

Piloting innovative financing for climate adaptation technologies in medium-sized cities

**Part I: Project Information** 

GEF ID 10433

**Project Type** MSP

**Type of Trust Fund** MTF

CBIT/NGI CBIT No NGI No

### **Project Title**

Piloting innovative financing for climate adaptation technologies in medium-sized cities

Countries

Global, Antigua and Barbuda, Mozambique, Lao PDR

Agency(ies) UNIDO

**Other Executing Partner(s)** UNEP, UN Habitat

**Executing Partner Type** GEF Agency

### **GEF Focal Area**

Climate Change

#### Taxonomy

Stakeholders, Gender Equality, Capacity, Knowledge and Research, Focal Areas, Influencing models, Climate Change Adaptation, Climate Change, Gender Mainstreaming, Disaster risk management, Small Island Developing States, Mainstreaming adaptation, Private sector, Climate finance, Least Developed Countries, Climate resilience, Deploy innovative financial instruments, Transform policy and regulatory environments, Demonstrate innovative approache, Strengthen institutional capacity and decision-making, Civil Society, Non-Governmental Organization, Communications, Awareness Raising, Public Campaigns, Education, Beneficiaries, Local Communities, Type of Engagement, Partnership, Consultation, Participation, Information Dissemination, Gender results areas, Capacity Development, Access and control over natural resources, Knowledge Generation and Exchange, Women groups, Gender-sensitive indicators, Sex-disaggregated indicators, Learning, Theory of change, Adaptive management

Sector Mixed & Others

**Rio Markers Climate Change Mitigation** Climate Change Mitigation 0

**Climate Change Adaptation** Climate Change Adaptation 2

Submission Date 5/21/2021

**Expected Implementation Start** 7/4/2022

**Expected Completion Date** 7/4/2025

Duration 36In Months

**Agency Fee(\$)** 64,315.00

### A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCA-1	Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	SCCF -A	225,667.00	623,260.00
CCA-1	Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	LDC F	112,834.00	291,740.00
CCA-2	Mainstream climate change adaptation and resilience for systemic impact	SCCF -A	225,666.00	623,261.00
CCA-2	Mainstream climate change adaptation and resilience for systemic impact	LDC F	112,833.00	291,739.00

Total Project Cost(\$) 677,000.00 1,830,000.00

#### **B.** Project description summary

### **Project Objective**

The project aims to develop an enabling mechanism for the target cities to access innovative and private CCA finance in the long run. This mechanism will be developed and piloted in one pilot country/city located in each key region of the Global South ? Africa, Asia-Pacific and Latin America & the Caribbean ? as well as in one pilot country/city of the LDC and of SIDS so that particularities of each of these categories of countries are fully taken into consideration.

Project	Financin	Expected	Expected	Trust	GEF Project	Confirmed
Component	д Туре	Outcomes	Outputs	Fund	Financing(\$)	Co-
						Financing(\$)

Project Component	Financin g Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
1. Municipal financing toolkit for climate change adaptation (CCA)	Technical Assistance	<b>1.1.</b> A financing toolkit for CCA to increase the planning capacities of policymakers from small and medium size cities	<b>1.1.1.</b> The financing toolkit for small and medium size cities is developed and disseminated. It includes tools to assess CCA technologies in urban planning and innovative financing	SCCF -A	233,663.00	264,460.00
			<b>1.1.2.</b> 60 municipal planners from 3 cities (20/ per city) trained in the municipal financing toolkit and climate finance			
			1.1.3. A set of high potential climate adaptation and resilience financing solutions are mapped out and prioritized based on their ability to support investment			
			<b>1.1.4.</b> Communic ation materials for knowledge management are developed and disseminated among NDEs and GEF Operational focal points			

Project Component	Financin g Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
1. Municipal financing toolkit for climate change adaptation (CCA)	Technical Assistance	<b>1.1.</b> A financing toolkit for CCA to increase the planning capacities of policymakers from small and medium size cities	1.1.1. The financing toolkit for small and medium size cities is developed and disseminated. It includes tools to assess CCA technologies in urban planning and innovative financing	LDC F	117,000.00	125,907.00
			1.1.2. 60 municipal planners from 3 cities (20/ per city) trained in the municipal financing toolkit and climate finance			
			1.1.3. A set of high potential climate adaptation and resilience financing solutions are mapped out and prioritized based on their ability to support investment			
			1.1.4. Communic ation materials for knowledge management are developed and disseminated among NDEs and GEF Operational focal points			

Project Component	Financin g Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)	
2. Piloting of the toolkit developed in Component 1	Technical Assistance	2.1. Selected climate adaptation and resilience financing methods are prioritized and adapted in three selected small and medium size cities	<ul> <li>2.1.1. Adaptation technology financing plans for 3 small and medium size cities are developed</li> <li>2.1.2. Investment projects are prioritized based on their adaptation impact, attractiveness to private sector and their financing options</li> </ul>	SCCF -A	140,000.00	793,367.00	
			<b>2.1.3.</b> Adaptation technology financing plans are presented to selected members of the financial community				
			<b>2.1.4.</b> 3 regional workshops are organized to present the toolkit and city case studies to their respective regions				

Project Component	Financin g Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
2. Piloting of the toolkit developed in Component 1	Technical Assistance	2.1. Selected climate adaptation and resilience financing methods are prioritized and adapted in three selected small and medium size cities	2.1.1. Adaptation technology financing plans for 3 small and medium size cities are developed 2.1.2. Investment projects are prioritized based on their adaptation impact, attractiveness to private sector and their financing options	LDC F	70,000.00	377,722.00
			2.1.3. Adaptation technology financing plans are presented to selected members of the financial community			
			2.1.4. 3 regional workshops are organized to present the toolkit and city case studies to their respective regions			

Project Component	Financin g Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
3. Project monitoring and learning	Technical Assistance	<b>3.1.</b> Regular project monitoring and documentation for learning and knowledge sharing	<ul> <li>3.1.1. The project monitoring plan is designed and executed</li> <li>3.1.2. Knowledge materials and documentation on best practices developed and widely disseminated to beneficiary cities and through CTCN network</li> <li>3.1.3. The lessons learned from the adoption of the toolkit are captured and used for iterative strengthening</li> </ul>	SCCF -A	18,000.00	26,420.00

Project Component	Financin g Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
3. Project monitoring and learning	Technical Assistance	<b>3.1.</b> Regular project monitoring and documentation for learning and knowledge sharing	<ul> <li>3.1.1. The project monitoring plan is designed and executed</li> <li>3.1.2. Knowledge materials and documentation on best practices developed and widely disseminated to beneficiary cities and through CTCN network</li> <li>3.1.3. The lessons learned from the adoption of the toolkit are captured and used for iterative strengthening</li> </ul>	LDC F	6,000.00	12,591.00
4. Project Evaluation	Technical Assistance	<b>4.1.</b> Project Evaluation	<b>4.1.1.</b> Terminal independent project evaluation is conducted and follow up actions and recommendations are determined for long term project sustainability	SCCF -A	19,000.00	52,942.00

Project Component	Financin g Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co- Financing(\$)
4. Project Evaluation	Technical Assistance	<b>4.1.</b> Project Evaluation	<b>4.1.1.</b> Terminal independent project evaluation is conducted and follow up actions and recommendations are determined for long term project sustainability	LDC F	12,667.00	12,593.00
			Sub T	otal (\$)	616,330.00	1,666,002.00
Project Mana	gement Cos	t (PMC)				
	SC	CF-A	40,670.	00		109,332.00
	Ι	LDCF	20,000.	00		54,666.00
	Sub To	tal(\$)	60,670.	00	1	63,998.00
Tota lease provide j	al Project Co ustification	ost(\$)	677,000.	00	1,8	30,000.00

Sources of Co- financing	Name of Co- financier	Type of Co- financing	Investment Mobilized	Amount(\$)
GEF Agency	UNIDO	Grant	Investment mobilized	30,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	100,000.00
Recipient Country Government	Antigua and Barbuda	In-kind	Recurrent expenditures	150,000.00
Other	CTCN	In-kind	Recurrent expenditures	150,000.00
Other	UN-Habitat	In-kind	Recurrent expenditures	350,000.00
Other	CTCN	Grant	Investment mobilized	150,000.00
Recipient Country Government	Mozambique	Grant	Investment mobilized	300,000.00
Recipient Country Government	Mozambique	In-kind	Recurrent expenditures	150,000.00
Recipient Country Government	Lao PDR	Grant	Investment mobilized	300,000.00
Recipient Country Government	Lao PDR	In-kind	Recurrent expenditures	150,000.00

#### C. Sources of Co-financing for the Project by name and by type

#### Total Co-Financing(\$) 1,830,000.00

#### Describe how any "Investment Mobilized" was identified

The investment was discussed with each city, as well as each executing entity and with UNIDO acting as implementing agency. The repartition of the funds has been amended and corresponds to the co-financing letters received before the approval of the proposal. UN Habitat has delivered a co-financing letter for 350,000 USD. UN Habitat will be an executing entity. UN Habitat has local offices in each of the 3 countries that have been selected for this proposal. All co-financing letters can be found in Annex K.

Agenc y	Trust Fund	Country	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNIDO	SCCF -A	Antigua and Barbuda	Climat e Change	NA	451,333	42,877	494,210.00
UNIDO	LDC F	Lao PDR	Climat e Change	NA	112,833	10,719	123,552.00
UNIDO	LDC F	Mozambiqu e	Climat e Change	NA	112,834	10,719	123,553.00

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Total Grant Resources(\$) 677,000.00 64,315.00 741,315.00

### E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No** Includes reflow to GEF? **No**  F. Project Preparation Grant (PPG) PPG Required true

**PPG Amount (\$)** 50,000

**PPG Agency Fee (\$)** 4,750

Agenc y	Trust Fund	Country	Focal Area	Programmin g of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNIDO	SCCF -A	Antigua and Barbuda	Climat e Change	NA	33,333	3,167	36,500.00
UNIDO	LDC F	Lao PDR	Climat e Change	NA	8,333	791	9,124.00
UNIDO	LDC F	Mozambiqu e	Climat e Change	NA	8,334	792	9,126.00
			Total F	Project Costs(\$)	50,000.00	4,750.00	54,750.00

## **Meta Information - LDCF**

LDCF true

SCCF-B (Window B) on technology transfer **false** SCCF-A (Window-A) on climate Change adaptation **false** 

Is this project LDCF SCCF challenge program? true

This Project involves at least one small island developing State(SIDS). false

This Project involves at least one fragile and conflict affected state. false

This Project will provide direct adaptation benefits to the private sector. true

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). **false** 

This Project has an urban focus. true

This Project covers the following sector(s)[the total should be 100%]:\*

Agriculture	0.00%
Natural resources management	15.00%
Climate information Services	14.00%
Costal zone management	14.00%
Water resources Management	14.00%
Disaster risk Management	15.00%
Other infrastructure	14.00%
Health	14.00%
Other (Please specify:)	0.00%
Total	100%

This Project targets the following Climate change Exacerbated/introduced challenges:\*

Sea level rise true

Change in mean temperature true

Increased Climatic Variability true

Natural hazards false

Land degradation **false** 

Costal and/or Coral reef degradation false

GroundWater quality/quantity false

To calculate the core indicators, please refer to Results Guidance

## **Core Indicators - LDCF**

CORE INDICATOR 1	Total	Male	Female	% for Women
Total number of direct beneficiaries	587,300	294,120	293,180	49.92%
<b>CORE INDICATOR 2</b> Area of land managed fo climate resilience (ha)	<sup>r</sup> 34,104.00	)		
<b>CORE INDICATOR 3</b> Total no. of policies/plans that will mainstream climate resilience	s 2			
CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained	622	432	190	30.55%

### **OUTPUT 1.1.1**

Physical and natural assets made more resilient to climate variability and change

Total number of direc	t	Male	Female
beneficiaries from more resilient physical assets	587,300	294,120	293,180
Ha of agriculture land	Ha of urban landscape <b>34,104.00</b>	Ha of rural landscape	No. of residential houses <b>0</b>
No. of public buildings <b>0</b>	No. of irrigation or water structures <b>0</b>	No. of fishery or aquaculture ponds <b>0</b>	No. of ports or landing sites <b>0</b>
Km of road	Km of riverban	Km of coast	Km of storm water drainage
Other <b>0</b>	Other(unit)	Comments	

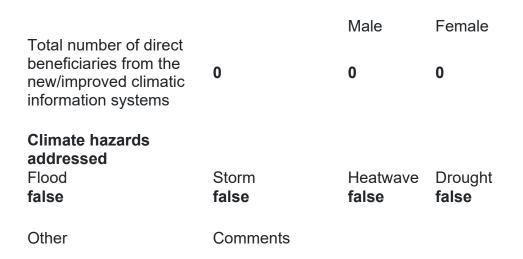
### **OUTPUT 1.1.2**

Livelihoods and sources of income of vulnerable populations diversified and strengthened

		Male	Female
Total number of			
direct beneficiaries			
with diversified and strengthened	0	0	0
•			
livelihoods and			
sources of income			

### Livelihoods and sources of incomes strengthened / introduced

Agriculture	Agro- Processing	Pastoralism/diary	Enhanced access to markets
false	false	false	false
Fisheries /aquaculture <b>false</b>	Tourism /ecotourism <b>false</b>	Cottage industry false	Reduced supply chain <b>false</b>
Beekeeping	Enhanced opportunity to employment	Other	Comments
false OUTPUT 1.1.3	false	false	
New/improved climate information systems deployed to reduce vulnerability to climatic hazards/variability			



false

Climate information system developed/strengthene			
Downscaled Climate model	Weather/Hydrome station	et warning system	Other
false	false	false	false
Comments			
Climate related information collected			
Temperature	Rainfall	Crop pest or disease	Human disease vectors
false	false	false	false
Other false	Comments		
Mode of climate information disemination			
Mobile phone apps	Community radio	Extension services	Televisions
false	false	false	false
Leaflets false OUTPUT 1.1.4	Other false	Comments	
Vulnerable natural e climate change impa	-	igthened in	response to

Types of natural ecosystem

Grassland

false	false	false	false
Forest	Inland water	Other	Comments
<b>false</b>	<b>false</b>	<b>false</b>	

# OUTPUT 1.2.1 Incubators and accelerators introduced

Total no. of entrepreneurs <b>0</b> supported	Male	Female
No. of incubators and accelerators supported	Comments	
No. of adaptation technologies supported	Comments	

## **OUTPUT 1.2.2**

## Financial instruments or models to enhance climate resilienced developed

Financial instruments or models PPP models false	Cooperatives <b>false</b>	Microfinance <b>false</b>	Risk insurance <b>false</b>
Equity	Loan	Other	Comments

false false false

### OUTPUT 2.1.1 Cross-sectoral policies and plans incorporate adaptation considerations

Will mainstream climate resilience	Of which no. of regional policies/plans	Of which no. of national policies/plar	ı
0	0	2	
Sectors Agriculture false	Fishery <b>false</b>	Industry <b>false</b>	Urban <b>false</b>
Rural <b>false</b>	Health <b>false</b>	Water <b>false</b>	Other <b>false</b>

Comments

### **OUTPUT 2.1.2**

Cross sectoral institutional partnerships established or expanded

No. of institutional partnerships established or strengthened

0

Comments

### **OUTPUT 2.1.3**

## Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks **0** 

Comments

### **OUTPUT 2.1.4**

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks **0** 

Comments

### OUTPUT 2.2.1 No. of institutions with increased ability to access and/or manage climate finance

No. of institution(s)

Comments

### **OUTPUT 2.2.2**

## Institutional coordination mechanism created or strengthened to access and/or manage climate finance

No. of mechanism(s)

Comments

### OUTPUT 2.2.3 Global/regional/national initiatives demonstrated and tested early concepts with high adaptation potential

No. of initiatives or technologies

Comments

### OUTPUT 2.2.4 Public investment mobilized

Amount of investment (US\$)

Comments

## OUTPUT 2.2.5 Private investment mobilized

Amount of investment (US\$)

Comments

## OUTPUT 2.3.1 No. of people trained regarding climate change impacts and appropriate adaptation responses

Total no. of people trained	622	Male <b>432</b>	Female <b>190</b>
Of which total no. of people at line ministries	622	Male <b>432</b>	Female <b>190</b>
Of which total no. of community/association	0	Male <b>0</b>	Female <b>0</b>

Of which total no. of extension service officers	0	Male <b>0</b>	Female <b>0</b>
Of which total no. of hydromet and disaster risk management agency staff	0	Male 0	Female <b>0</b>
Of which total no. of small private business owners	0	Male <b>0</b>	Female 0
Of which total no. school children, university students	0	Male 0	Female 0

Other Comments

### **OUTPUT 2.3.2**

No. of people made aware of climate change impacts and appropriate adaptation responses

		Male	Female
No. of people with raised awareness	0	0	0

Please describe how their awareness was raised

**OUTPUT 3.1.1** 

National climate policies and plans enabled including NAP processes by stronger climate information decision-support services

No. of national climate policies and plans

Comments

### **OUTPUT 3.1.2**

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks

Comments

## OUTPUT 3.1.3 Vulnerability assessments conducted

No. of assessments conducted

Comments

### OUTPUT 3.2.1 No. of institutions with increased ability to access and/or manage climate finance

No. of institution(s)

Comments

OUTPUT 3.2.2 Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance

No. of mechanism(s)

Comments

## **OUTPUT 3.2.3**

### Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential

No. of initiative(s) or technology(ies)

Comments

## **OUTPUT 3.3.1** No. of people trained regarding climate change impacts and appropriate adaptation responses

Total no. of people trained	0	Male <b>0</b>	Female <b>0</b>
Of which total no. of people at line ministries	0	Male	Female
Of which total no. of community/association	0	Male	Female
Of which total no. of extension service officers	0	Male	Female
Of which total no. of hydromet and disaster risk management agency staff	0	Male	Female
Of which total no. of small private business owners	0	Male	Female
		Male	Female

Of which total no. school children, university students **0** or teachers

Other

Comments

### **OUTPUT 3.3.2**

## No. of people made aware of climate change impacts and appropriate adaptation responses

		Male	Female
No. of people with raised awareness	0		
Please describe how their			

## **Meta Information - SCCF**

awareness was raised

LDCF **false** SCCF-B (Window B) on technology transfer **false** SCCF-A (Window-A) on climate Change adaptation **true** 

Is this project LDCF SCCF challenge program?

true

This Project involves at least one small island developing State(SIDS). true

This Project involves at least one fragile and conflict affected state. false

This Project will provide direct adaptation benefits to the private sector. true

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). **false** 

This Project has an urban focus. true

This Project covers the following sector(s)[the total should be 100%]:\*

This Project targets the following Climate change Exacerbated/introduced challenges:\*

Sea level rise **true** 

Change in mean temperature true

Increased Climatic Variability true

Natural hazards false

Land degradation false

Costal and/or Coral reef degradation false

GroundWater quality/quantity false

## **Core Indicators - SCCF**

**CORE INDICATOR 1** Total Female % for Women Male Total number of direct 12,700 6,360 6,340 49.92% beneficiaries **CORE INDICATOR 2** Area of land managed for 8,030.00 climate resilience (ha) **CORE INDICATOR 3** Total no. of policies/plans that will mainstream 1 climate resilience **CORE INDICATOR 4** Female % for Women Male Total number of people 458 315 143 31.22% trained

### **OUTPUT 1.1.1**

Physical and natural assets made more resilient to climate variability and change

		Male	Female
Total number of dire	ct		
beneficiaries from	12,700	6,360	6,340
more resilient	12,700	0,500	0,540
physical assets			

Ha of agriculture land	Ha of urban landscape <b>8,030.00</b>	Ha of rural landscape	No. of residential houses <b>0</b>
No. of public buildings <b>0</b>	No. of irrigation or water structures <b>0</b>	No. of fishery or aquaculture ponds <b>0</b>	No. of ports or landing sites <b>0</b>
Km of road	Km of riverban	Km of coast	Km of storm water drainage
Other 0	Other(unit)	Comments	

### **OUTPUT 1.1.2**

Livelihoods and sources of income of vulnerable populations diversified and strengthened

Total number of direct beneficiaries		Male	Female
with diversified and strengthened livelihoods and sources of income	0	0	0
Livelihoods and sources of incomes strengthened / introduced			
Agriculture	Agro- Processing	Pastoralism/diary	Enhanced access to markets

false	false	false	false
Fisheries /aquaculture <b>false</b>	Tourism /ecotourism <b>false</b>	Cottage industry <b>false</b>	Reduced supply chain <b>false</b>
Beekeeping	Enhanced opportunity to employment	Other	Comments
false	false	false	
<b>OUTPUT 1.1.3</b>			
New/improved climate information systems deployed to reduce vulnerability to climatic hazards/variability			

Total number of direct		Male	Female
Total number of direct beneficiaries from the new/improved climatic information systems	0	0	0
Climate hazards addressed			
Flood	Storm	Heatwave	Drought
false	false	false	false
Other	Comments		
false			
Climate information system developed/strengthene	d		
		Larly	
Downscaled Climate model	Weather/Hydrome station	warning system	Other

false	false	false	false
Comments			
Climate related information collected Temperature	Rainfall	Crop pest or disease	Human disease vectors
false	false	false	false
Other false	Comments		
Mode of climate information disemination			
Mobile phone apps	Community radio	Extension services	Televisions
false	false	false	false
Leaflets false OUTPUT 1.1.4 Vulnerable natural e climate change impa	•	Comments	response to

Types of natural ecosystem

Desert	Coastal	Mountainous	Grassland
<b>false</b>	<b>false</b>	<b>false</b>	<b>false</b>
Forest	Inland water	Other	Comments
<b>false</b>	<b>false</b>	<b>false</b>	

**OUTPUT 1.2.1** 

### Incubators and accelerators introduced

Total no. of entrepreneurs <b>0</b> supported	Male	Female
No. of incubators and accelerators supported	Comments	
No. of adaptation technologies supported	Comments	
OUTPUT 1.2.2 Financial instruments or model developed	s to enhance	climate resilienced

Financial instruments or models			
PPP models	Cooperatives	Microfinance	Risk insurance
<b>false</b>	<b>false</b>	<b>false</b>	<b>false</b>
Equity	Loan	Other	Comments
<b>false</b>	<b>false</b>	<b>false</b>	

## OUTPUT 2.1.1

Cross-sectoral policies and plans incorporate adaptation considerations

Will mainstream climate resilience <b>0</b>	Of which no. of regional policies/plans <b>1</b>	Of which no. of s national policies/plar <b>0</b>	n
Sectors Agriculture false	Fishery <b>false</b>	Industry <b>false</b>	Urban <b>true</b>
Rural <b>false</b>	Health <b>false</b>	Water <b>false</b>	Other <b>false</b>

Comments

# OUTPUT 2.1.2 Cross sectoral institutional partnerships established or expanded

No. of institutional partnerships established or strengthened

0

Comments

OUTPUT 2.1.3 Systems and frameworks established for continuous monitoring, reporting and review of adaptation No. of systems and frameworks **0** 

Comments

## OUTPUT 2.1.4 Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks **0** 

Comments

#### **OUTPUT 2.2.1**

No. of institutions with increased ability to access and/or manage climate finance

No. of institution(s)

Comments

**OUTPUT 2.2.2** 

Institutional coordination mechanism created or strengthened to access and/or manage climate finance

No. of mechanism(s)

Comments

#### **OUTPUT 2.2.3**

#### Global/regional/national initiatives demonstrated and tested early concepts with high adaptation potential

No. of initiatives or technologies

Comments

# OUTPUT 2.2.4 Public investment mobilized

Amount of investment (US\$)

Comments

# OUTPUT 2.2.5 Private investment mobilized

Amount of investment (US\$)

Comments

# **OUTPUT 2.3.1**

# No. of people trained regarding climate change impacts and appropriate adaptation responses

Total no. of people trained	458	Male <b>315</b>	Female <b>143</b>
Of which total no. of people at line ministries	458	Male <b>315</b>	Female <b>143</b>
Of which total no. of community/association	0	Male <b>0</b>	Female <b>0</b>
Of which total no. of extension service officers	0	Male <b>0</b>	Female <b>0</b>
		Male	Female

Of which total no. of hydromet and disaster risk management agency staff	0	0	0
Of which total no. of small private business owners	0	Male <b>0</b>	Female <b>0</b>
Of which total no. school children, university students or teachers	0	Male <b>0</b>	Female 0

#### **OUTPUT 2.3.2**

Other

No. of people made aware of climate change impacts and appropriate adaptation responses

Comments

		Ma	le F	emale
No. of people with raised awareness	0	0	0	
awartiitss				

Please describe how their awareness was raised

#### **OUTPUT 3.1.1**

National climate policies and plans enabled including NAP processes by stronger climate information decision-support services

No. of national climate policies and plans

Comments

## OUTPUT 3.1.2 Systems and frameworks established for continuous monitoring, reporting and review of adaptation

No. of systems and frameworks

Comments

# OUTPUT 3.1.3 Vulnerability assessments conducted

No. of assessments conducted

Comments

# OUTPUT 3.2.1 No. of institutions with increased ability to access and/or manage climate finance

No. of institution(s)

Comments

## OUTPUT 3.2.2 Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance

No. of mechanism(s)

Comments

#### **OUTPUT 3.2.3**

Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential

No. of initiative(s) or technology(ies)

Comments

**OUTPUT 3.3.1** 

No. of people trained regarding climate change impacts and appropriate adaptation responses

Total no. of people trained	0	Male <b>0</b>	Female <b>0</b>
Of which total no. of people at line ministries	0	Male	Female
Of which total no. of community/association	0	Male	Female
Of which total no. of extension service officers	0	Male	Female
Of which total no. of hydromet and disaster risk management agency staff	0	Male	Female
Of which total no. of small private business owners	0	Male	Female
Of which total no. school children, university students or teachers	0	Male	Female
Other	Comments		

## OUTPUT 3.3.2 No. of people made aware of climate change impacts and appropriate adaptation responses

Male

No. of people with raised awareness **0** 

Please describe how their awareness was raised

Female

#### Part II. Project Justification

#### 1a. Project Description

#### describe any changes in alignment with the project design with the original pif

1 The proposal has been designed in accordance with the PIF and no substantive changes in the component structure have been applied in comparison with the PIF. Nonetheless, changes in the budget have been made, and while the total amounts indicated for the SCCF-A and LDCF funds remain the same, some portion of these funds has been reallocated among activities 3 and 4. During the PIF stage for the GEF grant, it was stated that USD 13,000 from the SCCF-A funds and USD 6,667 from LDCF funds would be used for activity 4. However, during the development of the proposal, it became obvious that this amount would not be sufficient to carry out the evaluation tasks properly. Therefore, it was decided to re-allocate USD 12,000 (USD 6,000 from SCCF-A and USD 6,000 from LDCF) to activity 4. These changes have been reflected in table B.

