the livelihoods of the
			total	N/A	man	ny people employed within the SME sector,
			women	N/A	the	project does not directly create new jobs in
			men	N/A		target population. Therefore, this NCF
			total	N/A	indio proj	cator cannot be assessed under the ect.
					impl cons dece cons	etheless, the setting up and lementation of the BBCR project by the sortium did result in the creation of various ent job opportunities through sultancies to perform key tasks. These key s included:
						numeration and data collection in Sri Lanka "Vanguard Survey Pvt Ltd"
					-	esign and development of the BBCR tool - CIID"
					3) Ro Desi	efinement of the BBCR tool - by "Insigt ign"
						evelopment of the BBCR Tool demo videos "Picture House Creations"
					wor	other staff of the project partners who ked on the BBCR project were already vious employees, also engaged in other ects.

# Annex 2 - Results Framework

Original Milestone Deliverable	Revised Milestone Deliverable	Completed (Yes/No/Partially)	Comments
Output 1.1.1: Baseline	survey and Market and	alysis conducted	T
Baseline survey report	None	Yes	Validated and disseminated under Milestone (MS) 2.
Percentage of targets SME representatives participated in baseline survey 85%	None	Yes	Reported in MS 1.
Validation and dissemination workshop	None	Yes	Conducted and reported under MS 2.
Percentage of women represented in study sample 30%	None	Yes	Reported under MS 1
Inception mission/ meeting with all partners	None	Yes	Reported under MS 1
Establishment of Project Reference Group	None	Yes	Reported under MS 2
Output 1.2.1: Decision- engagement developed		ased and grassroots lev	vel) and online platform for SME
Existence of (a) web based- and (b) grass-root prototype adaptation decision-making tool and (c) online platform for SME engagement	No grass-roots or paper version of the tool was developed because it is neither feasible nor necessary to do so.	Yes	Reported under MS 2
Focus group/test group creation, testing and validation (representative SMEs and key stakeholders)	None	Yes	Reported under MS 2
Development, layout and printing of product application manual and pamphlets	None	Yes	Reported under MS 3
Development of video clips for toolkit demonstration (translation in local dialect)	None	Yes	Reported under MS 3
Finalization of prototype toolkits	None	Yes	Reported under MS 2

(web based and grassroots)						
Output 1.2.2: Pilot: Adaptation approach identified and designed for targeted SME clusters						
Calculation of "expected payback and net economic benefits generating period for the SMEs (years)":	The piloting of the BBCR Tool did not assess in which adaptation measures SMEs would choose to invest. Therefore, it was not possible to calculate the "expected payback and net economic benefits generating period for the SMEs".	No	Given that it was not possible to calculate this parameter during milestone three, the project team attempted to gather some data to help determine the "expected payback and net economic benefits generating period for the SMEs (years)" during the end of project survey administered under milestone four. However, this was not possible because while the BBCR Tool provides tailored recommendations to SMEs based on their assessed risk levels, it does not provide any calculation of the costs an SME can expect to incur if they choose to follow the recommendations. Therefore, it is not possible to calculate an expected payback and net economic benefits generating period.			
Feasible adaptation options known by targeted SMEs.	None	Yes	Reported under MS 3			
Dissemination of at least 200 application manuals and pamphlets	Due to the limitations and changes in protocols brought about by the Covid-19 pandemic, there was no need to print and physically disseminate tool application manuals and pamphlets. Instead, all information was disturbed online, through various media platforms.	Partially	Only 30 SMEs participated in the piloting of the BBCR Tool and they were all given manuals for the use of the Tool. Additionally, manuals were distributed to persons from the project reference group and participants in leadership forums and dissemination labs.  Pamphlets were not printed nor disseminated. Instead, due to Covid-19 restriction, many face-to-face meetings had to be held remotely, therefore a promotional video was produced and this was distributed for the promotion of the BBCR Tool among potential users and stakeholders.			
Leadership workshop (train the trainers) and dissemination labs organized and held	None	Yes	Reported under MS 4			
Percentage of targeted SMEs who can afford and are willing to implement	None	No	SMEs participating in the piloting of the BBCR Tool expressed interest in implementing the recommended adaptation measures. However,			