2 Antiqua and Barbuda, Lao PDR and Mozambique have provided endorsement letters signed by the current GEF OFP as well as co-financing letters for the project. All letters are attached to the submission as Annex K.

**3** The cities were selected in accordance with the GEF procedures. This proposal was selected as part of the GEF *Challenge Program for Adaptation Innovation*. Following this award, UNIDO, as implementing entity, contacted the respective countries to select the cities that should be considered for the project. Different factors were considered for the selection of the cities like their size (small to medium size), the fact that they are highly impacted with climate change, their low adaptive capacity, and weak access to climate finance. For the selection, the readiness of relevant stakeholders (local government officers) as well as their time availability and involvement were also considered to ensure an active participation. UN Habitat, as executing agency was also involved in the selection process through the respective local entities in the 3 countries.

4 More specifically, the cities of English Harbour (for Antigua and Barbuda), Chokwe (for Mozambique) and Kaysone Phomvihan (for Lao) were selected as the host cities of the project.

5 English Harbour is registered as a World Heritage Property city by the UNESCO because of the Antigua Naval Dockyard and its related archaeological site. Climate change consequences, like sea level rise would have an impact on the tourisms activities, the infrastructure, and the economy of the area. Since the 1950s, sea level in Antigua and Barbuda has been rising at a rate of 1.6 to 2.0 millimeters per year. Rising sea levels have led to challenges with freshwater availability on the island of Barbuda in particular. Saltwater intrusion caused by sea level rise impacts water usage for irrigation, livestock, and human drinking purposes. Tourism accounts for 60 to 75 percent of Antigua and Barbuda's gross domestic product and employs nearly 90 percent of the population. Climate change is a threat to beaches and marine resources in Antigua and Barbuda<sup>[1]</sup>. In addition, given that the private sector is highly involved in the harbor activities, it might represent a good opportunity to unlock private investments.

**6** The global index for risk management (INFORM) of 2021 very highly weight Mozambique (6.7) as the 10th most exposed country to natural and human hazard (6.4), very highly vulnerable (7.2) (socio-economic vulnerability and vulnerable groups) and very highly lack adaptive capacities (6.5) (institutional & infrastructure capacities). The country integrated context analysis conducted in 2017 revealed that high food insecure risk regions are mainly located in arid and

semi-arid provinces of central and southern part namely Tete, Sofala, Manica Inhambane and Gaza, including Mandlacaze, Chibuto, Chokwe and Massingir districts. (World Food Program, 2018).

7 Chokwe is exposed to the impacts of drought, recurrent cyclones, storms, and floods especially. The area is considered one of the most exposed to natural hazards in the country as it experiences cyclical flooding from the Limpopo River. In January of 2013, catastrophic floods barreled through the lower Limpopo valley and other parts of southern Mozambique, leaving a trail of despair that claimed the lives of 113 people and displaced some 172,600 people. Some villages were completely cut off, and others could only access roads by boat. Nhumaio?s community of Ch?kw? was hit particularly hard. In 2015, the City of Chokwe benefited from the pilot implementation of the City Resilience Action Planning (CityRAP) Tool. Therefore, the country decided it would be beneficial to implement this new project in a city that is already prepared for it and has experience in participating in similar projects.

**8** Kaysone Phomvihan is the second-largest city in Laos (after Vientiane Capital) and the provincial capital of Savannakhet Province. It also serves as an important trading post, connected with Thailand by the Second Lao-Thai Friendship Bridge over the Mekong River. Furthermore, it emerged as the focal point for development of secondary and tertiary industries in the province. Kaysone Phomvihane is vulnerable to climate-related hazards, and the urban area is susceptible to pluvial flooding. A case study for climate change resilience in Kaysone Phomvihane was conducted in 2015 supported by the ADB<sup>[2]</sup>. The case study drew on climate change and hydrological modeling with the Mekong River Commission and other partners to prepare the climate change profiles for Kaysone Phomvihane for the year 2050. The projected climate change impacts include an increase of rainfall in the wet season by 10% and by 13% in the dry season. Also expected are increases in temperatures with average maximum temperatures to increase by 2 °C in the dry season and 2.2 °C in the wet season. Similar to Chokwe, as the city of Kaysone Phomviham already participated in projects related to climate change, the implementation of a new project is expected to benefit from the past experiences.

Sources of Co-	Name of Co-	Type of Co-	Investment	PIF Amount	Current	Comments and
financing	financier	financing	Mobilized	(\$)	amount	explanations
GEF Agency	UNIDO	Grant	Investment mobilized	80,000	30,000	Co-financing letter annexed to the proposal.
GEF Agency	UNIDO	In-kind	Recurrent expenditure	200,000	100,000	Co-financing letter annexed to the proposal.
Government	Lao PDR	Grant	Investment mobilized	350,000	300,000	Co-financing letter annexed to the proposal.
Government	Lao PDR	In-kind	Recurrent expenditure	150,000	150,000	Co-financing letter annexed to the proposal.
Government	Mozambique	Grant	Investment mobilized	350,000	300,000	Co-financing letter annexed to the proposal.
Government	Mozambique	In-kind	Recurrent expenditure	150,000	150,000	Co-financing letter annexed to the proposal.
Government	Antigua and Barbuda	Grant	Investment mobilized	350,000	-	No co- financing letter received.

Government	Antigua and Barbuda	In-kind	Recurrent expenditure	150,000	150,000	Co-financing letter annexed to the proposal. No changes since PIF.
Others	CTCN	Grant	Investment mobilized	0	150,000	Co-financing letter annexed to the proposal. CTCN has decided to offer 150,000 USD in grant and 150,000 in kind instead of the 300,000 USD in kind planned at PIF stage.
Others	CTCN	In-kind	Recurrent expenditure	300,000	150,000	Co-financing letter annexed to the proposal. CTCN has decided to offer 150,000 USD in grant and 150,000 in kind instead of the 300,000 USD in kind planned at PIF stage.
Others	UNEP FI	In-kind	Recurrent expenditure	220,000	-	During the PPG phase, it has become apparent that the solo co- executing partner for this project would be UN-Habitat. The involvement of and cooperation with UNEP FI would be further pursued during and beyond the implementation phase.
Others	UN-Habitat	In-kind	Recurrent expenditure	-	350,000	UN Habitat is providing a letter of co- financing for 350,000 USD in-kind, thus a positive difference of +350,000 USD in comparison with the PIF.

Total Co-financing	2,300,000	1,830,000	
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1) <u>Global environmental and/or adaptation problems, root causes and barriers that need to</u> <u>be addressed (systems description)</u>

9 1.1 Climate related disasters are generating an increasing socio-economic damage in developing countries. Least Developed countries (LDC) and Small Island Developing States (SIDS) are amongst the most affected.

10 The world has witnessed a **tenfold increase in the number of natural disasters since the** 1960s. Data captured between 1900 and 2019 reveals a striking jump from 39 incidents in 1960 to 396 in 2019 (IED, 2020). Together, floods and storms account for 71 % of all the disasters that have occurred since 1990, and these disasters are directly influenced by changes in climate conditions, such as an increased frequency and intensity of rainfalls.

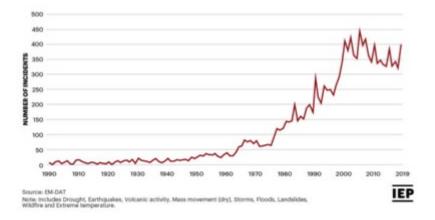


Figure 1 - Trend in the number of natural disasters, 1900 to 2019. Source: EM-DAT

Disaster Type	Number of disasters	Percentage
Distance type	(1990 - 2019)	00
Flood	4119	415%
Storm	2942	29.6%
Earthquake	818	8.2%
Landslide	551	5.6%
Extreme temperature	524	5.3%
Drought	475	4.8%
widfire	341	3.4%
Volcanic activity	154	1.6%
Total	9924	100%

Figure 2 - Number of natural disasters by type, 1900 to 2019. Source: EM-DAT

**11** The Global South is by far the most affected by these disasters. Asia-Pacific was hit by 29 % of global natural disasters in the last 30 years (up to 2019). Across the region, the majority of countries are at a high risk of floods. In the Sub-Saharan Africa, 33 countries out of 46 countries face a medium to a high exposure. Within the region, Mozambique and Namibia both face the highest exposure to climate related risk (IED, 2020).

12 Climate related disasters have already caused significant economic losses worldwide. Developing countries are particularly affected by such losses because they are more vulnerable to the damaging effects of a hazard and have a lower coping capacity. In 2019, 8 out of the 10 countries most affected by impacts of extreme weather events in quantified terms belong to the low- and middle-income category, and half of them are Least Developed Countries (LDC) (Germanwatch e.V, 2021). Most recently, climate related disasters produced losses worth of USD 210 billion in year 2020 (Munich RE, 2021). This showcases an alarming acceleration compared to previous years. From 1998 to 2017, total economic losses associated with climate related disasters were estimated at USD 2,245 billion. Overall, the reported losses associated to extreme weather events rose by 151% over the last two decades (UNIDSR, CRED, 2018).

13 In addition, the **COVID-19 pandemic** emerged in 2020 is expected to significantly influence the countries? ability to plan for, finance and implement climate change adaptation (CCA) actions in response to current and future climate impacts. The finance gap for climate adaptation is at risk of widening in future years because of the fiscal drain on resources resulting from the pandemic. Developing countries are especially vulnerable as they bear a disproportionate weight of climate disasters while their fiscal space is more limited, their credit ratings more at risk, and hence their borrowing capacity more constrained (UNEP, 2021).

LDCs and SIDS are at a greater risk compared to other developing countries

14 LDC and SIDS represent the most vulnerable groups of countries in the Global South that are projected to be the worst hit by climate change. As per the UN, SIDS are a group of 52 lowlying coastal countries sharing similar developmental challenges. For example, the borders of SIDS are essentially low-lying coastal areas that are affected by the rising sea levels as a result of the global warming. LDC are low-income countries also sharing a number of common structural challenges preventing a steady sustainable development. They are highly vulnerable to economic and environmental shocks and are characterized by limited human assets. As of today, 46 countries are listed as being an LDC (UN, 2021).

**15** The economies of SIDS are small and often not diversified, which leaves them more exposed to adverse economic effects. Similarly, LDCs have less capacity to protect and rebuild their economies and societies due to an early stage of their economic development. For example, the proportional impact of storms in a Small State (SS) is 16.1, while it is 0.7 in larger countries, making it up to 23 times more damaging in terms of a GDP share as shown below:

	Damages (U	S\$) 1/	Damages / GDP (%)		Affected / Pop (%	
	Non-SS	SS	Non-SS	SS	Non-SS	SS
Drought	1,071	67	1.2	2.0	12.2	35.4
Earthquake	2,231	128	1.4	12.3	0.5	2.0
Extreme temperature	1,357	3	0.8	0.5	1.3	0.7
Flood	577	37	0.4	3.1	0.7	5.5
Storm	756	100	0.7	16.1	0.7	11.2
Volcanic activity	173		0.8		0.2	6.7
Wildfire	575	32	1.1	14.5	0.3	0.4
Other	178		0.8		0.1	1.0
Total	849	87	0.7	12.9	1.1	9.8

Sources: EM-DAT; WEO; WDI; and IMF staff calculations.

1/ In 2010 constant US dollars.

Figure 3: Average economic cost of natural disasters by type 1950-2014. Source: IMF, 2016

16 Considering the projected climate related future vulnerabilities, the cost of the effects of climate change to these countries is likely to be phenomenal. As of today, 1 in 10 natural disasters cost the Caribbean SIDS about 30% of their GDP as compared to less than 1% for larger countries (Mycoo, 2018). From 1950 to 2014, natural disasters cost the Caribbean region nearly USD 53 billion in quantified damages (CRED, 2015). In the future, a 1-meter sea level rise by 2080 is likely to cost the Caribbean SIDS nearly 8% of their projected GDP (UN-OHRLLS, 2017) and the Pacific Island States from 2.9% to as high as 12.7% of their projected GDP (Asian Development Bank, 2013).

17 In response to the above, the international climate change adaptation finance (CCA finance) pool is growing but remains a very small share of the assessed needs. As estimated by UNEP, the adaptation cost will reach an annual amount of USD 140 billion to USD 300 billion by 2030 and USD 280 billion to USD 500 billion by 2050. Current data suggests that developing countries alone require an annual adaptation cost of USD 70 billion (UNEP, 2021). In comparison, available CCA finance was of USD 30 billion in 2017/2018, though it registered a significant increase of 35% from 2015/2016 due to continuous commitments from Development Finance Institutions (DFI), such as the Adaptation Fund (AF), the Green Climate Fund (GCF), the Global Environmental Facility (GEF), the World Bank or the regional development banks. Over 50% of the projects initiated after 2015 by the Adaptation Fund, the Green Climate Fund and the Global Environment Facility targeted the LDC and over 15 % of them targeted SIDS (UNEP, 2021).

18 In addition, over 75 % of the funds have been spent in the source country itself showing a strong domestic preference (CPI, 2019). This generates large disparities in access to CCA finance. For example, East Asia and the Pacific channel 35% of all the global CCA funds whereas South Asia has access to 13% and Latin America to only 11%. LDC and SIDS hence have a very low access rate to the global CCA finance since they are in general unable to mobilize the required amounts domestically.

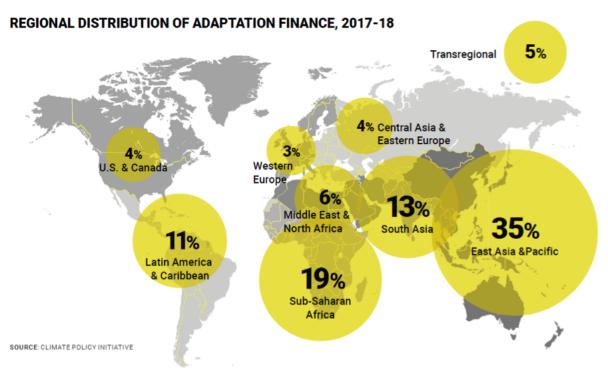


Figure 4: Regional distribution of adaptation finance. The distribution combines public and private funds. Source: CPI, 2019

**19** Importantly, climate finance remains largely dominated by climate change mitigation finance, which represented 93% of climate finance in 2017/2018 (CPI, 2019). Climate adaptation hence receives a very modest share of climate finance.

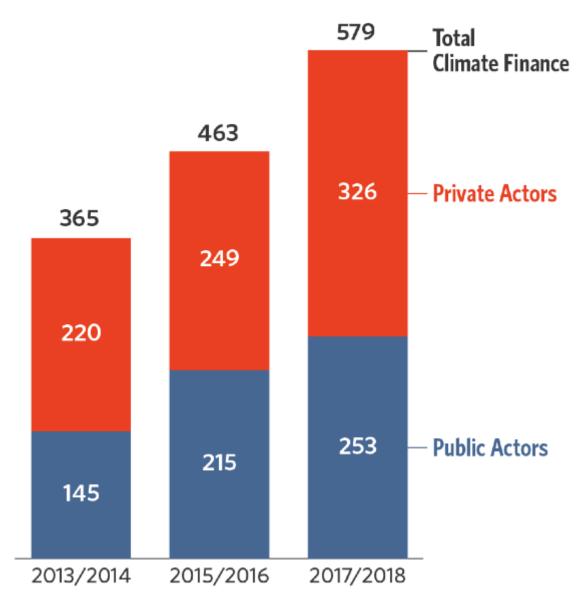


Figure 5- Global climate finance flows by public and private actors, 2013-2018 (2 year average), in USD billions. Source: CPI, 2019

**20** This conclusion is further supported by the fact that **private climate finance dominates over public climate finance**. Over 2017/2018, the share of average annual public climate finance totaled USD 253 billion, representing 44%, while private climate finance reached USD 326 billion and 56% of the overall pool.

**21** Developing countries do not have access to private finance easily as compared to the developed countries. For example, according to the Global Landscape of Climate Finance 2019, over 2017/2018:

22 - Private sector entities dominated climate finance in the Americas (Canada, Chile, Colombia, Mexico, and the United States) Israel, Japan, Oceania and South Korea; Western Europe, East Asia & Pacific and South Asia had an almost equal split of public and private funds received. In all other regions, public entities were the primary sources of climate finance.



Figure 6: Destination region of climate finance, by public/private (USD billion, 2017/2018 annual average). Source: CPI, 2019

**3** The **continued dependency on public funds among developing countries** calls for a radical change because of the growing CCA finance needs in these countries. Closing this adaptation finance gap requires transformational actions. While public finance plays a pivotal role in creating long-term climate resilience and establishing enabling conditions, private finance is needed to complement public finance inputs and bridge the existing finance gap.

1.2 Small and medium size cities in developing countries bear a significant portion of climate related damages

24 Urban populations in developing countries are at the forefront of climate vulnerabilities and CCA finance needs identified above. This is due to the fact that the Global South is rapidly urbanizing. According to the World Resources Institute (WRI), population in most cities in Africa and South Asia will grow by 30 to 100% between 2015 and 2030, and by 15 to 100% in most cities of Latin America and South East Asia (Figure 6). At the same time, cities located in developing countries are particularly vulnerable to climate risks. For example, over 410 million Asian urban dwellers will be at risk of coastal floods by 2025 and 19 of the 25 world cities most exposed to a 1-meter sea-level rise by 2100 are in Asia, with 7 cities in the Philippines alone.

**25 Rapid urbanization heavily increases climate risks in cities**. While cities represent only 2% of the planet?s landmass, they hosted 55% of the world?s population as of 2018 (UN, 2018).

This means that large numbers of people are concentrated on a small territory with reduced natural ecosystems. The latter results in increased floods, coastal inundation, droughts, amplified heat waves, an extreme weather volatility and an increase in vector borne diseases (CDP, 2019). The effect of such extremities is felt by a large portion of the population living in cities. The report on Cities at Risk: Dealing with the Pressures of Climate Change indicated that, in 2018, 85% of cities reported major climate-related disruptions such as flash floods and floods, heat waves and droughts (CDP, 2019). In particular, nearly 60% of the cities with a population of 300,000 or less are under a high exposure to natural disasters.

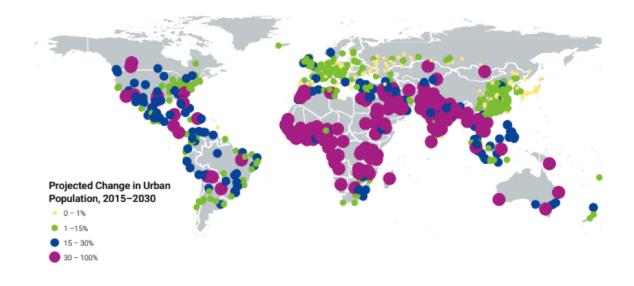


Figure 7: Projected growth rates of urban agglomerations, 2015?2030. Source: WRI, 2019

**26** Small and medium size cities represent an important share of the existing and growing urban population. Nearly half of the world?s urban dwellers live in small and medium cities of 500,000 inhabitants or less (about 2 billion as of 2018) and over 40% of them live in cities with less than 300,000 inhabitants (Figure 8). ?? Population in medium size cities has nearly doubled between 1990 and 2018 and may increase by 28% in the period of 2018 ? 2030, growing from 926 million to 1.2 billion (UN DESA, 2019). Small and medium size cities are therefore of particular importance when it comes to building urban climate resilience.

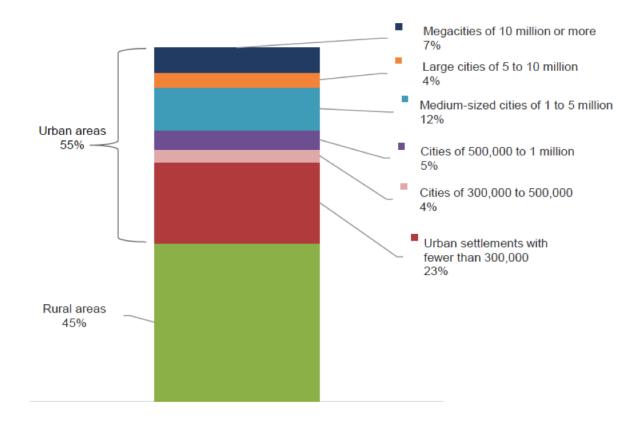


Figure 8: World population by areas of residence, 2018. Source: UN, 2019

1.3 Small and medium size cities hence face rapidly growing CCA finance needs, but have access to a very limited share of it

27 According to the latest Global Landscape of Climate Finance report by the Climate Policy Initiative (2019), urban CCA finance is a very small percentage of the overall CCA finance. Of the USD 30.8 billion in annual adaptation finance tracked in 2017-18, **only 5% were directed into cities** (USD 1.7 billion). The World Bank however estimates that, by 2050, between USD 11 and 20 billion will be needed on an annual basis to protect global urban infrastructure from climate risks (WRI, 2019).

**28** Further, small and medium size cities receive a tiny share of the urban CCA finance while they host the majority of the urban population. While there is no data showcasing how CCA finance is shared between cities of different sizes, the World Bank estimated that only a small percent of the 500 largest cities in developing countries are deemed creditworthy: 4% in international financial markets and 20% in local markets (World Bank, 2013). The creditworthiness challenge disproportionately impacts cities in developing and emerging economies and, a fortiori, small and medium size cities.

**29** The above leads to concluding that small and medium size cities in developing countries and, a fortiori in LDC and SIDS (hence forward referred to as target cities), face high vulnerabilities to climate change while they have the lowest possible access to CCA finance. It is hence critical to channel CCA finance into these cities in order to prevent a large portion of the world?s population from being heavily affected by climate change in the near and intermediate future.

#### 1.4 Threats and root causes

**30** Urban climate vulnerabilities come from an increasing global warming layered over an unsustainable growth pattern. This pattern is characterized by a rapid land cover change, by an infrastructure development that does not incorporate climate resilience and by urban settlements rapidly growing in highly climate risk exposed areas of the city. The latter particularly hits the urban poor. For example:

**31** Land cover change: Cities such as Bangalore and Chennai have respectively lost 80% and 90% of their water bodies in the last 4 decades (CSE, 2016). As a consequence, Bangalore regularly faces severe floods since 2000 (IISC, 2017) and the massive 2015 flood in Chennai caused an estimated damage of USD 2.2 billion. After 50% of Manila was flooded in 2012, experts referred to an unplanned city expansion and mismanagement of natural ecosystems as reasons for the disaster to occur (de Leon, 2012).

**32 Growing vulnerabilities of the urban poor**: As per UN Habitat, over 40% of South Asian urban population lives in slums. Informal settlements tend to crop up in environmentally vulnerable areas: river or lake banks, steep slopes or low-lying coastal zones. Disaster related costs for the urban poor are tremendous because the urban poor lack health and property insurance while the quality of their housing is the least resilient to extreme weather events (Feiden, 2011).

**33** At the same time, **basic infrastructure and housing needs in the Global South are tremendous**. According to the Global Infrastructure Basel Foundation, 75% of the infrastructure that will exist in 2050 doesn?t exist today. A major portion of this infrastructure will be built in the Global South. For example, the Asian Development Bank (ADB) estimates that, between 2010 and 2020, over USD 8 trillion will need to be invested into infrastructure in Asia (ADB, 2009). In addition, the World Bank estimated that USD 11 billion to USD 20 billion would be needed annually to safeguard urban infrastructure against climate risk, which at present is not being fulfilled (WRI, 2019). Integrating climate adaptation measures into rapid infrastructure urban development in the Global South is hence absolutely critical.

**34** This integration, in turn, requires cities to have the capacity to accurately assess causes of their climate vulnerabilities, develop and integrate climate adaptation measures into city plans, and secure adequate finance to implement these measures. These requirements are however not met in most small and medium size cities of the LDC and the SIDS. Larger cities in countries with more robust economies often have a dedicated entity or human resources to undertake climate action and mainstream it into various city development activities. They also often benefit from established mechanisms to access loans and private funds.

**35 Small and medium size cities, on the other hand, lack such critical enablers**. Operating under a very reduced technical staff capacity, they often do not have in-house climate risk specialists. As a result, climate risk is not mainstreamed into city development plans, which leads to generating further vulnerabilities, for example by allowing development in climate hazard prone areas. Similarly, climate risk is not integrated and budgeted under these cities? municipal expenditure plans and their capital investment plans. Finally, LDC and SIDS often have a low national credit rating, which make it very hard for these countries and, a fortiori, for small and medium size cities in these countries, to access any CCA finance beyond conventional development assistance mechanisms.

2) Baseline scenario and associated baseline projects

**36** While small and medium size cities in developing countries are highly vulnerable to climate risk, they also lack capacity to tackle this risk. In particular, they are neither in a position to localize national climate adaptation planning efforts or to lead these efforts at the local level, nor in a position to independently tap into CCA finance mechanisms.

2.1 Challenge with localising climate adaptation planning at the municipal level

37 The last two decades have seen significant progress in CCA planning at the national level in developing countries. Over 72 % of countries have at least one national level planning instrument in place that addresses adaptation, and 125 developing countries have begun the process of formulating and implementing National Adaptation Plans (NAP). Countries have also increasingly institutionalized sectorial (58% countries) or subnational (21% countries) adaptation planning instruments (UNEP, 2021). However, further efforts are required at the national level. For example, while most countries have set adaptation planning criteria, half of them lack implementation measures as well as monitoring and evaluation frameworks. (UNEP, 2021)

**38** Further, mainstreaming national adaptation targets and policies into sub-national levels, including the municipal level, has revealed particularly challenging. For example, Bangladesh implemented various initiatives to address climate change impacts. United Nations Development Program (UNDP) facilitated climate change mainstreaming into national and sub-national guidelines and development processes. The score matrix for mainstreaming the objectives of the National Adaptation Plan into the Dhaka Structure Plan (2016-2035) was assessed at 61.5%, which is a moderate level of mainstreaming. In addition, it was analyzed that climate finance provisions were not included into this plan and that institutional mapping, stakeholder engagement, climate change risk assessment and capacity building were not well integrated (Urban Science, 2020).

**39** One of the key barriers preventing cities from effectively localizing and implementing national adaptation plans is a lack of capacity in mainstreaming CCA into various city plans ? such as a master plan, a city development plan or city sectorial plans ? and in mainstreaming CCA into the city capital expenditure plan. Both are required to **tackle the financial gap in urban adaptation finance.** 

**40** 2.2.1 Developing countries? access to CCA finance largely depends on public development finance

41 Developing countries face a particularly steep fiscal challenge amid increased emergency spending, irregular or declining tax revenues, oncoming debt payments, and a decline in global trade. Adaptation costs may be higher for developed countries in absolute terms, but the burden is higher for developing countries relative to their gross domestic products, adding to their generally more constrained financial, technical and human capacities. The target cities, hence, a fortiori, have a very limited CCA finance pool of opportunities, which essentially concentrate on public development finance procured through the national level.

**42** A few international DFI dominate the scene of the development CCA finance. The Green Climate Fund (GCF), the Global Environment Facility (GEF), in particular through the LDCF and the SCCF, the Pilot Program for Climate Resilience (PPCR) and the Adaptation Fund are most active CCA finance providers in the developing countries (Figures 9 and 10) (Climate Funds Update , 2020). Several developed countries have also established climate finance initiatives or are channeling climate finance through their bilateral development assistance institutions. Many developing countries have also set up regional and national funds and channels to receive climate finance.

Fund	Pledged	Deposited	Approved	Projects approved
Green Climate Fund (GCF)	10,319.6	8,144.7°	1,288.1	52
Least Developed Countries Fund (LDCF)	1,463.5	1,411.5	1,161.0	263
Pilot Program for Climate Resilience (PPCR)	1,144.8	1,144.8	988.1	67
Adaptation Fund (AF)	956.6	890.7	720.5	207
Adaptation for Smallholder Agriculture Programme (ASAP)	381.7	330.3	291.2	42
Special Climate Change Fund (SCCF)	377.4	369.0	279.4	68
Global Environment Facility Trust Fund 7 (GEF 7)	654.2	654.1	48.3	8

Figure 9: Multilateral funds supporting adaptation (2003-2019, USD millions). Source: Climate Funds Update 2020

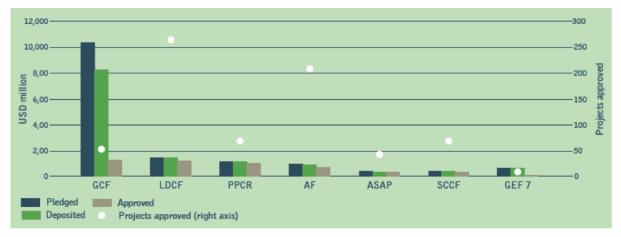


Figure 10: Multilateral Climate Funds supporting Adaptation (2003-2019). Source: Climate Funds Update 2020

2.2.2 LDC and SIDS heavily rely on public development finance while they can hardly access private and innovative CCA finance sources

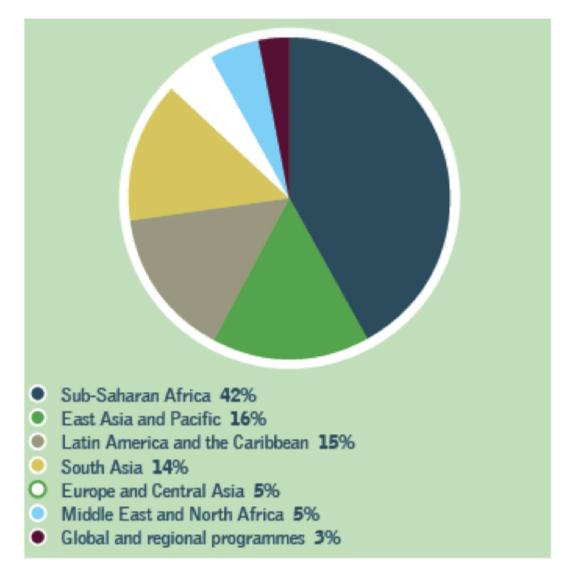


Figure 11: Regional distribution of approved adaptation finance from major climate change funds (2003-2019). Source: Climate Funds Update 2020

**43** LDC and SIDS heavily rely on public CCA finance because of their very limited access to private and innovative financing mechanisms/instruments. All multilateral climate funds are particularly active in LDC and SIDS. According to the latest Climate Funds Update report, the regions which attract the largest share of global public CCA finance are: Sub-Saharan Africa (42% of the share), East Asia and the Pacific (16%), and Latin America and the Caribbean (15%), followed by programs and activities in South Asia (14%) and Europe and Central Asia (5%) (Climate Funds Update , 2020).

The Climate Funds Update report also highlights that the 39 SIDS nations have received USD 1,772 million from multilateral climate funds between 2003 and 2019. This amount financed 334 projects. In 2019, USD 110 millions was approved for CCA projects in SIDS.

45 Coming to private CCA finance, a recent OECD report highlighted that only 3% of mobilized private finance is directed towards helping developing countries adapt to climate impacts. It noted that private investments tend to either be directed towards higher income countries and cities or towards projects in which greenhouse gases (GHG) emissions reductions can be quantified. (OECD, 2019)

46 The challenges which private sector faces while providing climate finance in cities are: 1) limited support from municipal officials/city government, 2) unsupportive market environments for investment, 3) limited risk guaranty on returns, 4) limited technical and technological capacity, 5) weak legal and regulatory framework.

2.3 Baseline projects contributing to filling the gap

47 Though no project pursuing the exact objective of the present project was identified, the following projects relate to this objective to an extent:

#### **Baseline Projects (Global)**

Project Title	Implementing entities	Project description	Project Period	Complementarity with current proposal
Using systemic approaches and simulation to scale nature- based infrastructure for climate adaptation	UNIDO-GEF	Geographic coverage/ Focus: most of Africa and South Asia Details: The purposes of this project nature-based infrastructure refers to deliberately planned and managed natural ecosystems and working landscapes to: - enhance the delivery of ecosystem services including those that are analogous to public infrastructure - Enhance the delivery of co- benefits to human populations, - reduce the need to traditional grey infrastructure - serve as a substitute for traditional grey infrastructure - increase the efficiency of traditional grey infrastructure	2021	This initiative is complementary to the current proposal as it is implemented in Africa and South Asia that are also two continents in which this proposal will be implemented. This previous initiative also analyses adaptation measures to climate change on cities and infrastructure. Nonetheless, the current proposal will focus mainly on small and medium sized cities as well as on the financing mechanisms that could be used to support the implementation of adaptation measures, which will nicely complement this ongoing initiative.

#### Table 1: Baseline projects (global)

Toolkit to enhance access to adaptation finance	OECD and GEF	Geographic coverage/ Focus: The toolkit primarily focuses on enhancing access of the countries particularly vulnerable to climate change (including LDCs, SIDS and African states) to international climate finance trust funds, while recognizing that various domestic resources within those countries will also be important to finance and scale up	2014- 2019	This project will be considered in the design of the 6-tools sequenced financial toolkit, as it will provide previous guidelines on the development of a toolkit for adaptation finance in LDCs. The current proposal will complement this previous exercise, as it will focus on small and medium sized cities of LDCs and SIDS, which face high vulnerabilities to climate change while they have the lowest possible access to CCA finance.
		Details: The purpose of the toolkit is to outline a spectrum of tools that could help the countries navigate the evolving architecture of climate finance and seize opportunities for accessing CCA finance. The following six non- intrusive, non- prescriptive and non- exhaustive technical tools were identified as helpful to policy makers in navigating the evolving architecture of climate finance and seizing improved opportunities:		
		Identify the most relevant international financing channels. Support capacity development at the organizational level. Support and facilitate project and/or program preparation. Enhance domestic enabling environments to attract private and public finance. Foster lesson sharing and peer learning. Use the National Adaptation Plan (NAP) process		

ADB, IADB, GEF, UNDP, UNEP, The World Bank	Geographic coverage/ Focus: 24 cities in 9 countries (Argentina, Brazil, China, Costa Rica, India, Indonesia, Morocco, Rwanda, and Sierra Leone)	2021	The project covers developing countries and supports their selected cities in leveraging resources and bridging their sustainable infrastructure gaps. This direction is aligned with the proposed project?s
	Details: The objective of SCIP is to provide a global platform to the participating countries, which will help enhance urban sustainability through relevant policy and technical advisory support to cities. The program will engage global, national, and local level stakeholders into jointly contributing to a sustainable, inclusive, gender sensitive, and resilient urban development. Stakeholders such as UN agencies, multi- lateral development banks, the private sector, city networks, and other partners to support national and city governments in designing innovative solutions and implementable models fostering urban sustainability. The main components of the Program are:		objective. The proposed project will aim at disseminating its tools, knowledge and learning through the SCIP network as well as at interacting with the SCIP implementers from an early stage of its own implementation in order to integrate and build upon the knowledge accumulated through the ongoing SCIP.
	<ul> <li>Improved governance and evidence based integrated urban planning;</li> <li>Sustainable and integrated low carbon, resilient, conservation and land restoration investments in cities;</li> <li>Innovative</li> </ul>		
	GEF, UNDP, UNEP, The	GEF, UNDP, UNEP, The World Bank	GEF, UNDP, UNEP, The World Bankcoverage/ Focus: 24 cities in 9 countries (Argentina, Brazil, China, Costa Rica, India, Indonesia, Morocco, Rwanda, and Sierra Leone)Details: The objective of SCIP is to provide a global platform to the participating countries, which will help enhance urban sustainability through relevant policy and technical advisory support to cities.The program will engage global, national, and local level stakeholders into jointly contributing to a sustainable, inclusive, gender sensitive, and resilient urban development.Stakeholders such as UN agencies, multi- lateral development banks, the private sector, city networks, and other partners to support notions ind softening urban sustainability. The main components of the Program are:-Improved governance and evidence based integrated urban planning;-Sustainable and intregrated low carbon, resilient, conservation and land investments in cities;

Sustainable city development in Melaka, Malaysia	UNIDO, GEF, Malaysian Industry Government Group for High Technology	Geographic coverage/ Focus: Melaka and Malaysian cities in general	2019	This previous project will be considered during the implementation of the current proposal, mainly considering the project in Lao PDR as it may provide lessons learned and
		Details: The proposed child project will directly contribute to integrating climate risks in urban planning and management. This will be achieved through:		recommendations on the best way to increase investments into urban management in cities of Asia, as well as it could provide insights on innovative financial mechanisms. The current proposal will be complementary to this
		Support to the development of national urban policy frameworks, improved planning and management of Melaka,		project in Malaysia, as the final product will be a 6- tools sequenced financial toolkit adapted to small and medium sized cities of LDCs and SIDS that could be replicated to other territories. The current
		Increased investment into Melaka?s urban management modalities,		proposal plans to organize regional meetings to as well as disseminated knowledge materials in
		Increased knowledge and partnerships on sustainable cities in Malaysia.		different languages to ensure that the toolkit could be used in other cities of the selected countries as well as in
		Expected outcomes: Integrate climate risks into urban planning and management,		other countries of the selected regions.
		Develop incentives ? such as green procurement or PPP ? while building institutional capacity of policymakers at the national level,		
		Conduct awareness raising events for policymakers, industry and end- users.		

Climate Smart Capital Investment Plan (CIP)	The World Bank	Geographic coverage/ Focus: municipalities	This previous project is relevant as it was developed at municipal level and aimed at
		Details: A workbook on formulating capital investment plans was designed for subnational governments. It may be used to prioritize capital investments.	formulating capital investments plans, which is the results expected from activity 2.1.1.3 of the current proposal. The current proposal will complement the previous project as it will create a toolkit that will include a capital investment plans as well as 5 other tools to support small and medium sized cities of LDCs and SIDS to access CCA climate finance.

The Honiara Urban Resilience and Climate Action Plan (HURCAP)	United Nations Human Settlements Programme (UN-Habitat) under Cities and Climate Change Initiative (CCCI)	Geographic coverage/ Focus: Honiara, the capital city of the Solomon Islands Details: The Honiara Urban Resilience and Climate Action Plan (HURCAP) sets a methodological approach to adaptation planning and a portfolio of priority adaptation actions. Priority actions are identified through a participatory	2016	This previous project could provide relevant support to activities 1.1.3.2 ? Implement a toolkit to the selected cities; 2.1.1.1 ? Implementing Tool 3 ? Initiate a robust capital expenditure planning; 2.1.2.1 ? Prepare an overarching list of prioritized projects combining CCA projects and regular infrastructure projects with a CR component (Tool 3, Steps 11 and 12) which aim at prioritizing adaptation measures for urban cities. This proposal will be complementary to the
		planning process which screens 10 thematic areas: Urban planning and land development		previous programme as it will not only prioritize CCA measures but will also promote CCA finance through the development of a 6-tools sequenced
		Housing		financial toolkit.
		Infrastructure Water, sanitation and		
		waste		
		Ecosystem services and coastal processes		
		Human health and well-being		
		Communication: awareness and education		
		Livelihoods and behavior change		
		Disaster preparedness and response		
		Governance and partnerships		
		These categories help frame adaptation processes and actions at multiple scales across the city.		

Building urban climate resilience in South eastern Africa (Madagascar, Malawi, Mozambique, Union of Comoros)	UN-Habitat	Geographic coverage/ Focus: South eastern Africa (Madagascar, Malawi, Mozambique, Union of Comoros) Details: The project covers 4 countries: Madagascar, Malawi, Mozambique and Union of Comoros. The project aims to develop capacities to adapt to the adverse effects of climate change in vulnerable cities of the participating countries. Chokwe is the first pilot city to implement the CityRAP Tool, designed by UN- Habitat in partnership with DiMSUR as a response to existing urban governance challenges in Sub- Saharan Africa.	2017-2020	This previous project is relevant, as it has been implemented in one of the cities also selected for the current proposal. This city is Choke in Mozambique. The current proposal will build on the data and results obtained by the CityRAp and DiMSUR to identify existing urban challenges in Choke. It will complement the existing projects by identifying adaptation measures that could be developed to solve these barriers as well as listing the financial mechanism that could fund these CCA initiatives.

Cities-IAP: Sustainable Cities Integrated Approach Pilot (IAP- PROGRAM)?,	ole d 1 Pilot	Geographic coverage/ Focus: Brazil, China, Cote d?Ivoire, India, Malaysia, Mexico, Paraguay, Peru, Senegal, South Africa, Vietnam Details: The goal is to promote sustainable urban development through better-integrated models of urban design, planning, and implementation. Designed to function as proof of concept, it is expected that this innovative pilot program will create a strong network of cities that will act as global ambassadors for urban sustainability planning, with tangible benefits at both the local and global levels.	2015	This initiative financed by the GEF is interesting as it took place in countries of different continents including Africa, Asia and America Latina and Caribbean, which is also the case of the current proposal. Also, this previous initiative worked in improved models for urban planning, design and implementation. These models will be analyzed while designing the tool 2 Identify and prioritize CCA actions and projects which will help the city avoid identified damages and increase climate resilience. The current proposal is complementary to this previous initiative as it focuses in designing tools to access climate finance to implement CCA measures or actions.
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Cities and Climate Change Initiative, Fiji	UN-Habitat	Geographic coverage/ Focus: Republic of Fiji Details: Lack of budget allocations for climate change adaptation and disaster risk management in municipalities of Fiji has been identified as an ongoing challenge. The programme assisted municipal councils with incorporating climate change adaptation strategies into their planning processes. Support was also provided at a community level, helping local communities design community level disaster management plans through identify climate change related vulnerabilities and key adaptive and mitigation measures which can be implemented.	2012	This previous project is relevant as it was developed at municipal level and aimed at assisting municipal councils in incorporating CCA strategies into their planning processes The current proposal will complement the previous project as it will create a toolkit that will support small and medium sized cities of LDCs and SIDS to access CCA climate finance.
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Joint programme on environmental mainstreaming and adaptation to climate change in Mozambique	UNIDO	Geographic coverage/ Focus: Chicualacuala District, Limpopo River Basin, Mozambique. Details: A new standard model of risk analysis (based on community mapping and GIS) was applied in Chicualacuala as a pilot district and replicated in more than 20 districts. Climate change was firmly established in the national agenda and mainstreamed in poverty reduction plans, disaster management and food security plans and strategies. The capacity of planners was strengthened to gather and analyze climate change data and implement plans that integrate		This previous project is relevant as it was developed in Mozambique, one of the selected countries, and aimed at mainstreaming CCA. The current proposal will benefit from the established institutional context.
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3) Pilot country and city preliminary analysis

**48** This section provides a baseline scenario in the three countries and cities, selected as pilots for this project and associated baseline projects and plans. All the 3 pilot cities are small and medium size cities from the LDC and SIDS:

- English Harbour Town in Antigua and Barbuda
- Savannakhet in Lao PDR
- Chokwe in Mozambique

Antigua and Barbuda Overview

**49** Antigua and Barbuda is a SIDS located in the Eastern Caribbean Sea. The two-island country has a population of 94,400 people residing on the island of Antigua and a population of 1,600 people residing on the island of Barbuda. About 30% of the population is considered to be urban and 22% to be below the age of 14 (CIA, 2020). Antigua and Barbuda has an annual GDP of 1.4 billion USD and tourism is the country's largest economic sector (nearly 70% of the GDP) largely dependent on coastal infrastructure and coastal resources.

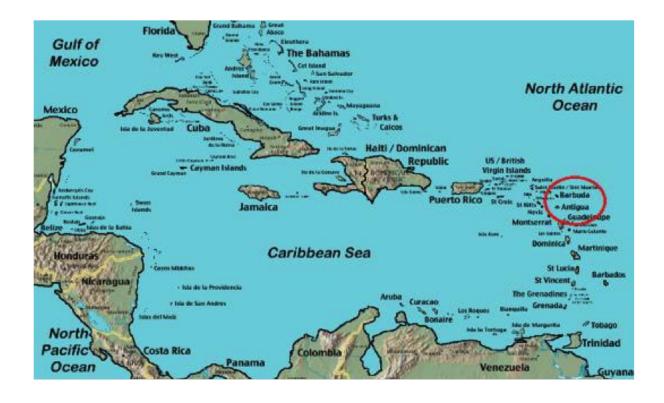


Figure 12: Geographical location of Antigua and Barbuda in the Caribbean Sea. Source: Adaptation Fund, 2017

National climate vulnerabilities and risks

**50** Impacts of climate change on Antigua and Barbuda include a sea level rise (SLR), coastal erosion, intense weather events such as hurricanes and droughts. The country experienced an extended drought from 2012 to 2015, the second extended drought in 15 years, which required emergency investments and a significant recovery cost.

51 The GCF project Resilience to Hurricanes in the Building Sector in Antigua and Barbuda identified the following future climate change trend likely to affect the country:

- An estimated 30 ? 50% less rainfall in 2090 compared to the late 20th century rainfall norms.
- Increased rainfall intensity leading to greater risks of flash floods and floods.
- Average ambient temperature increased by 3 to 5<sub>o</sub>C by the end of the 21<sub>st</sub> century.
- Increased sea surface temperatures.
- More intense hurricanes.

**52** The country?s tourism dependent economy is likely to get severely impacted by climate change. A GCF proposal estimated that 10% of major tourism related properties, 2% of road networks and 100% of seaports in Antigua and Barbuda are at risk from a 1-meter SLR. Together, SLR and coastal erosion could cost Antigua and Barbuda?s economy between 62% and 209% of GDP by 2080 for the mid-range SLR and the high SLR respectively. Furthermore, drought costs the country almost 6 MW in additional electricity generated for the provision of water through desalination (GCF, 2017).

**53** The country?s high vulnerability was evidenced in **September 2017, as hurricanes Irma and Maria hit the islands**. Hurricane Irma was the strongest Atlantic basin hurricane recorded in history. Barbuda was particularly hard hit, as the eye of the hurricane passed directly over the island. Nearly 90% of the built environment was damaged and the island was regarded as uninhabitable forcing the evacuation of the population to Antigua until recovery could be completed. Almost all the structures on Barbuda were destroyed and the vegetation stripped. As Climate models are predicting an increase in intensity and frequency of hurricanes in the Caribbean region, they pose a major threat to the population and to the economy.

54 Increasing temperatures and changing rainwater patters result in droughts and generate water shortages, thereby threatening the agriculture, natural water resources and health sectors (CARIBSAVE, 2015). In 2015, the country missed approximately a years? worth of rainfall, which resulted in a 32 month-long dry season (Adaptation Fund, 2017). The nation is strongly dependent on seawater desalination, which can account for 60% of national water supply, and up to 90% during the times of drought. To ensure water security, an uninterrupted and robust energy supply is critical to meet the daily water demand. Therefore, adaptation in the water sector is of national priority and an ongoing economic drain.

National climate change adaptation policies and regulations

**55 National Medium-Term Development Strategy (2016 ? 2020)** outlines the country's development strategy, highlighting the climate change adaptation and disaster risk management. The strategy calls for the government to prepare a national comprehensive disaster mitigation plan, review government coordination arrangements and practices, prepare a national climate change policy, prepare a disaster risk financing strategy, develop a crop and livestock insurance scheme to protect farmers and ranchers, and incorporate mainstream climate change considerations into all national policy, strengthen ecosystem conservation, raise awareness and educate people about climate change, and strengthen governmental capacity.