Alexander 1 1			-in-regular the page 1
the suggested			given that the BBCR tool was under
measures identified			the piloting process, it was not
			possible to assess how many of these
			SMEs would actually proceed with
			implementing the recommendations,
			or how many could even afford to
			implement the recommended
			adaptation measures. A post-project
			questionnaire (follow-up) can be
			used to evaluate the percentage of
			users of the BBCR Tool that actually
			go on to implement the
			recommended adaptation measures.
Piloting and	None	Yes	Reported under MS 3
refinement of tools		. 55	The period direction of
in targeted SME			
clusters sectors to			
guide cluster			
adaptation			
investments Establish network of	None	NI-	The restrictions due to the Covid-19
	None	No	
targeted SMEs to co-			pandemic did not allow the
learn and share			gathering of targeted SMEs for co-
knowledge			learning and knowledge sharing
			sessions under the BBCR project.
0			
Output 1.3.1: Business   Estimation of the			
	None	Partially	Reported under MS 4
percentage of			
targeted SMEs who			
are willing to pay for			
the product after the			
end of project			
Existence of a	None	Yes	Reported under MS 4
business plan			
(financial, sales,			
marketing and			
product delivery			
plan):			
Development of a			
business plan			
(including a financial			
plan, sales and			
marketing plan and			
product delivery			
I			
plan)			
pian)			
Output 1.3.2: Product of		ation of results and le	1
Output 1.3.2: Product of Product outreach	outreach and dissemina None	ation of results and le Yes	essons-learnt Reported under MS 4
Output 1.3.2: Product of Product outreach and dissemination of			1
Output 1.3.2: Product of Product outreach			1
Output 1.3.2: Product of Product outreach and dissemination of results and lessons-learnt			1
Output 1.3.2: Product of Product outreach and dissemination of results and lessons-			1

and disseminated to share results and lessons learnt			project activities (workshops, leadership forum, dissemination labs, etc) were conducted virtually. Therefore, there was no need to print copies of publications for sharing with stakeholders. Instead, the team focused on publishing the results and lessons learnt from the project in newspapers, project website and scientific journals. Soft copies of articles were easily shared with interested parties, allowing a
Number of radio broadcasts	For greater outreach, the project team chose to produce short videos about the BBCR Tool for publication on Youtube and other social media channels, as well as the websites of the various project partners. This replaced the need for radio broadcasts which were considered very limited in achieving the outreach objectives of the project.	Yes	greater outreach.  Reported under MS 4
Percentage of women participating in the end of project survey	None	Partially	Only 18% of the participants in the end of project survey were women. This falls short of the project's initial aim of having at least 30% of participants being women. The reason for the relatively low participation of women is related to their <i>cultural roles</i> in the family run businesses and the family in general.

## Annex 3 - Pictures

*Included in supplementary file due to the size of the pictures.* 

# Annex 4 - Impact story

The main goal of the "Innovative climate decision-support tools for enhancing SME resilience in Sri Lanka, NCF7" project was to develop a disaster risk management (DRM) and business continuity product that helps to mitigate the flood risk of Small and Medium-sized Enterprises (SMEs) in Sri Lanka, while also helping to enhance their adaptive capacity to this climate change related disaster.

Following early stages of data gathering as part of the baseline activities, a prototype DRM tool was develop based in the form of a mobile App. The prototype was piloted and improved based on the results of the piloting process, given rise to the first version of the BBCR tool. Three main features are presented in the tool: (i) an early warning system, based on national meteorological data (supported by localised user generated rainfall data), to actively inform users of their risk of flooding as weather conditions change; (ii) a customised self-risk assessment model that informs the user of their general risk level, based mainly on exposure and vulnerability; and (iii) the provision of guidance and recommendations for pursuing adaptation measures, customised for the specific user, based on their specific circumstances and assessed risk level.

The BBCR tool was officially launched in a webinar entitle "relevance and usefulness on disaster risk reduction tools", hosted by the Ceylon Chambers of Commerce, with the participation of all project partners and key stakeholders. The tool is currently freely available to interested end users, while it is in the test-flight mode on the iOS and Android platforms. Dissemination activities included stakeholders and policy makers from Sri Lanka and neighbouring Asian countries, who continue to express interest in the BBCR tool, as well as the lessons learnt from the implementation of the BBCR project. While the BBCR tool has not yet been taken over by any local owner in Sri Lanka, an institutionalisation plan has been developed. This plan focuses on the public sector, following the significant involvement of various government ministries in the implementation of the project, and includes components of both a business proposal and product delivery mechanisms for making the BBCR tool readily available to end users (i.e. SMEs in flood-affected zones of Sri Lanka). Moreover, the project team also commenced discussions with private sector institutions interested in using the tool as part of specialised products targeting SMEs. Therefore, it is expected that the BBCR tool will soon be removed from the test-flight mode and be delivered to

end users as part of specialised products offer sector institutions in Sri Lanka.	red by either the public sector or priva	tε