**56 National Adaptation Plan (NAP)** is in the process of development. The Readiness Proposal submitted to the GCF refers to a focus on enhancing the country?s adaptive capacity, strengthening resilience and reducing vulnerability to climate change. Technical studies will be conducted for 6 sectors to formulate priority actions for each of them and for NAP and develop climate sensitive regulations. The NAP will also aim to making financial flows consistent with the country?s pathway towards a climate resilient development (GCF, 2017).

57 National Action Plan Combatting Desertification, Land Degradation & Drought (2015-2020) tackles desertification and drought issues and identifies areas on which preventive and adaptive action is to be performed in priority. It also identifies gaps in human and technological resources to undertake this action.

**58** Intended Nationally Determined Contribution. (2015) ? INDC identifies the following sectorial priorities on adaptation and mitigation: (1) Urban development (2) Energy efficiency (3) Public health, food storage and emergency services (4) controlling carbon emissions (5) water resources (6) updating current policies and building codes.

**59** Third National Communication (2015) assessed climate change vulnerabilities of various sectors through both an analytical assessment and stakeholder consultations. Agriculture, health and water sectors were identified as the most vulnerable to both storms and droughts. The document also pointed at the need for large-scale capital investments into renewable energy projects.

60 Environmental Protection and Management Act (2019) lays down rules for a sustainable environmental protection and management of natural resources, control and mitigation of all forms of environmental degradation and maintenance of the quality of the environment. It allocates administrative responsibility and provides a framework financial mechanism to satisfy the requirements of the Act.

**61** Sustainable Island Resource Management Zoning Plan for Antigua and Barbuda (including Redonda) (SIRMZP, 2011) - The primary goal of the SIRMZP is to present a forward-looking strategic, national spatial development framework that addresses current development issues, and provides a platform for feasible private and public sector development initiatives over 20 years.

**62** National Poverty Reduction Strategy 2011 ? 2015 (NPRS): This strategy identifies social, macroeconomic and structural policies and programs to promote growth, reduce poverty and improve living conditions. It aims to reduce social vulnerabilities by increasing incomes and employment opportunities, increasing resilience of the most vulnerable, improving governance and public sector management as well as to build resilience through environmental sustainability.

### International climate change adaptation baseline projects

**63** The Reducing Risks to Human and Natural Assets Resulting from Climate Change: This USAID project assists Antigua & Barbuda in adapting to the impact of climate change through adaptation measures in the areas of coastal/marine zone management and freshwater resources management. These adaptation measures could be used as a starting point for activity 1.1.3.2.

64 An Integrated Approach to Physical Adaptation and Community Resilience in Antigua and Barbuda's Northwest McKinnon's Watershed: the project, funded by the Adaptation Fund, aims to help provide revolving loans for homes in McKinnon's watershed to meet new adaptation guidelines established in the building code and physical plan. The current proposal will analyze climate finance as well as innovative mechanisms to support the implementation of adaptation projects in the 3 selected cities. The results from this previous initiative could provide inputs to tool 4, unlocking climate finance.

**65** Integrated Physical Adaptation and Community Resilience through an Enhanced Direct Access Pilot in the Public, Private, and Civil Society Sectors of Three Eastern Caribbean Small Island Developing States: This GCF project seeks to improve resilience to climate change of privately owned physical assets of vulnerable populations through concessional micro financing. A private sector Revolving Fund loan programme for adaptation in buildings is currently being piloted in Antigua and Barbuda. The project also seeks to scale up the initiative using the GCF capacity assessment checklists covering fiduciary standards, environmental and social safeguards, and gender criteria. Once evaluated, the project will finance adaptation in buildings and manage reflows into the Revolving Fund, which are revolved and re-disbursed to beneficiaries. This initiative should be considered as one of the financing sources available in Antigua and Barbuda and could thus support the formulation of tool 4 in this country.

CCA finance in Antigua and Barbuda

66 Antigua and Barbuda receives funding from various multilateral and bilateral development institutions. The Adaptation Fund (AF), the European Union (ECHO ? European Commission's Humanitarian Aid and Civil Protection Department), GCF and GEF are among the most active multilateral institutions and AusAID, DFID and USAID among bilateral institutions. In addition, the Caribbean Catastrophe Risk Insurance Facility (CCRIF) and the Red Cross actively provide technical support. 67 The country has been very active in mobilizing CCA finance. To do so, it has put in place required institutional structures and laws to access these funds. Importantly, the Environmental Protection and Management Act (2015) legislated a **Sustainable Island Resource Financing Fund (SIRF)** as the national fund for climate change adaptation projects. The SIRF Fund is expected to become the primary channel to attract and manage domestic and international climate finance. Through the SIRF, the country is piloting a programme that will mobilize private sector finance and extend credit to high-risk and low-income households to strengthen the resilience of their homes. This intervention may be an important example of how to catalyze private sector funding in a SIDS constrained by the size of its domestic market. The country's **Department of Environment** leads this effort. Since 2016, it has secured two readiness grants from the Green Climate Fund (GCF) and may in the near future become the first National Entity in the region to secure GCF accreditation (The Commonwealth of Nations, 2018).

**68** The country?s CCA financial needs are however far from being fully covered. Both the country?s access to new DFI players and to innovative financial mechanisms could be explored. A number of barriers may need to be tackled to successfully enlarge the country?s CCA finance pool. For example, the country is yet to establish a national system to track the impact of climate finance flows. There is no central monitoring against indicators that measures their effectiveness (UNFCCC, 2020).

**69** Finally, Antigua and Barbuda?s high vulnerability to climate change and a tourism dependent economy are likely to negatively impact any sovereign or sub-sovereign credit rating, which restricts access to debt and other investments since the risk of default on debt servicing is high. As a first step to improve the matter, the financial sector needs to be better informed of the climate change risks in the country. Financial players could possibly apply their own climate change strategies and tools, such as negative or positive lists and climate scenario and stress testing, to identify less risky investments in the country (UNFCCC, 2020).

### Pilot city: English Harbour Town

**70** English Harbour Town is a small settlement on the South East coast of Antigua. It has a population of 759 (2001 census) people and possesses a natural deep-water harbor. Together with Falmouth, English Harbour serves as a special development settlement with a concentration of tourism, heritage, fishing, agricultural, residential, commercial, and recreational sectors. In particular, the tourism sector and yacht industry are strong economic drivers of the area.

71 The town is regarded as a top tourist destination. The Southeast of Antigua is however most vulnerable to drought and therefore water shortages. Furthermore, coastal flooding, water intrusion and sea-level rise are prominent concerns. Threats of hurricanes are similarly high. In 2010, the passage of Hurricane Earl caused tremendous damage to infrastructure and equipment of the local fisheries.

72 English Harbour Town is located within Nelson's Dockyard National Park and incorporates a World Heritage Site. Therefore, the land falls under the National Park Act and Regulations. The main objectives of the National Development Plan are to protect natural and historical features, create unique tourist destinations, secure economic development, and improve the quality of existing residential environments.

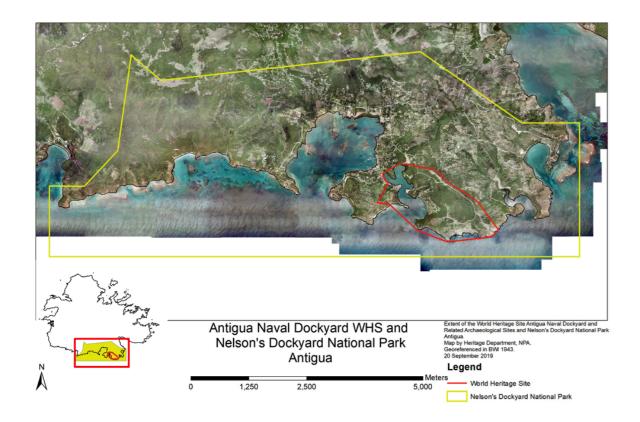


Figure 13: Location of Antigua Naval Dockyard WHS ad Nelson's Dockyard National Park, Antigua. Source: Nelsons Dockyard Park Development Plan

73 The following policies and regulations related to the park zone can be referred to:

- Nelsons Dockyard National Park, Park Development Plan, Volume 1 (1985)

- Nelsons Dockyard National Park, Park Development Plan, Volume 2 (1985)
- The National Parks Act, Laws of Antigua and Barbuda (1984)
- The National Parks (General) Regulations, 2014
- The National Parks (Trading) Regulations, 2014
- The National Parks (Amendment) Act, 2004

Lao PDR Overview

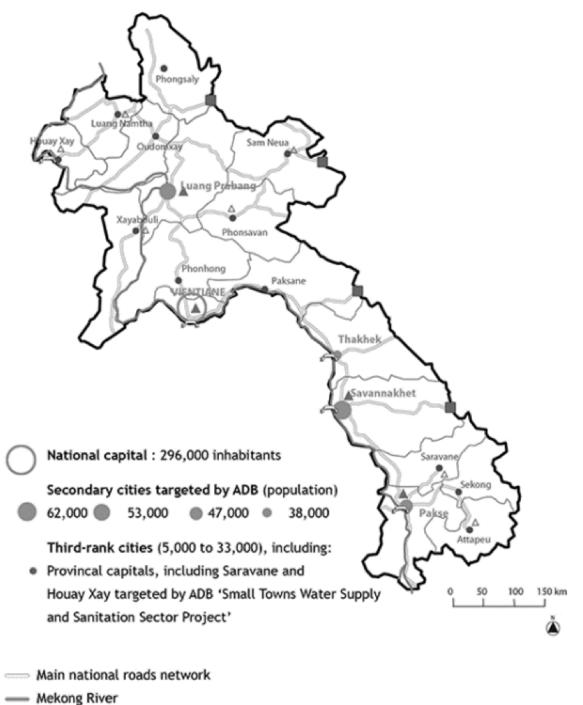
**74** Lao People?s Democratic Republic (Lao PDR) is a **small landlocked nation at the core of the Mekong region** sharing a border with Cambodia, China, Myanmar, Thailand and Vietnam. The total land area covers approximately 236,800 km2, comprising a wide range of ecosystems within varying levels of elevation. Due to the mountainous topography, only 6.2% of the total land area is classified as arable land (CFE-DM, 2017). The Western part or the country is located along the Mekong River, which is central to agricultural production considering the fertility of the river valleys.

75 Lao PDR is part of the LDC, but its economy is one of the fastest growing in Southeast Asia with a sustained average annual growth rate of 8% over the last decade. The growth of GDP is mainly supported by the expanding sector of electricity, as well as wholesale and retail trade sectors, among others. With a predominantly rural population, agriculture however remains the primary source of livelihoods (Government of Lao PDR, 2018). Through its sustained growth, Lao PDR aims to quit the LDC status by 2024, and it already satisfies most of the eligibility criteria to be removed from the list.

**76** Administratively, the country is divided into 3 tiers: the 16 provinces and the capital city of Vientiane are further divided into 142 districts, which comprise 11,390 villages. The 2015 census estimated the total population to 6.49 million people, 33% of whom reside in urban areas. The nation?s population is relatively young, with 32% of the population of 14 years or younger. Only 4 percent of the total population is 65 years old and above (CFE-DM, 2017).

77 The urban system is classified into **3 categories of cities**: the capital, regional urban centers and smaller cities, which may be small-sized provincial capitals or district capitals. Medium size cities are essentially located along the Mekong River, whereas small cities tend to be spread across the country. Therefore, medium size cities are located on the international border with Thailand (with the exception of Luang Prabang) and are thus border towns.

78 The core problems in urban areas are **inadequate infrastructure**, **inefficient land use and urban management**, **inadequate access to urban resources**. Growing urban areas provide ways for expanding economies, as well as providing access to the national and regional markets.



- 'Friendship bridges' with Thailand
- Mountain road passes to Viet Nam
- Domestic airport
- International airport

#### National climate vulnerabilities and risks

#### Existing climate vulnerabilities

**79** Lao PDR is exposed to high climate and disaster risks. Droughts, floods and storms are the most prevalent hazards, and are expected to become more severe with climate change. The dry season in Lao PDR is getting longer, droughts are becoming more frequent and prolonged, and the occurrence of unusual and intense flood events is increasing. According to the Global Climate Risk Index 2019, Lao PDR ranks the world?s 89th most vulnerable country to climate change sensitivity (UNDRR, 2019). It is based on 50 indicators assessing hazards, vulnerability and capacity.

**80** Three of the five costliest natural disasters have hit the country since 2009, including two floods in 2013. The 2015?16 El Ni?o, one of the strongest storms on record, impacted the country through lower yields, reduced hydropower production and infrastructure damages (GFDRR, 2019). The country report 2019 through a KOICA ESCAP Fellowship Program, the following table describes disaster trends and climate hazard in 2008-2016:

Disaster Types	Year	Provinces	People affected	Killed	Damaged Cost USD
Flood	2008	13	243,342	13	17,157,224
Typhoon Ketsana	2009	5	271,943	28	58,000,000
Ts Haima and Ts Nokten	2011	12	429,954	42	220,568,382
Flood	2013	12	353,966	25	280,375,000
Flood	2014	4	15,308	1	
Flood	2015	4	37,815	0	7,434,604
<u>Drought</u>	2016	1	NA	0	126200

Figure 15: Disaster Trends and Climate Hazard from 2008-2016, Lao PDR. Source: GFDRR, 2019

**81** In 2018, the country was affected by 2 consecutive disasters: The storm Son-Tinh, which breached Xe pien-Xe Nam Noy hydropower saddle dam causing flash flooding and storm Bebinca in August. Over 600,000 people in 90 districts were affected by these events, and the economic damages and losses reached USD 371.1 million. The dam breach in Attapeu province alone caused almost 10 % of the total economic impact (Government of Lao PDR, 2018).

**82** In October 2019, nearly 765,000 people were badly affected and 19 were killed by **Tropical Storm Podul** and **Tropical Depression Kajiki**. As many as 97 bridges, 747 schools, 43 health centers and hospitals, 462 road places, 275,114 livestock and poultry were affected by the related floods. Total damage was estimated to cost USD 164 million (OCHA, 2019). In October 2020, **tropical storm Saudel** traversed through the Philippines and the East Sea, which affected 163 villages in the three provinces, with an estimated 10,637 households (69,764 people) (OCHA, 2020).

**83** These events have significant impacts on the agricultural sector, a critical part of the economy, representing nearly ? of the GDP and 64% of the employment. (GFDRR, 2019) Over 75% of the population in Lao PDR is dependent on natural resources for their livelihood and is therefore vulnerable to the climatic changes.

**84** Floods and droughts historically have significantly impacted Lao PDR?s agriculture, forestry, water resources, health and economic growth. As such, these sectors have also been identified as priority areas for adaptation. Additional concerns are lack of capacity and knowledge with respect to climate modeling, lack of scientific data on climate effects and potential impacts, low levels of public awareness and weak institutional setup that acts as a barrier to adaptation. **Financial and institutional capacity constraints** are highlighted as major barriers to climate change action.

Future climate risks

85 The estimated projection for temperature rise is of 1 to 2 ? degrees, and precipitation is likely to increase by 10 to 30% by 2050. Annual rainfall has been estimated to increase by 7% in the region, and the frequency and intensity of weather extremes are projected to grow as well. (Government of Lao PDR, 2018). While Lao PDR has an abundance of water resources, there is an increasing demand for water supply. There are already parts of the country (particularly in the Southern plains) where surface water cannot meet the needs for irrigation, and any discontinuities in the natural hydrological cycle are likely to pose severe threats to communities and the agriculture industry as a result of climate change in the future (UNDRR, 2019).

**86** Another major challenge amplifying climate related risks is an encroachment and degradation pressure on forests and natural resources. Expanding agricultural frontiers, illegal hunting, illegal logging, over harvesting, over allocations of hydropower and mining projects, and mono crop plantations such as rubber and eucalyptus trees are also the driving factors of climate change effects.

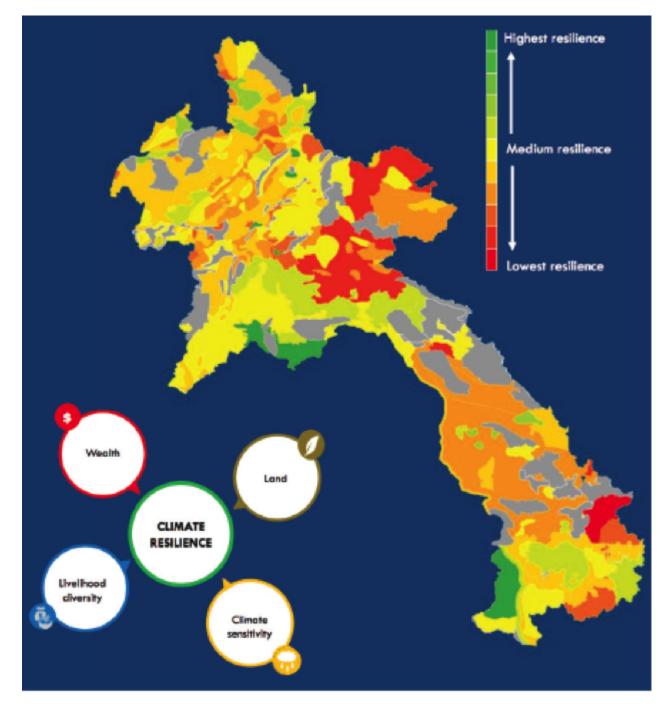
# Climate risks and cities

87 An assessment of UNDRR concluded that the Southern and Northeastern parts of the country are assumed to be the most vulnerable to climate change related disasters (UNDRR, 2019). Most cities in Lao PDR are located in river flood plains and are prone to extreme weather events. They are therefore highly exposed to risks of human losses, infrastructural damages and spread of diseases such as malaria, dengue and water borne diseases, due to floodwater accumulation.

**88** According to a report by MoNRE and the UN World Food Programme (UN-WFP), the areas along the Mekong River, and specially Khammuane and Savannakhet, are highly prone to floods and storms, especially the low-lying Mekong River basin. Droughts, on the other hand, occur

predominantly in Northern and Eastern parts (MoNRE and UN-WFP, 2016). Some of the most flood-generated damages are infrastructure damages to buildings and roads, affected water and electricity infrastructure, affected shops and businesses. Women and children living in informal settlements are identified to be particularly vulnerable to climate related disasters.

**89** A CTCN assessment of 6 cities - Luang Prabang, Kaysone Phomvihane, Paksan, Pakse, Thakek and Vientiane, demonstrated that water-borne diseases such as dengue were wide spreading across all the cities. While falling of electricity polls, damages to roads and houses were identified as the most common, the largest share of damages was concentrated in the cities of Paksan and Vientiane. The World Bank, on the other hand, estimated that flood related damages in Muang Xay could reach 11 million USD if no flood risk management is undertaken (World Bank, 2017).



# Figure 16: Resilience levels in Lao PDR. Source: UNDRR, 2019

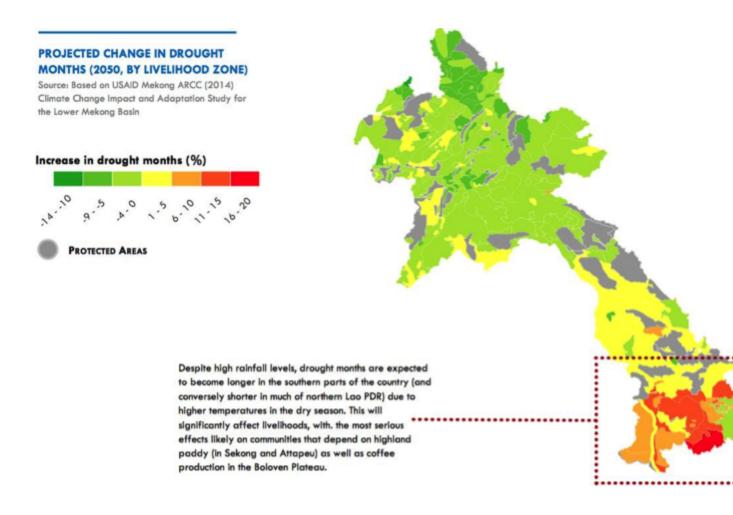


Figure 17: Vulnerability to drought in Lao PDR. Source: Laos Maps, 2020

### National climate change adaptation action

#### National strategies and programs

**90** To tackle the emerging threats of climate change, the government has incorporated disaster and climate risk management into policies, institutions and national development plans to enhance resilience of various sectors, including in agriculture and environment, housing and transport (GFDRR, 2019), and has strived to mainstream elements of disaster risk reduction and climate change adaptation activities across national development activities.

**91** With support from GFDRR, the government integrated climate risks and measures into its main planning documents, including a scaled-up focus on disaster risk management (DRM) in the **Eighth National Socio-Economic Development Plan (2016?20)**. Key sectorial policies and strategies in agriculture, environment, housing and transport have integrated climate and disaster risk considerations. (GFDRR, 2019)

**92** National Adaptation Program of Action (NAPA) (2009) presents a comprehensive overview of existing environmental, economic and social conditions, current and predicted climate change impacts, as well as the overall framework for the NAPA process. The report includes the identification of immediate and urgent needs for climate change adaptation and the barriers preventing implementation. The barriers identified include limited coordination and cooperation among sectors, weak institutional structure, low levels of public awareness on climate change matters, and limited budget available to implement the priority adaptation activities.

**93** The National Strategy on Climate Change (NSCC) (2010) outlines the country?s key climate change adaptation and mitigation strategies. NAPA is the central component of the NSCC. The goal of the NSCC was to ensure that climate change was streamlined into Lao?s 7th National Socio-Economic Development Plan (2011-2015). This strategy was developed by the MONRE in collaboration with relevant ministries and endorsed by the Prime Minister?s Office in 2010. The strategy?s overall objective is to leverage the country?s sustainable development and implement commitments to the UNFCCC while promoting sustainable economic development, reducing poverty and enhancing the quality of the country?s natural environment and livelihoods. The strategy also identifies specific adaptation and mitigation measures in 7 key sectors, namely (1) agriculture and food security; (2) forestry and land use change; (3) water resources; (4) energy and transport; (5) industry; (6) urban development; and (7) public health.

**94** Climate Change Action Plan of Lao PDR for 2013-2020 developed climate change action plans for the period 2013?2020 to define mitigation and adaptation actions in the sectors of agriculture, forestry and land-use change, water resources, energy, transportation, industry and public health.

**95** The Third National Communication on Climate Change is expected to be completed by 2019. The Initial National Communication (INC) was completed in 2000 and the Second National Communication in 2013.

**96 8th National Socio-Economic Development Plan (NSEDP)** (2010-2025) aims to a sustainable economic development preserving natural resources and protecting the environment. Climate change priorities of the NSEDP include enhancing the ability to adapt and prepare for climate change by integrating climate change risk mitigation into sectorial strategic and operational plans. The NSEDP also **stresses the importance of urban planning**, town development, and urban management to improve the economic role of small towns.

97 The Initial Concept of the 9th NSEDP (2021-2025) has also been prepared and is under review.

**98** The NAPA, NSCC and current development plans have greatly strengthened the policy framework for climate change in Lao PDR and built climate awareness amongst the senior officials of the government. Despite this progress, a weak institutional setup is still a significant barrier to CCA. Particularly, a lack of coordination between the UNFCCC National Focal Point, the Water Resource and Environment Administration and other Ministries limits integration of climate change adaptation policies into sectorial strategies. Lao PDR Country Strategic Plan (2017-2021) includes building resilience of urban populations with ecosystem-based solutions.

International climate change adaptation baseline projects

**99 Building Resilience of Urban Populations with Ecosystem based Solutions in Lao PDR** ? This US\$ 11.5 million project of which US\$ 10 million requested from GCF, aims to improve urban flood management by mainstreaming integrated flood management strategies in the planning framework. The project applies an ecosystem-based adaptation (EBA) and an integrated planning approach. Its activities include technical and institutional capacity building to plan, design, implement and maintain integrated urban EBA interventions. This project is highly relevant to the current proposal as it take place in Lao PDR, has been implemented recently and aims at building resilience of urban population with adaptation measures. Thus, this project could help identifying concrete adaptation measures that have been initiated, implemented or planned and provide inputs to activity 1.13.2, Implementing Tool 1 of the toolkit.

**100 Building Climate and Disaster Resilience Capacities of Vulnerable Small Towns in Lao PDR ?** This USD 5.5 million project funded by the Adaptation Fund aims to improve resilience in small towns along the east-west economic corridor of Savannakhet province, in the central region. Launched in June 2020, it targets local, regional and national governments. It aims to lead to the development of two town level master plans integrating climate change adaptation into socially inclusive infrastructure and benefit 57,000 people. The approach consists in forming an action plan based on a rapid vulnerability assessment plan, to support multi-stakeholder inputs and to include capacity building for local authorities. The project is implemented by UN-Habitat, the Ministry of Public Works and Transport and the Ministry of Natural Resources and Environment along with their respective departments in Savannakhet, and provincial authorities [UN Habitat, 2020]. This project is also relevant because it is developed in the selected city of Savannakhet and by UN Habitat, which is an executing agency for the current proposal. It is a recent project, implemented at small town levels to build climate and disaster resilience with the objective to develop master plans integrating CCA. Thus, this project could support the development of outcome 1.1 of the following proposal. **101** Ecosystem and Urban Adaptation in Lao PDR, 2016 ? ??The project was executed under MoNRE between 2016 and 2020. It aimed to invest in restoration and management of ecosystems surrounding urban areas and promote ecosystem-based adaptation as an inclusive and costeffective adaptation strategy. It also included investing into city level planning, building codes and green infrastructure. This project is relevant to the current proposal as it provides cost-effective adaptation and city level planning insights in Lao PDR.

**102 Cities and Climate Change Initiative (CCCI)** - The UN?Habitat Asia?Pacific Strategy 2011?2015 identified 3 key objectives for the CCCI program: build the capacities of at least 50 cities in at least 15 countries in preparing and implementing comprehensive climate change strategies and action plans; integrate good climate responsive urban development practices into national policies, strategies and legislative reforms; establish the CCCI Regional Partner?s Advocacy knowledge management, capacity building and networking platform. In Lao PDR, the city of Pakse, located at the confluence of the Mekong and the Xe Don rivers in Southern Lao PDR, is the pilot city of the project (UN HABITAT, 2014). This project should be analyzed for its objective to disseminate and build the capacities of cities in cities of Asia Pacific. The current proposal also aims at disseminated knowledge in all 3 regions, and this project could provide relevant lessons learned and best practices to be replicated for activities 1.1.4 and 3.1.3.

# CCA finance in Lao PDR

103 Donor and NGO support In Lao PDR is an essential source of both CCA finance and CCA technical expertise. The GCF and the GEF have granted a number of projects to the country. UNDP is the implementing agency for most of them. Support to mainstreaming CCA into national institutional and policy work has been actively provided to the country. Other multilateral funds and agencies include the Adaptation fund (UN-Habitat ? implementing agency), the ADB, GFDRR, LDCF, UNICEF, UN OCHA, WFP, World Bank and bilateral agencies include AusAID, Australian Department of Foreign Affairs and Trade (DFAT), Danish International Development Agency (DANIDA), Disaster Preparedness European Community Humanitarian Office (DIPECHO) and bilateral partnerships with neighboring countries especially with Thailand and Vietnam on trans-boundary risk management, emergency response and weather forecast.

### \_Pilot city: Savannakhet (Kaysone Phomvihane)

### City Overview

104 The town of Savannakhet, officially known as Kaysone Phomvihane (previously also known as Khanthabouli) is located in the Western region of the Savannakhet province along the Mekong River, which marks a natural border with Thailand. Kaysone Phomvihane city hosts a population of 131,749 inhabitants (2019). The town was developed as the administrative and commercial center of Southern Laos during the French colonial period. Its strategic location along the East West Economic Corridor (EWEC), as an inter-corridor link and a border town, makes its population as well as economic and commercial activities to grow (ADB, 2012).

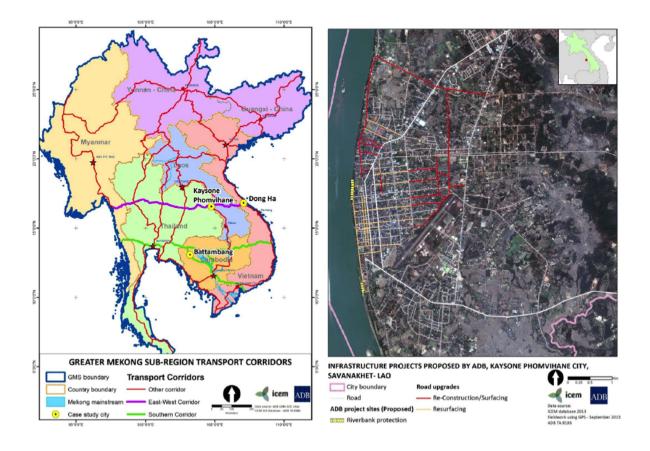


Figure 18: Location and map of Kaysone Phomvihane. Source: ADB

### City climate vulnerabilities and risks

Kaysone Phomvihane is located in an area of higher elevation and its exposure to climate-105 related hazards is less severe than in some other districts in Savannakhet. However, climate change effects are noticeable in the city with the annual average temperature increased by 1.4?C in the last 30 years, resulting in record temperatures peaks at 42?C (Adaptation Fund, 2018). The town?s location on the banks of the Mekong River makes it vulnerable to flooding during intense rainfalls (ICEM, 2015). This is worsened by tropical storms that heavily inundate the territory. In addition, the city center ? where major residential houses and commercial establishments are located ? is relatively flat and the capacity of the drainage system in the town is limited. The design and maintenance of this system fails to support instantaneous runoff of heavy tropical rains. Land cover change in favor of built-up areas, hard paving, infrastructure and buildings that encroach on natural drainage lines further exacerbate flooding. Wetlands, natural streams and green ecosystems play a vital role in reducing floods in cities. For example, intact natural vegetation reduces the velocity of flash floods, protects riverbanks from erosion and reduces sedimentation. However, these ecosystems are frequently lost to abrupt urban development, thereby increasing the flood risk. Flooding, in turn, severely disrupts economic and social activities (Adaptation Fund, 2018).

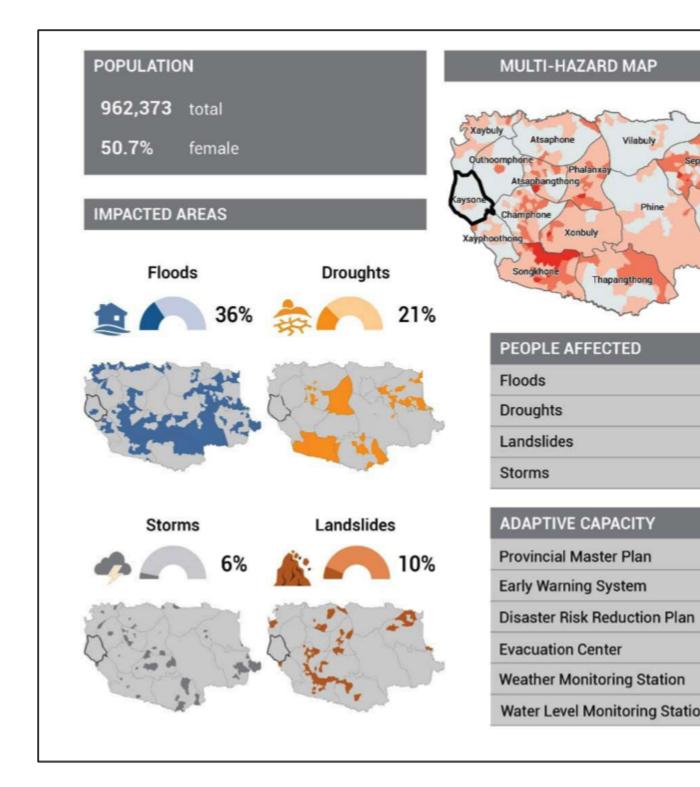


Figure 19: Results of a national vulnerability assessment in Savannakhet province. Source: UN Habitat

**106** Due to rural-urban migration, the growth rates of these cities are higher than the national average, including Savannakhet town receives an important number of rural-to-urban migrants, which puts pressure on the existing infrastructure while institutional capacity to cope and adapt needs further improvement. As a result, the city develops in a semi-planned manner and does not

get to adequately integrate climate resilience into this development (GCF, 2019). With flooded areas projected to extent by 2050, the city highly requires timely CCA action.

**107** The Climate Disclosure Project requests cities to provide updated information on their climate vulnerabilities and activities undertaken to address them by filling in CDP Cities Questionnaires. The latter are a valuable source of information since filled directly by municipal governments. In 2019, over 800 cities responded to the CDP?s Cities Questionnaire, including Kaysone Phomvihane city. Selected responses from the city were particularly helpful in understanding the city?s own perspective on challenges it considers as priority challenges.

**108** Those the city quoted were:

**109** Heavy rainfalls and rainstorms during the monsoon season significantly impact the city. In particular, the city expressed a health vulnerability concern: vector borne diseases such as malaria, dengue, Lyme disease, tick borne encephalitis, water borne diseases tend to proliferate during this time of the year. This often leads to a disruption of health services provision. Water provision, sanitation and wastewater services get heavily affected too. Women and children are particularly vulnerable to health and other climate related events.

**110** The city lacks robust climate informed surveillance, preparedness early warning systems and response.

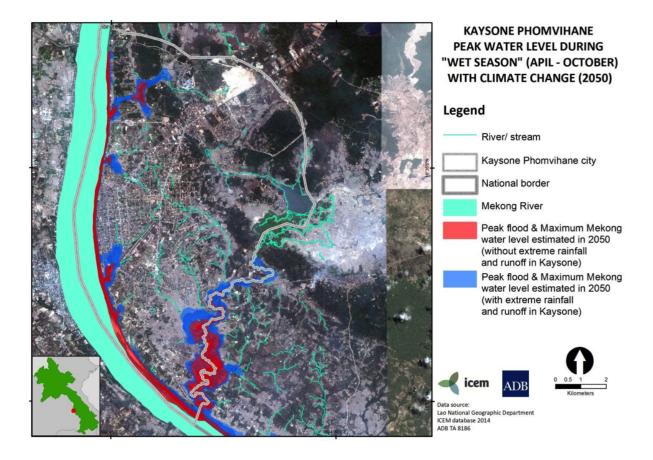


Figure 20: Kaysone Phomvihane town - projected flooded areas extension due to climate change by 2050. Source: ADB

City climate change adaptation action

**111** City climate vulnerability assessment and identification of ecosystem-based adaptation interventions ? Lao PDR - Kaysone Phomvihane (Savannakhet was one of the 6 selected cities for the project). The aim of the project was to utilize green infrastructure elements as tools to create climate resilience in urban and peri urban areas, especially to cope with the impacts of floods (CTCN, 2017).

**112** The **Kaysone Phomvihane Master Plan** is being updated to include climate change considerations.

**113** Building resilience of urban populations with ecosystem-based solutions in Lao PDR (2019) - Savannakhet was one of the 4 cities selected by the Project Steering Committee (cochaired by MoNRE and UNEP). It aims to shift the paradigm of urban flood management in Laos from a structural solutions approach towards an integrated non-structural and structural solutions approach that enhances climate resilience.

### CCA finance in Savannakhet

**114** Cities? accessibility to DFI CCA finance in Lao PDR is relatively favorable. The Mekong river areas are highly vulnerable to climate change and many country?s cities are located in these areas. Most CCA finance schemes in Lao PDR hence target them. According to the CDP Questionnaire 2020, various multilateral agencies are present in the city such as the ADB, GEF, Nordic Development fund or UNDP.

**115** At the same time, the city of Savannakhet faces a number of barriers preventing it from accessing CCA finance. In particular, the city is yet to mainstream climate change adaptation into its Master Plan; it lacks a local level institution in charge of climate adaptation mainstreaming and actions, and its officials have benefitted from little climate adaptation and finance related capacity building.

**116** In the CDP Questionnaire 2020, the city indicated that insufficient infrastructural capacity is a major challenge. The existing infrastructure was put in place long ago, which means it is aged and does not include climate resilience provisions. On the other hand, the city highlighted that it has a good political and administrative stability, which is an asset to effectively mainstream climate change into its socio-economic development.

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### Mozambique

### Overview

**117** Geographically, the Republic of Mozambique is located on the Eastern coast of Southern Africa. It has a tropical to sub-tropical climate moderated by the influence of mountainous topography in the Northwest of the country. Owning 2,770 km of the coastline, Mozambique is the third longest country on the African continent. The coastline is home to 60 % of the population and hosts vital natural ecosystems, such as mangroves, reefs, bays and dunes. The population of Mozambique is 30.7 million (The World Bank, 2019). Nearly 33% of the population lives in urban areas. The population distribution is irregular across the country with the Northwest and Southwest areas being the least populated and mostly concentrated in 3 areas:

- Along the Southern coast between Maputo and Inhambane;
- In the central area between Beira and Chimoio along the Zambezi river; and
- In and around the Northern cities of Nampula, Cidade de Nacala, and Pemba.

**118** Mozambique is one of world?s 10 poorest countries, listed as an LDC by the UN with a lower middle-income poverty rate of 82%. Agriculture, forestry and fishing represent nearly ? of the GDP, followed by ? of industry and nearly 50% of services. In 2019, 71% of the country?s total workforce was employed in the agricultural sector. While the economy registered its first contraction in 2020 in nearly three decades, growth is expected to rebound over the medium-term, reaching about 4% by 2022 (World Bank, 2021).

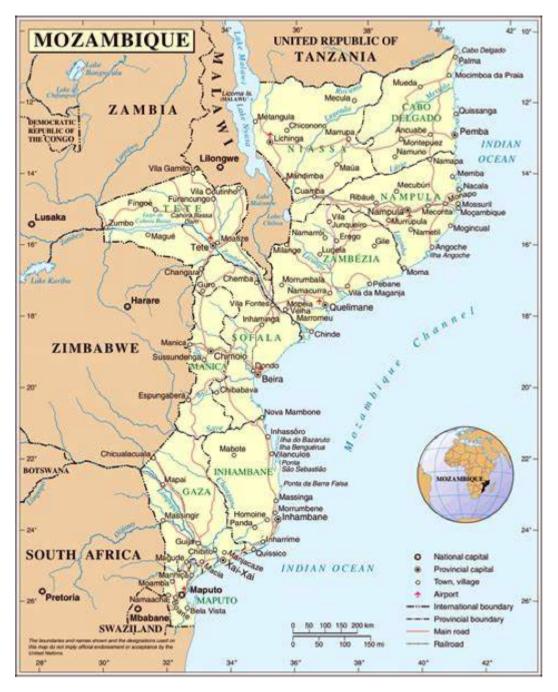


Figure 21: Location Map of Mozambique. Source: Nations online project

### National climate vulnerabilities and risks

# Existing climate vulnerabilities

**119 Mozambique is highly vulnerable to climate-induced disasters. Floods, tropical cyclones and droughts occur frequently.** In 2016, the worst drought in 35 years associated with El Ni?o?Southern Oscillation caused severe crop failure and livestock deaths. On an average, Mozambique is hit by one tropical storm or cyclone and by 3 or 4 tropical disturbances a year. The tropical cyclone Dineo, which hit Mozambique in February 2017, affected approximately 550,000 people and fully destroyed over 33,000 homes. In 2019, two major cyclones hit the country: cyclone Idai killed over 600 people and left an estimated 1.85 million people in vulnerable conditions. Cyclone Kenneth was the strongest tropical cyclone ever to hit the African continent and left approximately 374,000 people homeless. Together, the two cyclones caused an estimated USD 3 billion in damage (GEF, UNEP, UNDP, 2020). Finally, the tropical cyclone Eloise hit the country in January 2021 and affected an estimated number of 250,000 people.

**120** Overflowing of the 9 country?s major river systems during the rainy season causes regular floods with major floods occurring every 2 to 3 years. In terms of vulnerability, according to the Index for Risk Management (INFORM) for 2018, out of 191 countries, Mozambique ranks as the 10th world?s country most vulnerable to disaster risk.

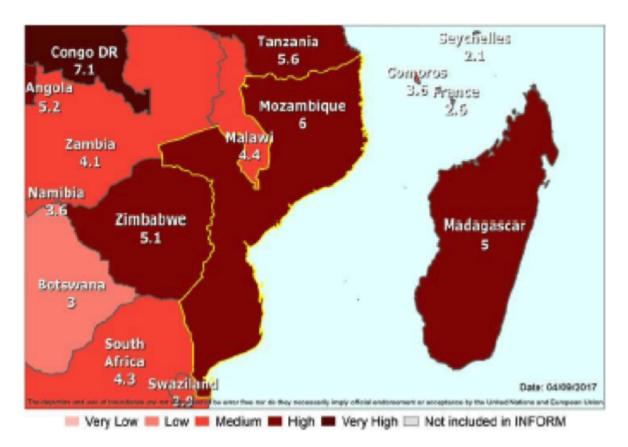


Figure 22: Occurrence of disasters and affected people in Mozambique (1956-2016). Source: World Bank with data from EM-DAT

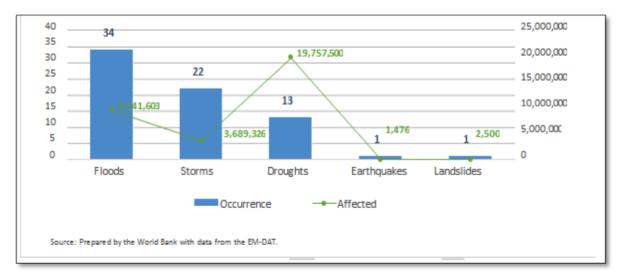


Figure 23: Vulnerability map of Mozambique according to INFORM 2018 risk index. Source: The World Ban

# Future climate risks

**121** The mean annual temperature is projected to increase by 1.0 to 2.8?C by the 2060s, and 1.4 to 4.6?C by the 2090s compared to mean temperature observed over 1970-1990. Climate projections indicate that ?hot? days will occur on 17?35% of days by the 2060s, and 20?53% of days by the 2090s. The number of heavy rainfall events is projected to increase by 2060, particularly during the dry season. Sea level rise in the region is expected to range from 0.18-0.59m by the 2090s; however, it is also projected that sea levels may increase beyond this range. With a 2,740km coastline, and more than 60% of its population living in low-lying areas, the country is likely to become more vulnerable than today unless robust CCA action is timely undertaken.

**122** In the worst case, the total annual damage costs are estimated to reach USD 103 million per year in the 2040s, with the forced migration being a large contributor to that cost. Climate change may cause the GDP to fall between 4 and 14%, with significant declines in national welfare by 2050. In the worst-case scenario, climate change costs could reach USD7.6 billion dollars if no adaptation measures are implemented (Irish Aid, 2018)

Climate risk in cities of Mozambique and CCA finance in Mozambique

**123** Little information on climate vulnerabilities in cities of Mozambique is publicly available in English. The section below was developed based on information provided by UN Habitat through a country questionnaire.

**124** Mozambican large cities face considerable climate threats, including rising sea levels, storms, heat waves and landslides. Major municipalities of Mozambique such as Beira, Maputo Nampula, and Quelimane are located in coastal areas, thus particularly exposed to floods and cyclones. Informal settlements and poor citizens are at most risk in these cities. Mainstreaming climate adaptation into urban spatial and development plans is a major challenge due to an insufficient availability of resources and of technical capacities to implement climate adaptation measures included into national strategies and policies.

**125** Addressing Mozambican cities? climate vulnerabilities requires high capital costs. UN Habitat recommends that city-specific mitigation and adaptation funds are created and FDI along with the national government elaborate ways of directly working with cities and allow city-designated authorities to endorse funding applications directly.

**126** In terms of access to CCA finance, the country received funds from DFI such as the Adaptation Fund of the GEF. Cities face difficulties in accessing financing windows without assistance by development partners. Technical capacity is one of the biggest challenges. Most funding targets bigger cities. Small and medium size cities are hardly supported by the FDI in Mozambique.

**127** In order to improve their access, UN Habitat identified the following action points: build institutional capacity; raise and collect own-source revenues; introduce new mechanisms including tax and investment incentives to allow cities to capture and use increasing land values, establish national green funds targeting cities, increase municipal borrowing limits, and provide technical assistance.

### National climate change adaptation action

**128** Aware of its high climate vulnerability, the country set up a number of national strategies, plans and took a number of international commitments to tackle this risk:

**129** The **National Climate Change Adaptation and Mitigation Strategy for 2013?2025**: Formulated in 2012, it aims to reduce vulnerability to climate change and improve the living conditions of the Mozambican people. It proposes climate change adaptation and disaster risk reduction measures and targets low carbon development. The strategy promotes creation of local adaptation plans, climate sensitive land-use planning, raising public awareness, establishing a climate change knowledge center and developing climate change indicators for a monitoring and evaluation framework (UNDP, 2017). Local Adaptation Plans are to be done at a district level, which puts local communities at the heart of adaptation planning.

130 The Government Five Year Plan (PQG 2029-2024) is the core national planning instrument to which national development strategies are aligned. It is important to highlight that neither this document nor the National Climate Change Strategy include CCA targets at the city level.

**131** National Disaster Risk Reduction Master Plan 2017-2030 (Plano Director para a Redu??o do Risco de Desastres 2017-2030 - PDRRD) is the overarching programmatic framework for disaster risk management (DRM) in Mozambique. Adopted in October 2017, it aims to reduce disaster risk as well as associated losses of human lives, impacts on livelihoods and critical infrastructure, to avoid the emergence of new disaster risks by increasing the resilience of people and infrastructure to climate and other natural and man-made hazards It also recognizes the need to mainstream disaster and climate resilience into public investments, territorial planning and public financial management while building capacity at all levels (The World Bank, 2019).

**132** The Intended Nationally Determined Contribution (2015) aligns with the National Climate Change Adaptation and Mitigation Strategy (NCCAMS). INDC aims to reduce climate change vulnerability and covers both adaptation and mitigation projects with a focus on 8 strategic areas: reducing climate risk, water resources, agriculture, fisheries and food security and nutrition, social protection, health, biodiversity, forests and infrastructure. It is divided into 2 terms: a medium term (2020 to 2025) to implement the goals at the regional level and a long term (2026 to 2030) to implement them at the national level.

**133** The First National Communication to the UNFCCC (2006) provides a vulnerability and adaptation potential assessment and identifies potential adaptation projects.

**134** Climate Change and Gender Action Plan (CCGAP): adopted in 2010, it underwent Phase 1 from 2010 to 2013 and entered Phase 2 in 2014. The plan aims to improve women?s and poor communities? participation in climate change adaptation and mitigation interventions, as well as foster their engagement into environmental management. The Ministry for Coordination of

Environmental Affairs (MICOA) selected 6 priority sectors to be part of the CCGAP: water, agriculture, health, climate mitigation (including energy and forests,) disaster risk reduction (DRR), coasts and fisheries. The main objectives of the plan were listed as follows:

**135** National Adaptation Program of Action (NAPA) (2007): High priority activities for adaptation identified in the NAPA include: early warning systems, strengthening capacity in the agricultural sector to adapt to climate change, reduce climate change impacts in the coastal zones, management of water resources, strengthen agricultural producers? capacity to cope with climate change (Irish Aid, 2018).

136 Among barriers to successful CCA implementation in the country, the following ones were identified: insufficient coordination and governance mechanisms leading to insufficient policy coherence at national, provincial, and district levels; lack of technical capacity to mainstream climate change at national, provincial, and district planning and budgeting systems; lack of reliable climate change and gender-sensitive data and information, lack of cross-sectorial cooperation (GEF, UNEP, UNDP, 2020). Mozambique Sectorial Programmes align with the vulnerable sectors identified in the NAP.

**137** The above efforts are commendable; however, they do not contain specific provisions to help cities adapt to climate change, which is a major barrier when it comes to mainstreaming the national climate action into the municipal level.

**138** The following projects are particularly relevant to the activities planned under the present project:

139 Building Urban Climate Resilience in Southeastern Africa (2017-2020): This is a 4-year grant project of USD 13,997,423 funded by the Adaptation Fund and implemented by UN-Habitat. Country and city level working groups were formed to facilitate the planning and implementation process of priority sub-projects in 4 countries (Madagascar, Malawi, Mozambique and Union of Comoros) including Mozambique. The project aims to develop capacities to adapt to the adverse effects of climate change in vulnerable cities of the participating countries. Chokwe is the first pilot city to implement the CityRAP Tool, designed by UN-Habitat in partnership with DiMSUR to help smaller countries understand risks and plan practical actions to progressively build urban resilience, between August and September 2015. It concentrated its activities in four neighborhoods, which are considered to be the most exposed to natural hazards and where the poorest and the most vulnerable are living. This initiative is relevant to the current proposal as it was developed in one of the selected city of this proposal, Chokwe in Mozambique and deals with the implementation of a tool developed by UN Habitat to support the planning and implementation of CCA measures. The current proposal will analyze the tool CityRAP developed by UN Habitat (an executing agency for this proposal) and refer to the actions implemented while developing the tool 2, identify and prioritize CCA actions and projects which will help the city avoid identified damages and increase climate resilience.

**140 Building Resilience in the coastal Zone through Ecosystem-based Approaches to Adaptation, 2014:** The project is co-funded by the European Development Fund (EDF), Europe Aid, UN Habitat and UNEP with a total amount of USD 24,903,784. The project seeks to increase climate resilience of vulnerable communities in the larger Maputo area that depends on ecosystem services provided by mangrove and riparian ecosystems. Maputo is based in Mozambique, one the selected city for the implementation of this proposal. Also, this initiative is partly financed by UNEP and UN Habitat, both executing agency of this proposal. Finally, this previous initiative was project seeking to increase climate resilience of vulnerable communities. Thus, the inputs of this project will be used to design the tool 2, identify and prioritize CCA actions and projects, which will help the city avoid identified damages and increase climate resilience. **141** Scaling up local adaptation and climate-risk informed planning for resilient livelihoods, Mozambique (2019): The project aims to strengthen the capacity of rural agro-pastoral communities and sub-national governments to plan for and adapt to climate change. This project is of interest because it took place at community level in Mozambique to scale up local adaptation and climate risk planning. Thus, it could provide relevant information for the design of Tool 1, 2 and 3.

**142** Adaptation in the Coastal Zones of Mozambique (2011): The goal of the project is to support Mozambique to increase resilience to climate change through both immediate and long-term adaptation measures in development policies, plans, programmes, projects and actions. This project is relevant as Chokwe, the selected city is a coastal zone city in Mozambique. Thus, the inputs could be used for the design of Tool 2.

**Sustainable financing of the Protected Area System in Mozambique (2009):** This proposal includes both coastal/marine and terrestrial ecosystems and aims to strengthen the financial sustainability and overall effectiveness of Mozambique?s PA system. It will do so through three components: Components 1 and 2 address the cost-side of the PA financing equation, while component 3 addresses the revenue-side. This previous initiative deals with financing mechanisms used to protect coastal a marine ecosystem in Mozambique. Thus, it could be used for the design of Tool 4, Unlock access to CCA finance.

Pilot city: Chokwe

**143** The municipality of Chokwe is the capital of the Chokwe district located in Southern region of the Gaza Province. It has an area of 28 km?, and a population of 55,256 people as of 2016. (DiMSUR, 2021) The city of Chokwe is rapidly growing and is regarded as the economic capital of the Gaza province, due its large agricultural produce. Other economic activities in the city include cattle, clothing and commerce. Most of the city?s economy is informal and economic diversification is low. Approximately 60% of the population lives below the poverty line and has a life expectancy of as low as 44 years (Adaptation Fund, 2019).

**144** As with most Mozambican urban centers, the development of Chokwe was unplanned. As a result, densely populated unplanned settlements and housing units with almost no access to basic services are common in the city.

Geographical location and vulnerability to climatic hazards

145 Chokwe is located at 230 km distance from capital city Maputo. Chokwe city is considered the economic core of Gaza Province due to its high agricultural potential and fertile lands. However, this potential is constantly threatened by natural and climate change hazards. As this city is located at the watershed of Limpopo River, it makes the city prone to frequent floods and cyclones. Moreover, Chokwe also suffers the effects of drought in some periods. Chokwe vulnerability to hazards is also affected by the effects of climate change, causing temperature rise, unpredictability of dry and rain seasons, and sea level rise (DiMSUR, 2021).



Figure 25: Location of Chokwe city. Source: Nations online project

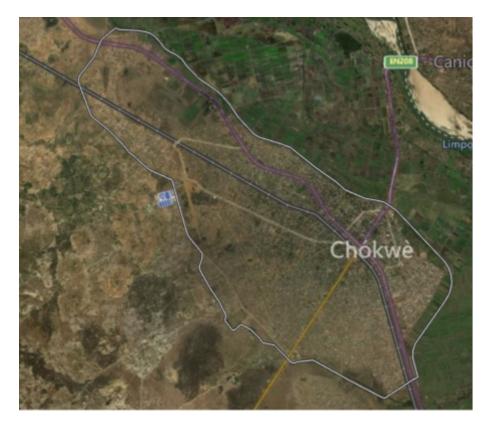


Figure 26: Chokwe city boundary. Source: Google Maps

### City climate vulnerabilities and risks

**146 Commonly affected by floods, droughts and cyclones**, the Limpopo area is considered one of the most exposed to natural risks in the country. **Floods in particular are a serious threat**, due to the district being downstream of the Limpopo River and having a low-lying flat terrain (Silva et al, 2010). The frequency and the intensity of floods vary, with the last devastating floods in 2000 and 2013 affecting the entire population. Key urban issues include (Adaptation Fund, 2019):

147 A non-functioning drainage system: A working storm-water drainage system is mainly important for areas such as Chokwe having a flat terrain. The city has a flat terrain, and the current drainage system is not coping with the increased water levels during heavy rainfalls. In addition, an inefficient maintenance of the drains leads to blockages, which significantly affects marginalized and vulnerable groups. It can take weeks for the floodwater to recede stopping most daily activities.

**148** Inefficient solid waste management: waste tends to accumulate at unplanned sites. This affects the drainage sites.

**149** Inefficient early warning systems: only 0.8% of the population have access to a telephone landline, 0.6% use computers and 18% of the people own a television. The main source of communication in the area is the radio, which is used by 47% of the household. Due to this lack of communication facilities, the warning system is highly inefficient. In addition, lack of evacuation centers restricts response during emergency times.

**150** The city conducted a climate vulnerability assessment in 2019. The city mapped risks in vulnerable areas and reinforced drainage system and dikes. Other flood preventing measures

included establishing new drainage ditches, improving and regulating informal settlements, and build elevated buildings, which are resilient to floods.

#### **City?s climate change adaptation action**

**151** The Department of Urbanization and Infrastructures and, under it, the Service of Urbanization and Infrastructures, manages climate related matters in the city. It also coordinates community level action together with the Local Committees for Disaster Risk Management. A number of international projects assisted the city in building climate resilience:

**152** Urban Resilience Plan of Chokwe, 2017-2027: UN Habitat and a technical center Disaster Management, Sustainability and Urban Resilience? (DiMSUR) help Chokwe develop an urban resilience action plan ?Plano de Ac??o de Resili?ncia da Cidade (PARC) The Plan will identify priority areas that can strengthen the city?s resilience in short, medium and long terms. The project utilizes the CityRAP tool, jointly developed by the UN-Habitat and DiMSUR. The fool facilitates the use of local knowledge and techniques to strengthen risk management of the city. Under this framework, through consultations with relevant stakeholders and a series of exercise, six priority actions were identified for the city:

- Reorder the neighborhoods.
- Improve the drainage system.
- Improve solid waste management.
- Reinforce the street lighting.
- Developing the economy.
- Improving education, infrastructure and health

(DiMSUR, 2021)

**153** Strategic Development Plan, Chokwe (Plano Estrategico de Desenvolvimento. Distrito de Chokwe): the plan is made with technical assistance from FAO and UNDP as a medium-term instrument to reduce poverty. The plan is also part of the decentralization process and of the implementation of Lei n?mero 8 dos ?rg?os Locais do Estado (LOLE) (Government of Chokwe, 2012).

## CCA finance in Chokwe

**154** The municipality ensures financial resources mobilizations to implement CCA actions as one of its key priorities. However, the city does not have any direct access to DFI CCA finance. The city has so far received grants and loans from the following entities through the national government?s facilitation: Project Cities and Climate Change (PCCC), UN Habitat?s support with the Adaptation Fund?s funding, the Project for Local Urban Development (PDUL) from the World Bank, and support from the European Union. The municipality expressed interest in a technical assistance activity helping it to **design funding strategies.** 

**155** In addition, the city has a Local Investment Fund, alimented by the municipal budget, to fund CCA projects.

Proposed alternative scenario with a brief description of expected outcomes and components of the project

**156** Small and medium size cities in LDC and SIDS (hence forward referred to as **target cities**), being in a great need of CCA finance, have a very limited capacity and numerous disabling conditions minimizing their access to an existing pool of private CCA finance. The project therefore aims to develop an enabling mechanism for the target cities to access innovative and private CCA finance in the long run. This mechanism will be developed and piloted in one pilot country/city located in each key region of the Global South ? Africa, Asia-Pacific and Latin America & the Caribbean ? as well as in one pilot country/city of the LDC and of SIDS so that particularities of each of these categories of countries are fully taken into consideration.

**157** The proposed alternative scenario aims to increase climate resilience of small and medium size cities in developing countries, with a particular focus on LDC and SIDS, through improving their access to development CCA finance in the short run and to innovative private sector CCA finance in the long run.

**158** The project identified 3 pilot cities representative of the target city size and of the target country development status:

- English Harbour Town in Antigua and Barbuda, representing SIDS from both the Caribbean and the Pacific regions.

- Savannakhet in Lao PDR, representing LDC and the Asian region.
- Chokwe in Mozambique, representing LDC and the African region.

**159** An extensive analysis of the baseline scenario demonstrated that the target cities hardly have access to CCA finance and, when they do, it majorly takes a shape of national and international development finance arranged in a form of grants or concessional loans, often with the assistance of and through the national government. The baseline analysis also demonstrated that such a situation is majorly due to the target cities and countries? **low creditworthiness**, which reflects their development-in-progress stage. In relation to climate resilience in cities, the latter comprises largely unmet physical infrastructure needs coupled with high climate vulnerabilities, an insufficient legal, regulatory and institutional framework to effectively tackle these vulnerabilities, a limited capacity to assess and quantify climate risks, and to mainstream them into ongoing infrastructure development, conduct a robust capital expenditure planning and effectively implement priority infrastructure projects.

160 Increasing creditworthiness of the target cities is hence critical to enable their access to innovative CCA financial mechanisms. An improved creditworthiness can only be achieved in the long run since it requires a fundamental transformation, which requires at least a few years to dedicated action both at a city and at a country level. The target cities however need to address their climate vulnerabilities urgently. The project thus sets a parallel double track: in the short term, it aims to increase the target cities? capacity to attract Development Financial Institutions (DFI) CCA finance and, in the long term, it aims to help them set the required enabling conditions to access innovative CCA finance. Innovative financial instruments are not necessarily ?new? instruments. A financial instrument is considered as innovative for a specific city if the city did not have access to it so far.

**161 Short-term objective**: Increase city?s climate resilience by identifying and linking to DFI CCA finance (grants and concessional loans) feasible and most impactful CCA projects while laying down foundations for an increased and rated credit.

**162** Long-term objective: Increase city?s creditworthiness and unlock its access to innovative private financing mechanisms for CCA to further strengthen the city?s climate resilience and help the city unlock a smooth and steady socio-economic development.

163 This project will assess the feasibility of different climate change adaptation financial tools and mechanisms potentially suitable for the target cities, select the most appropriate of them for each pilot city, and help each pilot city gradually unlock access to these mechanisms. To achieve this objective, the project will build the capacity of the target cities required to access CCA finance. While the focus of the project is on innovative private financial mechanisms, conventional CCA finance mechanisms will be utilized as intermediary enablers required to equip the target cities and countries with all the necessary conditions to tap into the former.

**164** Cities vary in size, geographical location, fiscal status, creditworthiness and financial autonomy, and they face different challenges in improving their sustainability. Each city requires a strategic approach to urban planning and financing to become a resilient city, and the financial and technical support provided needs to be customized to meet the needs and priorities of the city.

165 This need for a tailored approach has been taken into account during the design of the project activities, especially for the planned workshops. While for Lao PDR and Mozambique, the amount of workshops and participants will be the same, for Antigua and Barbuda the aim is to involve more public and private stakeholders in the workshops to increase the chances of replication and scaling-up of the project activities. Antigua and Barbuda has similar areas to English Harbour for which the CCA measures identified during the project duration could be easily extrapolated. In particular for the island of Antigua, it is possible to mention Falmouth Harbour, St. John?s Harbour, Jolly Harbour, and Parham Harbour. In addition, given the small size of the island and that the tourism sector is quite involved in the operation of the Harbours, the private sector is expected to be more engage in the project activities and therefore, lead to higher opportunities to unlock private investments.

166 At the regional level, it is also possible to say that the Caribbean region represents a good opportunity to stream the results of the project. Most of the countries not only have similar geography, but also face the same challenges due to climate change and their economic dependence on tourism. In addition, the existence of regional initiatives like the Caribbean Community (CARICOM) that foster cooperation among the Caribbean countries, could serve as platform to disseminate the project results and set the basis for the development of similar regional projects.

**167** It is planned that the implementing entity and executing entities will be responsible for the following components of the project:

Table 2: Roles and responsibilities

Partner	Role in the project		
Executing and implementing agencies			

UN Habitat	Executing agency Provides advisory support to the execution of Component 1 and implements Component 2. In particular, it will support project implementation in the three pilot cities through its country/regional offices. Supports UNEP/CTCN in implementing Component 3.
	UN Habitat has been working for at least 10 years in Mozambique, Lao and Antigua and Barbuda, and has local offices in these countries. Climate adaptation and climate finance have been one of its important scopes of work in these 3 countries. In addition, UN Habitat has direct connection to each of the 3 selected cities, a developed network, and the capacity to act as a local entity on behalf of the selected cities.
UNEP/CTCN	Executing agency Co-host agency to the CTCN, UNEP executes Component 1 and 3, and provides advisory support to the execution of Component 2. The procurement actions and the operational services will be carried forward in accordance with UNEP policies and procurement guidelines. The selection of the institution from the Network of CTCN for the execution of activities of the technical assistance is conducted through a competitive procurement process as per UNEP Rules and Regulations, in line with CTCN procedures.
UNIDO	Implementing agency Is assigned to Component 4, which involves the final evaluations of the project. UNIDO, being the co-host of the CTCN, and a specialized agency established under the UN Charter, will conduct the implementation activities (incl. procurement and recruitment) in line with its established policies and procedures.

**168** Thus, the involved entities will be in charge of the execution of the project components as it follows:

- Component 1: Municipal financing toolkit for climate change adaptation - main responsible CTCN/UNEP, with advisory support from UN Habitat.

- Component 2: Piloting of the toolkit developed in component 1- main responsible UN Habitat with advisory support from CTCN/UNEP.

- Component 3: Project monitoring and learning - main responsible CTCN/ UNEP with the advisory support of UN Habitat.

- Component 4: Project evaluation ? main responsible UNIDO

Further details are provided in the indicative budget for the project.

**169** After the PIF was approved by the GEF, new mayors for the cities of Chokwe and Kaysone Phomvihane assumed offices in the local government administration. As well as new Lao and Mozambique?s GEF Operational Focal Points were appointed. UNIDO local representative, CTCN focal points and UN Habitat, contacted the new representatives at country and city level during the preparation of the proposal. A first call was organized with each city to introduce the context and the objective of the project after which the draft proposal was sent for review. The selected cities were active in the revision of the activities, outcomes, as well as the definition of the Stakeholder Engagement Plan and of the List of Stakeholders presented in Annex H. The cities were also directly involved to justify the reasons their cities had been selected to be the host of this proposal and provide information about existing initiatives available locally to access CCA finance. During

project implementation, the stakeholders will be the key decision makers to design specific climate change adaptation financial tools and mechanisms potentially suitable for their cities and create capacity of future users on the application of these tools to support pilot cities to gradually unlock access to these mechanisms. UN Habitat officers in the countries that had been involved in the definition of the proposal since the PIF will be maintained. UN Habitat has been selected as an executing entity for the activities to be conducted in the field and also to act as local entity in the countries. Therefore, UN Habitat will have a dual role in the project, acting as a global agency and local entities.

**170** UN Habitat has extensive experience implementing projects in different regions and has a well-built network in the three countries. The involvement of UN Habitat will not only provide the necessary local support to develop the project, but also will contribute to a better synchronization and tailoring of activities. The local offices of UN Habitat will work in a coordinated way, which is expected to result into a more effective use of resources, exchange of experiences and lessons learned, and address possible issues in a global way. UN Habitat involvement will also ensure that the results and knowledge gained throughout the project remain in the ownership of the country. As defined by the GEF guidelines[3], the selected cities are considered as beneficiaries of the project.

### Project?s Theory of Change

171 The challenges faced by the selected cities are increasing climate change events in frequency and intensity, while developing countries struggle to invest in urban resilience due to an absence of mechanisms adapted to small and medium sized cities, an insufficient private sector involvement and inexistent enabling environment for CCA technologies proliferation. This project plans to address these challenges and problems through 4 components: i) the development of a municipal financial toolkit, ii) the piloting of the toolkit, iii) the project monitoring and learning and finally iv) the project evaluation. The results expected are that municipal officers of the 3 cities have access and are capacitated to use the toolkit, that CCA investments projects are prioritized and opportunities for private sector are identified, lessons learned are capture and knowledge is disseminated, and project is evaluated to ensure its sustainability. The main impact will be an increase resilience of the selected cities by the adoption of CCA solutions through an improved capital expenditure planning and access to innovative financing mechanisms. The project?s theory of change is illustrated below:

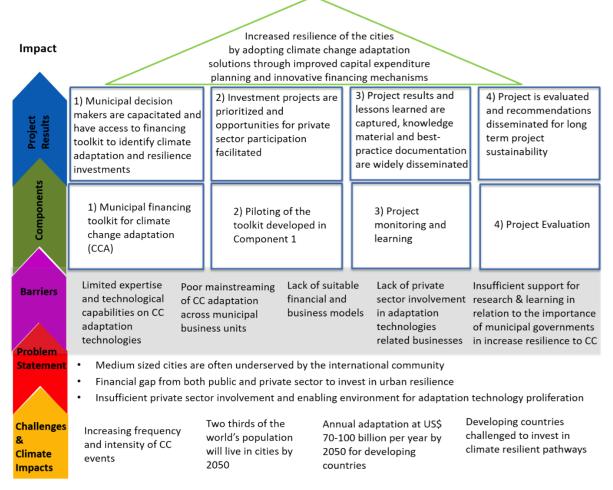


Figure 27: Theory of Change

Component 1: Municipal financing toolkit for climate change adaptation (CCA)

**172** If cities and countries want to achieve greater climate resilience, they need to have budgets and capital plans that help them do so. A municipal financing toolkit will hence, be developed to help target cities achieve this objective.

**173** A **capital investment plan** is a policy tool through which municipal and national governments can plan how to lift their economic development and, as part of that, their climate resilience, through well sequenced and prioritized projects. The scale of these projects can be small, medium or large. Its size and assessed risk will however influence the extent of financial support, which can be attracted, as well as the cost of this support.

Outcome 1.1: A financing toolkit for CCA to increase the planning capacities of policymakers from small and medium size cities

**174** The financing toolkit represents a range of tools to help the target cities identify and access available and innovative CCA technologies in urban planning and finance. The toolkit also focuses on enhancing the financial planning capacities of the municipal decision-makers.

Output 1.1.1: A financing toolkit for small and medium size cities is developed and disseminated. It includes tools to assess CCA technologies in urban planning and innovative financing

Activity 1.1.1.0 ? Steering Committee Creation

With the objective of involving the city and country representatives from the project start, a Steering Committee will be created for each city. This Committee will be involved in the review of the project documents and the decision making to facilitate not only the project implementation but also the adequacy of the toolkit to be developed.

Activity 1.1.1.1 - Develop a 6-tools sequenced financial toolkit

175 Presentation of tools and methods to assess CCA Technologies for medium-size cities

**176** A combination of CCA projects (e.g., protect low lying areas from floods, minimize heat island effect) and regular infrastructure projects with a climate resilience component (e.g., a drainage system designed for more frequent and intense rainfalls) is required to minimize a city?s climate change related risks and hence increase its economic attractiveness and creditworthiness. Tools 1 to 2 help the city prepare a list of prioritized CCA projects. Tool 3 helps the city strengthen its budget management and capital expenditure capacity and prepare a list of prioritized regular infrastructure projects with add-on climate adaptation measures to ensure climate resilience of related investments. Tools 4 to 6 help linking both kinds of projects to finance.

177 The toolkit will be developed for the specific needs and conditions of the target cities and enable them to:

- Assess the city?s climate vulnerabilities (Tool 1)

- Identify and prioritize CCA actions and projects, which will help the city avoid identified

damages and increase climate resilience (Tool 2)

- Initiate a robust capital expenditure planning (Tool 3)
- Unlock access to CCA finance (Tool 4)
- Present selected CCA projects to identified private sector financiers (Tool 5)
- Request a credit rating and build strategic partnerships with the private sector (Tool 6)

**178** The methods and tools should be common to the 3 countries to ease its replication in other territories. The results of the tools will be customized to each city.

**179** The tools will also consider social and gender aspects to support the assessment and identification of responses.

Activity 1.1.1.2 - Analyse common obstacles to accessing finance

**180** The activity will include gaining a deep understanding of barriers faced by the targeted cities in the targeted countries so that they can comfortably apply the toolkit. The barriers will be identified for each of the 3 selected countries and will include technological, technical, organizational, lack of readiness to access adaptation finance, institutional, political, data availability and other barriers that would be relevant. The barriers will be identified through a desk review of existing reports, surveys, bibliographical documents and will be completed by bilateral

meetings and interviews with key stakeholders of each selected city and country. An estimate of 10 interviews /bilateral meetings should be held by country (30 in total). These meetings could be held virtually.

Activity 1.1.1.3 - Develop a climate-smart expenditure tool to integrate CCA in municipal budget

**181** This activity will initiate the design of a robust climate resilience sensitive capital expenditure planning for the city, which corresponds to tool 3. A **capital expenditure plan** is a policy tool through which the municipal government can plan how to lift the city?s economic development and, as part of that, the city?s climate resilience, through well-sequenced and prioritized projects. The scale of these projects can be small, medium or large. Their size and assessed risk will however influence the extent of financial support, which can be attracted, as well as the cost of this support.

**182** The Tool 3 will utilize elements of UNIDO?s **Climate-Smart Capital Investment Planning (CS-CIP) workbook**, originally developed by the World Bank. While selected elements of the CS-CIP can be successfully used in the target cities, other elements may be over ambitious in the short run. Only appropriate elements of the CS-CIP will hence be introduced into Tool 3. Tools 1 to 2 cover some of the steps under SC-CIP in a manner more tailored to the targeted cities and to the specifics of CCA.

Activity 1.1.1.4 - Formulate a roadmap for identifying and accessing other innovative sources of financing

**183** A step-by-step roadmap will be designed to describe the process for the 3 selected small and medium size cities to identify the innovative sources of financing and access these sources of financing. This roadmap could be divided in section based on the profile of the user (municipal or national), and by sector (CCA, Climate resilience, infrastructure, planning, etc.).

Activity 1.1.1.5 - Benchmark case studies and additional resources from innovative CCA financial instruments based on successful global experiences

**184** A benchmark of successful global experiences in the use of CCA financial instruments for small and medium cities will be presented in a report. If possible, a webinar with the representatives of one case study per region will be organized. This activity could provide a focal point to each of the cities and enable the cities to learn from previous experience in their region.

185 The toolkit will be developed in a visual, intuitive and user-friendly format, which will be finalized based on a preference assessment of the participating pilot cities and countries. It will include separate sections for the country level and for the municipal level, contain detailed guidance of each step, including illustrative case studies and examples, and enable entering, calculating and saving data.

Deliverables Output 1.1.1:

- 1 Report on the tools and methods that should be used to assess CCA technologies for medium small size cities.

- 3 Analyses of obstacles to accessing finance, one for each country.

- 3 Roadmaps for identifying and accessing other innovative sources of financing, one for each city.

- 1 Case Studies Report of successful global experiences from innovative CCA financial instruments

- 1 Interactive and automated financial toolkit (content and automated software)

Output 1.1.2: 60 municipal planners from 3 cities (20/per city) trained in the municipal financing toolkit and climate finance

**186** The training will introduce municipal and national level officials to the draft financing toolkit and help strengthen their technical capacities to implement the different steps of the toolkit. The training will seek women?s participation to be at least 40%.

Activity 1.1.2.1 - Develop training materials and agenda

**187** Based on the financial toolkit developed under Activity 1.1.1.1, a set of training materials will be developed targeting national and municipal officials. The training materials will be tailored for each of the 3 cities to ensure the trainings are customized to the context in which the 3 cities evolve. Training materials will be developed in English, and translated, at least in the official language of the 3 selected cities. If requested by the cities, one additional translation could be done.

**188** Training materials will have 2 sets of content:

- Training material targeting municipal officials
- Training material targeting national officials

**189** A detailed approach and agenda of the training will be developed. It will contain sessions common to both the national and the municipal officials and sessions specific to each segment of officials.

Common sessions

**190** The common sessions will include, at least:

- Results of the analysis of obstacles accessing finance, one for each country

- Presentation of the respective roadmaps to identify and access innovative sources of financing

- Presentation of the tools and methods that should be used to assess CCA technologies for small and medium size cities

- Presentation of successful case studies (through a webinar with one case study by region if possible)

Specific sessions

**191** The specific sessions for municipal officers and national officers will include at least:

- A demonstration and explanation of the 6-tools sequenced financial toolkit

- An exercise to familiarize the users with the 6-tools sequenced financial toolkit

- A presentation of the climate-smart capital expenditure tool to integrate Climate Change

Adaptation in national and municipal budgets

- An exercise on the climate-smart capital expenditure tool

- Climate Change risk screening

- Environmental and Social Safeguards consideration for the stakeholder and decision makers

**192** The training will aim to facilitate a connection between national and municipal officials in order to later empower cooperation between them on aspects requiring the national assistance, such as helping the city prepare proposals and access DFI CCA finance and accessing sub-sovereign

transactions. The training will also aim to mix theoretical sessions with practical and interactive sessions.

Activity 1.1.2.2 Organize short training workshops, including online learning

**193** In addition and independently from the official trainings composed of 2 sets, online short training workshops will be organized to work on specific capacity needs as requested by the cities or as identified by the executing entities. These short training workshops could be limited to a very specific public (investors, banking institutions, planning officers, climate change experts or else). These workshops will be held virtually and will have a duration of 1 to 2 hours. These online trainings will be recorded and will be available for at least 30 days after the session. The participation to these trainings is not defined and could vary from 5 to 25 persons approximately. It is estimated that 3 of these short-training workshops will be requested for Lao PDR and Mozambique and 5 for Antigua and Barbuda. The material should be prepared in English as well as in the local language of the respective cities.

Activity 1.1.2.3 - Map key stakeholders

**194** A detailed stakeholder analysis for each of the 3 cities should be done. This stakeholder mapping will aim at identifying all the institutions, entities, and focal points from the public that should benefit from the trainings and workshops planned during the implementation of this project. This identification will ensure representation of officials responsible for all the key aspects of the toolkit, such as climate risk assessment, associated economic losses assessment, urban planning, infrastructure planning, financial planning, policy, and regulatory support.

**195** As some of the project activities have the private sector as main target, key stakeholders from this sector should also be mapped for each city/country.

**196** The mapping should be presented as a table, which will clearly indicate the institutions represented, the sector of expertise, the name and contact details of the focal points, as well as the gender.

Activity 1.1.2.4 Conduct a training in each city from each participating country

**197** A 3-day training will be conducted in each participating city of each participating country:

- English Harbour Town in Antigua and Barbuda
- Savannakhet in Lao PDR
- Chokwe in Mozambique

**198** During the morning of the first day, both the municipal and the national officials will be invited. It is expected that up to 20 persons will be present (15 municipal officers and up to 5 national officers) for Lao PDR and Mozambique and up to 25 (18 municipal officers and 7 national officers) for Antigua and Barbuda. This corresponds to the common session described in activity 1.1.2.1. The objective of this session will be to present:

- Results of the analysis of obstacles to accessing finance, one for each country.

- Presentation of the respective roadmaps to identify and access innovative sources of financing.

- Presentation of the tools and methods that should be used to assess CCA technologies for medium and scale cities.

- The successful case studies (through a webinar with one case study by regions if possible).

**199** In the afternoon of the first day, the training will include sessions open to representatives from the private sector, the academia, the civil society, and NGO representatives to help build a

better stakeholder engagement and cooperation within the selected cities. The project stakeholders will play a more active role in subsequent steps of the toolkit. It is therefore important to familiarize them with key steps of the toolkit and facilitate interaction between them. An average of 50 persons is expected to participate.

**200** Day 2 as well as day 3 will be dedicated to municipal officials only and corresponds to the specific sessions described in activity 1.1.2.1. This session will be an interactive process, during which the municipal officers will test the toolkit and learn how to use it. It is important that the dynamic of this training includes exercises in small groups as well as individually. These working sessions should enable the municipal officers to raise their questions, and understand how the toolkit has been designed and how to use it efficiently. They should understand and test the different functionalities of the 6 tools, but also the interconnections among the tools. If the need for modifications if identified during this training, changes to the toolkit will be made afterwards. 15 persons are expected to attend these workshops in each of the 3 cities.

Activity 1.1.2.5 ? Collect feedback and lessons learned from the training

**201** In view of the comments received during the trainings held in activity 1.1.2, feedbacks will be collected from participants on positive and improvement points on the toolkit, the training materials and the training methods. In order to collect this feedback, a post-training questionnaire will be developed and circulated for each session including the common sessions held on day 1 with municipal and national officers, the public session held on day 1 with the public sector, NGO, academia and other stakeholders, and for the specific sessions of day 2 and 3 with municipal officers.

Deliverables Output 1.1.2:

- 2 Sets of training materials (for the common and specific sessions) designed for each country it at least 2 languages (English and the local language of the respective city), thus 12 training materials (incl. presentations, case studies, training booklets, training software and/or other materials as assessed to be most effective in the course of preparing the training)

- 6 Training methods, one for each set of each country

- 6 Agendas, one for each selected city and sessions.

- Minimum 3 online short training workshops held for each of the 3 cities. This deliverable includes: the list of participants disaggregated by gender, the materials produced in English and local languages, a minute of each workshop with an agenda and expected results.

- 3 Maps of key stakeholders, one for each selected city.

- A 3-day training conducted in each participating city. This should include at least: Training materials for each of the sessions in English and respective local language and for each day and each country, a list of participants disaggregated by gender, photos of the events.

- 3 Post trainings questionnaires for each city developed (one for the common session with municipal and national officers, one for the open session in presence of the private sector, academia, NGO, etc.) and one for the 2 days trainings specific to municipal officers. A summary report on points to enhance and to improve in the toolkit, the training materials, and the training method used to ensure the participation and involvement of the experts, as well as other aspects that could have been detected in the post training questionnaires.

Output 1.1.3: A set of high potential climate adaptation and resilience financing solutions are mapped out and prioritized based on their ability to support investment

Activity 1.1.3.1 - Map international, regional, domestic financing mechanisms and funds

**202** A mapping of the international, regional, domestic financing mechanisms and funds will be elaborated for each of the selected city. This mapping will describe the sectors of activities of each of these funds, the minimum and maximum funding available through these mechanisms, the eligibility criteria as well as a direct definition of what could be the used of these resources to increase the resilience to climate change effects of the 3 selected cities.

**203** The sources of financing should contemplate the usual resources as well as innovative financing options.

Activity 1.1.3.2 ? Implement a toolkit to the selected cities

204 Municipal officials will learn to apply Tools 1 and 2 to their respective city.

**205** Tool 1: Assess the city?s climate vulnerabilities

**206** Tool 2: Identify and prioritize CCA actions and projects that will help the city avoid identified damages and increase climate resilience. Small and medium size cities may not possess sufficient human resources to conduct the assessments under Tool 1. While it is important for the municipality to have a solid in-house understanding of the matter, it may reveal challenging for the target cities to develop and retain such a full-fledged technical expertise, which is scarcely available even in a large number of larger cities. Tools 1 hence focus on **building a basic capacity within the municipality**.

Implementing Tool 1: Assess present and future climate risks and associated city vulnerabilities

**207** Tool 1 is a pre-requisite to tackle climate vulnerabilities within the city and to access CCA finance requirements. Indeed, any funding institution, be it a development agency or a private agency, will need to understand the quantified anticipated CCA benefits of the intervention.

**208** Thus, the first step of this activity will aim at having bilateral meetings and interviews with international, regional, domestic financing mechanisms and funds mapped during previous activity in order to list the indicators that are used by these respective entities to monitor the benefits of CCA interventions. It is planned that up to 10 bilateral or virtual interviews or meetings should be held for each city. A final report listing these indicators will be produced for each of the cities. This report will also highlight in a matrix the indicators requested by different funding institutions, and the one only requested by one institution.

**209** Once the indicators will be identified and listed in a report, the second step will consist of comparing the existing data and information available with the requested indicators with the objective to identify the gaps and barriers between the available data versus the requested information. A special attention will be given to the scale of the information requested versus the information available, as well as the validity of the data or indicators requested by the financing agencies.

**210** The final result of this step should be summarized in a gap report, which will include a matrix of the most important indicators (important because requested by a large number of institutions, or by the most relevant institutions for the purpose of implementing resilient measures in the selected cities) that cannot be monitored because of a lack of available data. This report will conclude with a list of recommendations on the data that should urgently be generated by the country and/or by the cities on vulnerability to climate change. Focus will be made on obtaining gender-disaggregated indicators.

Identify ongoing, implemented or planned CCA measures and actions for each city

**211** This activity will need to list possible actions that have been identified, initiated or already implemented by the 3 cities to increase the resilience to climate change. For this purpose, a bibliographic review of all existing climate change strategies should be done including the national NDC, GCF programmes, NAP, and other municipal plans and strategies. All adaptation actions and measures identified at local and national level will be summarized in an excel.

**212** This activity should enable to filter the actions by sectors (adaptation, resilience, infrastructure, planning, etc.).

Implementing Tool 2 - Identify and prioritise CCA actions and projects to avoid identified damages and increase city?s CR

**213** Through applying Tool 2, the city will identify and prioritize interventions and projects based on anticipated highest positive and long-lasting impact. In particular, it will assess which interventions can be implemented without extensive funding through implementing city planning and regulations such as, for example, an ecosystem-based adaptation (EbA) through an effective land cover control. Finally, the city will identify opportunities of mainstreaming climate risk into city plans, while considering also sustainability and social impact.

**214** Finally, the projects prioritized will be compared with the mapped financial institutions for each region, with the objective to identify if any of these projects could be financed by the identified funding mechanisms.

**215** A report will be delivered summarizing the possible options of financing of each prioritized project, as well as the barriers, gaps or bottlenecks that could unable the access to these mechanisms.

**216** Also, the report will analyze innovative mechanisms and propose recommendations on the way forward to accessing financing mechanisms for the selected cities in order to implement the identified prioritized projects.

Deliverables Output 1.1.3:

- Tool 1

- 3 Reports listing the indicators that are used by the mapped local entities in order to monitor the benefits of CCA interventions (one for each city/country).

- 3 Gap reports, one for each city, comparing the climate vulnerability data available in the city/country versus the information requested by the financing institutions, including a recommendation summary on the data that should urgently be generated by the country and /or by the cities to ensure access to finance to these small and medium sized cities.

- Identifying ongoing, implemented or planned CCA activities:

- 3 Excel tables listing all national and local climate change adaptation actions and measures defined in strategic documents

- Tool 2

- 3 Prioritized list of non-structural actions which mainstream CCA into city urban plans (one for each selected cities)

- 3 Prioritized list of projects that require CCA finance. Projects will be prioritized at two levels:

- Level 1: projects eligible for DFI financing

- Level 2: projects requiring innovative private sector financing

- 3 Final reports comparing the prioritized projects of each city with its respective mapping of funding mechanisms including the identification of barriers to access some funds and a final list of recommendations.

Output 1.1.4: Communication materials for knowledge management are developed and disseminated among NDEs and GEF Operational focal points

**217** In order to initiate dissemination of the financial toolkit and associated training materials with the objective of mainstreaming the process into other small and medium cities in the LDC and the SIDS, a set of communication materials on the financial toolkit will be developed.

Activity 1.1.4.1 ? Engage with domestic and regional stakeholders including national focal points to global funds

**218** The UNFCCC country focal points for technology (NDE) and finance (NDA), as well as GEF Operational focal points, will provide active support to the selected CTCN's Network Member in the execution of this technical assistance. Their roles as country focal points will include, but not be limited to: ensuring the activities associated with the implementation of this technical assistance are aligned with national climate priorities; promote and engage with key stakeholders as identified by the Network Member; promote and present this technical assistance in climate change-related events; and participate in CTCN events and in national workshops affiliated with this technical assistance, if required. They will also be expected to provide guidance and review any relevant documents produced and will be kept apprised of the progress of the technical assistance. The role of the NDE, the NDA, and the GEF Operational focal points is that of coordination and will ensure effective engagement of the country stakeholders to ensure country ownership of the process.

**219** Domestic and regional stakeholders, including the focal points of global funds, will be invited to a regional webinar in which the network partner will present the results of Output 1.1.3 and the conclusions. This webinar (one per region) would be held online. For the Asia and African regions, it is expected that between 25-30 persons will be attending, while for the Caribbean region up to 40 participants will be invited. The objective of such regional webinars will be to inform of the problematic for small and medium size cities to access funding mechanisms for climate adaptation projects, the importance for these small and medium cities to adapt to the effects of climate change, and a presentation of this programme and the preliminary results on tool 1 and 2.

Activity 1.1.4.2 ? Engage with global programmes to support private sector engagement

**220** A **private sector engagement webinar** will be organized for private sector stakeholder representatives of each country to:

- Raise awareness on business advantages related to implementing climate adaptation technologies versus business-as-usual technologies.

- Improve the perception climate change opportunities.

- Train trainers who will be in a position to further spread the knowledge in various localities of the 3 countries

This workshop should be held in person, with an average of 50 participants for Lao PDR and Mozambique, and 60 participants for Antigua and Barbuda.

**221** The activity will seek women?s participation to be at least 40%

Activity 1.1.4.3 ? Convert training packages and toolkit into dissemination material

**222** Finally, a booklet on the financial toolkit and associated training will be developed. It will elucidate the need for such toolkit and training, the potential gains for the targeted cities and countries, summarize the content of the toolkit and the training, as well as indicate practical details on how and where these can be accessed.

**223** The booklet will be disseminated to all the CTCN?s NDEs, and GEF Operational focal points, located in targeted LDC and SIDS countries. The dissemination will be combined with a webinar introducing the toolkit and the training to the NDEs and GEF Operational focal points.

Deliverables Output 1.1.4:

- 3 Webinars conducted with domestic and regional stakeholders including national focal points to global funds, one in each region This includes the materials (in English and local language), the list of participants disaggregated by gender, some photos of the event and a minute of the webinar
- 3 Workshops with the private sector representatives of each country. This includes the materials (in English and local language), the list of participants disaggregated by gender, some photos of the event and a minute of the webinar

- A booklet presenting the financial toolkit and the training (electronic version) shared with all the relevant NDEs and GEF Operational focal points. This booklet will be translated into the 3 local languages of the 3 selected cities as well as in English and should be developed in a gender-responsive manner.

Component 2: Piloting of the toolkit developed in Component 1

Outcome 2.1: Selected climate adaptation and resilience financing methods are prioritized and adapted in three selected small and medium size cities

Output 2.1.1: Adaptation technology financing plans for 3 small and medium size cities are developed

Activity 2.1.1.1 ? Implementing Tool 3 ? Initiate a robust capital expenditure planning (Steps 1 to 4)

**224** The objective of this activity will be to train municipal officers in identifying, prioritizing, and defining a robust expenditure plan for climate proof city?s infrastructure project. Tool 3 is composed of 12 steps. These steps will contribute to both the short-term objective of increasing the city?s climate resilience through mainstreaming climate resilience components into city?s priority infrastructure projects and to the long-term objective of improving the city?s creditworthiness and tapping into innovative financial mechanisms.

**225** The activity will include 4 trainings sessions to enhance capacity of the municipal officers on the first 4 steps:

- Training session 1 (2 days): Formulating a socio-economic development vision through an analysis of city?s key assets and challenges (Step 1). Such a vision is important to mobilize stakeholders and showcase a long-term commitment to a sustained and a sustainable development to financiers. This commitment is considered one of the key elements of a good creditworthiness. The training session will have a duration of 2 days and will be implemented in each of the 3 cities. Materials will be made available in English and respective local languages of the cities. The timeline of these meetings will be defined in the agenda prepared in activity 1.1 to ensure the commitment of the municipal officers.

- Training session 2 (0,5 day): Identifying and prioritizing infrastructure projects required to achieve this vision, including identifying appropriate CCA technologies (Step 2). The matrices produced in activity 1.1.3 are mainly focused on CCA activities. This time, the exercise will list infrastructure-prioritized projects. Appropriate CCA technologies relevant for these selected infrastructure projects will be identified.

- Training Session 3 (0,5 day): Based on information collected under Tools 1 and 2, identifying key climate related risks likely to affect each of the identified infrastructure projects (Step 3). Session 2 and 3 could be held the same day.

- Training Session 4 (2 days): Defining climate resilience measures to mainstream into each project identified under Step 3 and calculating associated additional cost (Step 4). Step 4 takes into consideration positive effects of highest priority CCA interventions identified under Task 3. For example: if a protection and a regeneration of a water catchment area in a city area prone to floods and future flood risks has been identified as a key priority intervention, a drainage system expansion could take into account the effects of the above intervention when identifying the maximum water volume thus, optimizing the cost of the latter project.

Activity 2.1.1.2 ? Identify strategic barriers to tapping into innovative private CCA finance and feasible solutions to address them (Tool 3, Steps 5 and 6)

**226** Projects selected for DFI financing may not directly depend on these steps, but these steps are critical to unlock access to innovative and private sector financing in the long run.

227 The activity will include, for each city:

- Mapping barriers preventing or slowing down the city?s access to innovative private CCA finance (Step 5). These may include key national and municipal policy and regulatory, institutional, planning, resources, and capacity barriers, as well as key municipal infrastructural barriers. This step will be done by the Network Partner of the CTCN.

- Identifying solutions to mapped barriers at the municipal and national levels (Step 6). These solutions will include feasible national and municipal actions to address policy and regulatory, institutional, planning, resources, and capacity barriers; and city infrastructure development activities to address municipal infrastructural barriers. This step will be also developed by the Network Partner of the CTCN.

- Considering that many trainings sessions and direct interactions with the local municipal officers would have already occurred at this stage of the project, it is estimated that no further interviews or bilateral meetings would be required. However, should it be necessary, the Network Partner of the CTCN could organize virtual meetings with governmental bodies or other relevant stakeholders to achieve step 5 and 6 of the tool 3.

Activity 2.1.1.3 ? Improve on city?s capital expenditure planning and prioritise climate resilience capital investments (Tool 3, Steps 7 to 10)

**228** Under this activity, the city will build capacity and improve its capital expenditure planning. This will both help the city facilitate access to priority climate resilience investments and improve its creditworthiness in the long term. The activity will include trainings of the municipal officers on tool 3:

- Training session 5 (2 days): Strengthening the city?s revenue and expenditure planning capacity (Step 7)

- Training session 6 (1 day): Assessing the city?s capital expenditure needs and capacities (Step 8)

- Training session 7 (1 day): Listing and prioritizing climate resilience capital investments based on projects prioritized under Steps 2, 3 and 4 (Step 9)

- Training session 8 (1 day): Building capacity and estimating cost of prioritized projects (capital, operating, lifecycle) (Step 10)

Deliverables Output 2.1.1:

- City?s socio-economic development vision formulated (results of step 1)
- List of prioritized infrastructure projects (results of step 2)

- For each prioritized infrastructure project:

- Identified climate risks over the project?s targeted life cycle (results of step 3)

- Identified climate resilience measures and associated add-on costs (results of step 4)

- Report on the 5 days training including a list of participants for each day, disaggregated by gender, materials of the session in English and respective local languages, photos, post-training survey.

- 3 Reports highlighting strategic barriers preventing the city from accessing innovative private CCA finance and feasible solutions to address these barriers.

- Improved capacity of relevant municipal officials to conduct capital expenditure planning.

- City?s capital expenditure planned for the next 3 to 10 years based on priority expenditure needs and capacities (results of Step 7 & 8)

- City?s climate resilience capital investments assessed and prioritized (results of step 9&10).

- Report on the 5 days training including a list of participants for each day, disaggregated by gender, materials of the session in English and respective local languages, photos, post-training survey.

Output 2.1.2: Investment projects are prioritized based on their adaptation impact, attractiveness to finance private sector and their financing options

**229** At this stage, the city will holistically prioritize all the identified projects, including both CCA projects and regular infrastructure projects requiring climate resilience components ? and set up a long-term project finance action plan. The prioritizations will also consider sustainability and social impact of the projects.

Activity 2.1.2.1 ? Prepare an overarching list of prioritised projects combining CCA projects and regular infrastructure projects with a CR component (Tool 3, Steps 11 and 12)

**230** Preparing a list of prioritized infrastructure projects that include a necessary climate resilience component (Step 11). Projects will be prioritized at two levels:

- Level 1: projects eligible for DFI financing

- Level 2: projects requiring innovative private sector financing

**231** Preparing an overarching list of prioritized projects combining CCA projects and regular infrastructure projects with a CR component (Step 12). This list will clarify which projects the city has decided to fund and implement as an outmost priority over the next few years.

Activity 2.1.2.2 ? Identify funding sources and prepare an action plan to link identified projects to CCA finance (Tool 4)

**232** Based on an overarching list of prioritized projects prepared under Tool 3 Step 12, Tool 4 - Unlock access to CCA finance, will help the city identify sources of finance and, based on the anticipated speed of the identified funds? obtainment and disbursement for each project, prepare a timeline and an action plan of obtaining and disbursing the required funds.

**233** This activity will include 3 sub-activities. These sub-activities will require full engagement from the cities. A one-day workshop will be organized in presence of the key municipal officers and relevant governmental bodies of the cities to take the following decision:

**234** Identify projects to be implemented with the city?s own municipal capital expenditure (Tool 4.1). Based on outcomes of implementing Tool 3, the city will assess its capital expenditure capacity over an identified time span (3 to 10 years depending on the implementation duration of the projects to fund) and finalize projects to be funded by its own capital expenditure budget.

**235** Tap into already accessible CCA finance opportunities and prioritize those the city can most confidently tap into in the short run (Tool 4.2). This sub-activity will help the city promptly address its priority CCA needs through conventional DFI provided CCA finance. It will include mapping DFI provided CCA finance opportunities the city is familiar with and runs a fair chance of obtaining at the present stage of its development; identifying most promising opportunities for the prioritized projects identified under Tools 2 and 4; undergoing training on project preparation; and, preparing 1 to 2 highest priority project proposals to submit to identified financiers.

**236** Identify innovative CCA finance mechanisms and prioritize those the city can most confidently tap into in the long run (Tool 4.3). This sub-activity meets the city?s long-term objective of tapping into innovative private sector finance. It includes mapping innovative CCA finance opportunities the city can realistically tap into for the prioritized projects identified under Tools 2 and 4; and, designing an action plan to facilitate access to these opportunities.

Deliverables Output 2.1.2:

- An overarching list of projects prioritized combining CCA projects and regular infrastructure projects based on DFA and on innovative private sector financing opportunities.

- Preparing an overarching list of prioritized projects combining CCA projects and regular infrastructure projects with a CR component.

- A list of CCA interventions and projects to be funded with the city?s own capital expenditure budget

- 1 to 2 project proposals to submit to relevant DFI

- Action plan to access innovative private sector finance for suitable city projects

- Report of the workshop with list of participants disaggregated by gender.

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Output 2.1.3: Adaptation technology financing plans are presented to selected members of the financial community

**237** The present output will conclude the participating cities? efforts in applying the financial toolkit and lead them to presenting selected CCA projects to private sector financiers and to request a credit rating.

Activity 2.1.3.1 ? Present selected CCA projects to identified private sector financiers (Tool 5)

**238** This activity will include identifying and conveying targeted innovative private sector finance representatives; organizing and conducting a pitch and exchange seminar to select 3 to 5 projects; preparing a detailed presentation for each project to present; and collecting lessons learned.

**239** The seminar will have a duration of 1 day and will be organized in person with a restrictive attendance of key private sector finance representatives, key municipal officers, as well as the implementer. Up to 12 persons should be expected for Lao PDR and Mozambique, and up to 15 for Antigua and Barbuda. The presentations will be made in the local language while materials of the session will be made available in English and respective local language of the cities.

**240** The seminar should be organized at least 1 month in advance to ensure the availability of all the participants.

Activity 2.1.3.2 ? Request a credit rating and build strategic partnerships with the private sector (Tool 6)

**241** Towards the end of the project cycle, the city will invite a credit rating agency to assess its creditworthiness and attribute a rating. Assuming that the earlier activities were successfully conducted, participating cities stand a reasonable chance to receive a rating allowing them to seek CCA finance from CCA bonds and other innovative financial mechanisms.

**242** Note: Very small size cities in SIDS, such as English Harbour Town, are likely to still face difficulties with successfully completing this step. In such a case, the city may continue tapping into funding typically provided under a sovereign guarantee. For SIDS, the effort could instead focus on increasing the country?s credit rating.

**243** The activity will include preparing required documentation, organizing the credit rating agency?s visit and facilitating its task.

Deliverables output 2.1.3:

- A 1-day seminar conducted in each participating city or its country capital (as per financiers? availability)

- Pitch presentations in English and respective local languages
- Report on lessons learned
- List of participants disaggregated by gender.
- Credit rating agency?s visit to the city and attribution of a credit rating

Output 2.1.4: 3 Regional workshops are organized to present the toolkit and city case studies to their respective regions

**244** At this stage, lessons learned from the experience of the 3 cities and countries participating into the present project will be documented in detail and presented at a regional workshop in each of the 3 participating regions (Africa, Asia and the Caribbean).

Activity 2.1.4.1 ? Collect lessons learned through the activities conducted thus far

**245** This report of lessons learned will be drafted by the Network Partner of the CTCN and shared with the municipal officers through an online questionnaire. The online questionnaire will be designed with tick box to optimize the time required of the municipal officers. The results will be analyzed and reported in one report by city as well as one global report highlighting the common lessons learned between the 3 regions.

Activity 2.1.4.2 ? Conduct 3 regional online workshops

**246** A 2-Day regional workshop will be organized in the capital or in the participating city of each participating country. It will convey 5 to 10 representatives from at least 15 countries (both from the national level and from target cities in these countries) for the Asian and African regions.

While for the Caribbean region, it will be proposed that selected SIDS from the Pacific region join the workshop given the relevance of its lessons learned for them. Therefore, approximately 25 countries are expected to participate for this case.

**247** The workshop will present the toolkit along with lessons learned and case studies from the participating countries and cities.

Activity 2.1.4.3 ? Organize municipal financing sessions

**248** Up to 3 online sessions on municipal financing will be organized alongside periodical CTCN regional workshops. These sessions will be addressed to NDE, GEF Operational focal points, national officers and regional officers of developing countries, including the 3 countries selected for this proposal as well as other countries from the regions. The objective of these sessions would be to scale-up the toolkit to other territories, explaining briefly its principles, the challenges, the objectives, and the results obtained. Municipal officers of the selected cities will be welcome to share their experience during these sessions. Around 20 attendees for the Asian and African regions and 25 for the Caribbean region are expected in these municipal financing sessions.

Deliverables Output 2.1.4:

- One report on lessons learned per city.
- One global report highlighting common lessons learned from the 3 regions.
- 2-Day long workshops conducted for representatives from each region.
- Materials of the sessions in English and relevant languages.
- List of participants disaggregated by gender.
- Up to 3 online sessions on municipal financing
- Materials of the sessions in English and relevant languages.
- List of participants disaggregated by gender.

Component 3: Project monitoring and learning

Outcome 3.1 Regular project monitoring and documentation for learning and knowledge sharing

Output 3.1.1: A project monitoring plan is designed and executed

**249** The aim of this output is to develop a monitoring tool to apply throughout the project in order to conduct regular monitoring of the project?s successes and challenges. The results of this monitoring will help improve the financial toolkit and other communication materials, which will be actively utilized in the concerned regions for the target cities. The monitoring will be prepared according to UNIDO, CTCN, and GEF requirements defined for LDCF/SCCF core indicators.

**250** All monitoring and evaluation tools and documents, such as the monitoring plan, progress reports, final reports, and thematic evaluations (e.g. training needs assessment) will include gender dimensions, and report with respect to an established baseline for gender related targets.

251 These reporting will include at least, but not limited to the following exercises:

Activity 3.1.1.1 - Design and execute project?s monitoring plan

#### Report and monitor CTCN requirements:

**252** Activity i: A detailed implementation plan for all activities, deliverables, outputs, deadlines and responsible persons/organizations, including a gender study and an itemized budget for

implementing the Response Plan. The detailed implementation plan and budget must be based directly on this Response Plan.

- **253** Activity ii: Based on the work plan, a monitoring and evaluation plan with specific, measurable, achievable, relevant, and time-bound indicators should be developed to evaluate the timeliness and appropriateness of implementation. The indicators selected in the monitoring and evaluation plan should be aligned with the Closure and Data Collection Report template. This will enable the implementer to complete the CTCN Closure and Data Collection Report at the end of the technical assistance (please refer to Activity 1.4 and Section 14 of the Response Plan).
- **254** Activity iii: A two-page description of the expected impact of the CTCN technical assistance prepared at the start of the assistance, updated at the end of the technical assistance (a template will be provided).

**255** Activity iv: A CTCN Closure and Data Collection report completed at the end of the technical assistance (a template will be provided).

256 Report and monitor UNIDO Requirements:

- Provide justification of the deliverables with each invoice.

- Report and monitor GEF requirements:

- Provide the necessary information to fill in the ?GEF-7 Climate Change Adaptation Results Framework?

Deliverables Output 3.1.1:

- 3 Detailed implementation plans, one for each city.

- 3 Monitoring and Evaluation plan, one for each city

- 3 Impact assessments, one for each city

- 3 Closure data, one for each city

- 3 Gender Assessment, one for each city, indicating differentiated impact of the activities on women and men, progress of the gender mainstreaming action plan as well as recommendations to

further promote GEEW through climate change adaptation activities.

- All deliverables approved by the parties before invoicing respective amount

- GEF-7 Climate Change Adaptation Results Framework monitored on a continuous manner from the start to the end of the projects.

- Indicators defined in Annex A ? including the number of beneficiaries of the project disaggregated by gender.

Output 3.1.2: Lessons learned from the adoption of the toolkit are captured and used for iterative strengthening

Activity 3.1.2.1 - Develop knowledge materials and documentation

**257** At the end of the project, all the communication materials including the financial toolkit presentation booklet, the financial toolkit, a report on lessons learned and best practices will be developed in English as well as the local languages of each respective city. Potential translation into French and Spanish could be required. The objective will be that at least 3 target cities in at least 15 target countries from each region (SIDS will combine the Caribbean and the Pacific

regions) have received all the prepared communication materials. These cities could be identified during the regional workshops for example. These countries should be well aware of the project, of this initiative and should understand how to use the communication materials provided. This explanation could be done through online regional meetings of 1 or 2 hours.

**258** All knowledge management activities will be gender responsive. This includes integration of gender dimensions into publications, for instance presenting gender-disaggregated data, gender-energy nexus theory, gender sensitive language in publications, photos showing both women and men, and avoid presenting stereotypes, as well as assuring that women, men and the youth have access to and benefit from the knowledge created.

Activity 3.1.2.2 - Disseminate knowledge materials and documentation on best practices

**259** At the end of the project, all the communication materials including the financial toolkit presentation booklet, the financial toolkit, a report on lessons learned and best practices will be widely disseminated through NDE, and GEF Operational focal points. In particular, dissemination will take place through CTCN?s website, newsletters, and NDE and GEF Operational focal points network.

260 It will be made sure that knowledge materials and documentation is equally available to women.

Output 3.1.3: Knowledge materials and documentation on best practices developed and widely disseminated to beneficiary cities and through CTCN network

Activity 3.1.3.1 - Capture lessons learned from of the toolkit for iterative strengthening

**261** Under this output, feedback from the project beneficiaries will be collected along with lessons learned and suggestions for improvement. Indeed, participating countries and cities will have experienced the financial toolkit in detail and will have gained an in-depth understanding of the toolkit?s strengths and weaknesses. The objective of this output will be to utilize feedback and lessons learned to strengthen and finalize all the communication materials created under the project.

**262** Feedback will be collected from both women and men to ensure that gendered needs and opportunities are taken into consideration.

Deliverables output 3.1.3:

At least 3 target cities in at least 15 target countries from each region (SIDS will combine the Caribbean and the Pacific regions) have received all the prepared communication materials.
List of countries, focal points and communication materials exchanged, date of the exchange,

language of the materials exchanged and any other relevant information.

- Gender-responsive knowledge materials and documentation developed including the financial toolkit presentation booklet, the financial toolkit, a report on lessons learned and best practices.

- Demonstration that the knowledge materials and documentation have been widely disseminated to both women and men through the adequate channels.

- All communication materials, including the financial toolkit, further strengthened through addressing challenges identified through participating countries and cities using them during the course of the project.

Component 4 Project Evaluation

Outcome 4.1 Project Evaluation

Output 4.1.1: Mid-term and terminal independent project evaluations are conducted and follow up actions and recommendations are determined for long-term project sustainability

Activity 4.1.1.1 - Project evaluation report

**263** An independent evaluation entity will be invited to assess the quality of the project?s implementation, and prepare mid-term and final project evaluation reports. The same entity will also provide recommendations on how similar projects can be improved in the future.

Activity 4.1.1.2 - Determine the follow up actions and recommendations for future implementation

**264** A roadmap determining the follow up actions and recommendations for future implementation of the toolkit in the selected cities.

265 Deliverables output 4.1.1

- 3 Mid-term independent project evaluation reports

- 3 Final independent project evaluation reports
- 3 follow up actions plans and recommendations for future implementation

Alignment with GEF focal area and/or Impact Program strategies

**266** The proposed project aligns with the GEF Focal Area Climate Change Adaptation (CCA-1 and CCA-2), especially on initiatives related to reducing the impacts of climate change in cities of developing countries. The main objective is to increase resilience of cities by adopting appropriate climate change adaption solutions through improved capital expenditure planning and innovative public and private financing mechanisms. The project focuses on 3 pilot target cities in Africa, Asia and Latin America and the Caribbean and aims to produce global knowledge, which will be made widely available, including through South-South cooperation.

**267** The project has been developed under the Challenge Program for Adaptation Innovation, which seeks to identify, test and highlight innovative adaptation approaches with potential to be replicated and scaled up. It is aligned with two of the priority themes of the Challenge Fund, namely:

**268** c. ?strategic multi-stakeholder partnerships, alliances, and incubators as catalyzers of larger scale financing and market developers?,

**269** g. ?innovative business models and investment approaches, seed funding and venture capital approaches to improve access to finance for private sector?.

Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

**270** The support of the LDCF/SCCF will provide for faster and more transformative adaptation by helping decision makers appreciate and calculate the value of CCA and their respective cobenefits. The predictability and comparability of green infrastructure with grey-built infrastructure is almost non-existent and the multiple benefits that CCA measures bring and make them

economically and financially attractive are not being measured or assessed in a systemic manner. Ongoing practice shows that the integration of CCA and green infrastructure into adaptation planning and infrastructure planning is increasing, but progress is very slow. Without better information on the economic advantages of CCA, public and private counterparties will move forward to plan and deploy grey alternatives with heavy carbon and environmental footprints across their life cycle. This will lock global societies into a green-house-gas-heavy and natural resource and material-consuming future. Natural resource extraction will increase, biodiversity related challenges will increase, and natural ecosystems will become even more vulnerable to climate change.

The baseline scenario demonstrated that the target cities have not developed many CCA 271 projects through private or public investment, and when they have done so, it was predominantly through multilateral funds and international mechanisms. This is mainly due to the target cities and countries? low creditworthiness, lack of capacity of the national and municipal officers, and lack of involvement of the private sector. This project will assess and design specific climate change adaptation financial tools and mechanisms potentially suitable for the target cities, and train future users on the application of these tools to support pilot cities to gradually unlock access to these mechanisms. To achieve this objective, the support of the LDCF/SCCF is very important. It permits the building of the evidence base for the multiple benefits that CCA bring, beyond adaptation only. Concreting the assessments and valuations of CCA projects with diverse groups of stakeholders is necessary to uncover, measure and quantify the benefits. This will allow CCA projects to become more mainstreamed into adaptation and infrastructure planning. To add on to the above points, the co-financing support from the countries is mainly in-kind and the grant component is pending on budget availability. Thus, without the funds of the GEF LDCF/SCCF programme, the project would never be implemented, or not at such scale, involving 3 LDC/SIDS countries in 3 continents and with regional workshops to disseminate the knowledge acquired.

**272** The project and LDCF/SCCF support builds on an existing methodology and toolkit, which has been validated and tested in different regions, different context, and cities. These existing tools will be redesigned to focus on small and medium sized cities of LDCs and SIDS regions to ensure that these cities can also access climate finance and innovative mechanism to plan and create sustainable cities and limit the impact of climate change hazards in the mid- and long-term, decreasing as such, the human, health, material and economical disasters.

**273** The COVID19 pandemic, coupled with increasing extreme weather and climate change related disasters, is likely to accelerate the transition towards sustainable development and make the demand for CCA measures. Asset owners, investors, and insurers are also feeling the heat as they suffer the financial losses caused by extreme weather and they are looking for alternative options. The support of the GEF will provide a faster track record and help build trust in CCA projects as viable investment alternatives for grey-built infrastructure.

**274** Rolling out the customized toolkit in 3 small and medium cities of LDCs and SIDS of 3 different continent, Africa, Asia, and Latin America and Caribbean (Component 1) and increase decision makers capacity in understanding the support that the toolkit will provide in managing better the CC hazards and planning sustainable cities will allow a track record on CCA to be build, and lessons learned will be available for all stakeholders with an interest in planning, developing, and financing CCA projects. The results of this project will be disseminated online and will provide access to data necessary to create investment worthy CCA projects and the engagement with CCA project proponents, including financiers and investors and engage the private sectors of these regions will help to create a strong community of practice that is empowered to undertake systemic assessments on CCA projects and embed them in adaptation and infrastructure planning.

**275** It is worth mentioning that Tool 5 is dedicated to the identification and engagement of private sector financiers and therefore, the project aims to unlock private investments in the 3 countries. As a result, the private sector is expected to remain involve in these cities in future

infrastructure and CCA projects, tackling one of the main barriers to develop CCA projects and providing sustainability to the measures implemented by the present proposal.

**276** In addition, considering the project nature and its approach, it should not be disregarded the possibility that further private co-financing sources appear during the project implementation. If this is the case, the co-financing sources will be updated duly.

277 Currently, the proposal is co-financed by the three selected cities, as well as supported by the executing and implementing agencies. The selected cities in each country will provide in-kind and grant co-financing upon budget availability. UNIDO and the CTCN will provide in-kind and cash co-financing, while UN Habitat will be provide in-kind support. Please, refer to section ?C - Confirmed sources of Co-financing for the project by name and by type? of this proposal for further details. The goals of these entities are aligned with the goals of the LDCF/SCCF - supporting developing countries reduce vulnerability to climate change, implement development strategies that are resilient to extreme weather and at the same time, increase deployment and expertise of low carbon technologies. Last but not least the countries hosting the project will be financing this proposal through in-kind and grant support.

Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

278 The global environmental and adaptation benefits in line with the LDCF/SCCF are:

**279** All the project components and activities contribute to increasing national, regional and local capacities to address climate change adaptation in the long-term and climate variability in the short and medium terms in small and medium size cities of LDC and SIDS. Increased capacities of these cities to access climate adaptation finance will allow these cities to contribute to their respective country?s climate change adaptation targets.

**280** Sensitivity to climate change and adoption of climate change adaptation measures, especially those related to nature-based solutions (NBS) and ecosystem-based adaptation will reduce the pressure on the environment and improve efficiency in use of natural resources.

**281** Improved government capacity at national and municipal levels to deal with climate change by designing, implementing, evaluating, and replicating innovative financing systems for climate change adaptation in LDC and SIDS.

**282** Improved city?s creditworthiness and rating system, which will in turn strengthen the CCA capacities of the city as well as improve its fiscal management.

**283** In the case of this proposal, the following assumptions have been considered:

**CORE INDICATORS** as defined in the annex (excel sheet).

**284 INDICATOR 1:** Number of direct beneficiaries disaggregated by women and men

285 The project is implemented in 3 cities of Latin America, Asia and Africa. The cities are:

- Kaysone Phomvihane in Lao PDR, representing LDC and the Asian region with a population of 187,422 inhabitants.

- Choke in Mozambique, representing LDC and the African region with a population of 125,760 inhabitants.

- English Harbour Town, in Antigua and Barbuda, representing SIDS from both the Caribbean and the Pacific regions, has a population of 759 inhabitants.

**286** Thus, the total direct beneficiaries from these 3 cities will be 313,941 inhabitants. As these cities are of great importance due to economic reason, it has been also estimated the impact of the project in the surrounding areas of the selected cities.

**287** Savannakhet comprises 15 districts, of which Kaysone Phomythane is the provincial capital, and the second largest city in Laos after Ventiane Capital. As many other mayor cities, it has been considered that the city of Kaysone Phomvihane has a strong influence in the province and provides jobs and other services to the people living in the surrounding areas (medical services, administrative matters, etc.). Improvements in the city infrastructure and its adaptation capabilities to climate change will have a direct impact on the people living in the city, but also on the people visiting the city on a daily basis. For example, if improved adaptation measures against strong rainfall are in placed, the city might limit the impact of flooding. Therefore, the economic losses and the social impact related to such climate events will be lowered. The population of Kaysone Phomvihade is 187,760 inhabitants and for the Savannakhet province amounts to 969,697 inhabitants. Kaysone Phomvihane is the center of the secondary and tertiary industries of Savannakhet Province. The target annual growth for Savannakhet province for the industry sector is 18-19% while service sector is expected to growth annually by 13-14%<sup>[4]</sup>. The average annual growth expected between these 2 sectors is thus 15% with direct repercussions on the population of the province that will benefit from the project. Finally, Kaysone Phomvihane, Phine, and Dansavanh will be soon connected by the East West Economic Corridor Towns Development Project that will become an economic corridor as part of the overall economic development of the Greater Mekong Sub-region<sup>[5]</sup>. While it is difficult to estimate the real impact of these infrastructural changes on the population, it seems conservative to believe that an increase resilience to climate change and a better connection of the provincial capital Kaysone will have repercussions on at least 15% of the current population, amounting approximately 150,000 inhabitants.

**288** The city of Chokwe is part of the Gaza province and it is considered the economical capital of this province. The city is well connected to other districts within the province and also outside the province; the Limpopo Railway connects the city with Mozambique capital city Maputo. Being an important economic hub for the province, the city provides jobs and medical services to its population. The province has a population of 1,422,460 inhabitants. Chokwe town is surrounded by fields serviced with the largest irrigation scheme in Mozambique. Chokwe?s central market gathers high volumes of supplies both from local yields ? mostly rice, vegetables and beans ? and from neighboring districts. Within these neighboring districts, more than 31,000 farms<sup>[6]</sup> are registered. These farms have been considered as the population of the province that will also benefit directly from the project. Similar to the case of Lao PDR, the improvements in the city infrastructure and its adaptation capacity to climate change will lower the economic losses and social impact related to climate events. Considering that in average, farms have 4 members, the population that will beneficiate from the projects is around 124,000 inhabitants.

**289** Finally, English Town Harbour is a natural harbour and settlement on the island of Antigua, in the extreme south of the island. English Harbour is a center of boating, especially yachting. **Tourism is the mainstay of the economy of Antigua, and** the yachting industry contributes 25% to 30% to Antigua & Barbuda's GDP<sup>[7]</sup>. Antigua has a population of 80,161 inhabitants. Being such a small island, it is expected that the results of the project could easily be replicated in other territories of the island. Data on the employment of the yachting industry is not available for Antigua, but considering that 50% of the active population works in the tourism sector, and taking into account that the project is expected to have repercussions on the 5 other harbors of the island (please refer to indicator 2) it has been estimated conservative to consider that 20 % of the population of the island will be impacted by the project. Therefore, around 12,000 inhabitants will benefit from the project results.

**290** As a result of these assumptions, it is expected that a total of 600,000 inhabitants that could benefit directly from this proposal.

**291** Considering the sex ratios among the populations between 15 and 64 years of each country, and that Mozambique and Lao PDR are listed among the Least Developed Countries (LDC), the beneficiaries can be split as follows:

		<b>SCCF</b>		LDCF	
	Sex ratio	Male	Female	Male	Female
Lao PDR	<mark>0.5008</mark>	<mark>0</mark>	<mark>0</mark>	<mark>169,120</mark>	<mark>168,580</mark>
Mozambique	<mark>0.4872</mark>	<mark>0</mark>	<mark>0</mark>	125,000	124,600
Antigua and Barbuda	0.4733	<mark>6,360</mark>	<mark>6,340</mark>	<mark>0</mark>	<mark>0</mark>
Totals		<mark>6,360</mark>	<mark>6,340</mark>	<mark>294,120</mark>	<mark>293,180</mark>
			<mark>12,700</mark>		<mark>587,300</mark>

**292 INDICATOR 2:** Area of land managed for climate resilience (ha)

**293** The project is implemented in 3 cities of Latin America, Asia and Africa. The information regarding the size of the cities in km<sup>2</sup> or in hectares is not easily available and COVID19 restrictions have made it difficult to undertake any international travels to access the exact data. However, the information on the size of the province in which each city is located is publicly available. The size of the respective province are:

- Savannakhet Province, where Kaysone Phomvihane is located has a superficies of 21,774 km2 which corresponds to 2,177,400 ha.

- Chokwe province has a superficies of 2,466 km2<sup>[8]</sup>, which corresponds to 246,600 ha. 2,466 km2<sup>[9]</sup>, which corresponds to 246,600 ha.

- The island of Antigua has a superficies of 281 km2, which corresponds to 28,100 ha and Saint Paul?s parish, where English Harbour Town is located has a superficies of 46 km2<sup>[10]</sup>, thus 4,600 ha.

**294** For the case of Kaysone Phomvihane and considering that is the provincial capital of Savannakhet, and the second largest city in Laos after Ventiane Capital, it has been assumed that 1% of the provincial area will be influenced by the project, and thus 21,774 ha.

**295** The exact superficies of Chokwe is known and will thus be used for this estimation. It is expected that the project, if implemented, will have direct repercussions on 5% of the district, thus 12,330 ha.

**296** The perimeter of Saint Paul?s parish offers two sheltered deep-water harbors; English Harbour itself and Falmouth Harbour. It is expected that, if implemented, the project will have an impact on the Parish globally and also will influence other similar areas in the island. English Harbour is also located closed to the Nelson?s Dockyard, protected by UNESCO and with a superficies of 430 ha. Finally, there are 5 other harbors in Antigua: 3 are in St John?s Harbour (the biggest with an area of 1,000 ha), Jolly Harbour and Parham Harbour which exact superficies are unknown. For the purpose of this project, it has been estimated that for each remaining 4 harbors, the superficies of impact will be of 500 ha.

297 In total, it is expected that the project, if implemented will have an impact on 42,134 ha.

**298** Considering that Mozambique and Lao PDR are listed among the Least Developed Countries (LDC), the impacted area can be split as follows:

	SCCF	<b>LDCF</b>
Lao	0	<mark>21,774</mark>
Mozambique	0	12,330
Antigua and Barbuda	8,030	<mark>0</mark>
Totals	<mark>8,030</mark>	<mark>34,104</mark>

299 INDICATOR 3: Total no. of policies/plans that will mainstream climate resilience

**300** 3 policies/plans have been added in this indicator in comparison with the PIF stage, as 3 plans will be delivered, one for each selected city.

**301** Therefore, 1 policy/plan will be delivered for SCCF and 2 policies/plans for LDCF.

## 302 INDICATOR 4: Total no. of people trained

**303** With regards to the total number of persons trained, the following assumptions have been taken:

**304** Activity 1.1.2.2: Short training workshops including online trainings. The participation to these trainings is not defined and could vary from 5 to 25 persons approximately. It is estimated that 3 of these short-training workshops will be requested for Lao PDR and Mozambique and 5 for Antigua and Barbuda (in total 11 workshops). To be conservative, the participation of 3 men and 2 women has been considered for each workshop (min. people trained: 55)

**305** Activity 1.1.2.4: up to 65 municipal planners trained in the municipal financing toolkit and climate finance (20 for Lao PDR and Mozambique, 25 for Antigua and Barbuda). The training will seek women's participation to be at least 40%. To be conservative, 15 participants have been included in the calculation of the indicator for Lao PDR and Mozambique, corresponding to 9 men and 6 women; and 20 for Antigua and Barbuda corresponding to 12 men and 8 women (min. people trained: 55).

**306** Activity 1.1.4.1 plans to engage with domestic and regional stakeholders including national focal points to global funds through the organization of webinars, for 25-30 participants for Asian and African regions and 30-40 participants for the Caribbean. In the calculation of the indicator, the lower range has been maintained to be conservative, with the male participation expected to be of 80% (min. people trained: 80).

**307** Activity 1.1.4.2 plans to engage with global programmes to support private sector engagement through a private sector workshop where 40-50 participants for Lao PDR and Mozambique and 50-60 participants for Antigua and Barbuda are expected, and in which women?s participation is expected to be at least 40%. For the calculation of the indicator, the lower range has been considered to be conservative (min. people trained: 130).

**308** Activity 2.1.3.1 Present selected CCA projects to identify private sector financiers (Tool 5). The seminars will have a duration of 1 day and will be organized in person with a restrictive attendance of 6-12 persons for Lao PDR and Mozambique and 8-15 for Antigua and Barbuda. To be conservative the lower range has been considered in the calculation of the indicator, and an average women?s participation of 65% (min. people trained: 20).

**309** Activity 2.1.4.2 plans to conduct 3 regional online workshops that will convey 5 to 10 representatives from at least 15 countries (both from the national level and from target cities in

these countries) from the Asian and African regions and 25 for the Caribbean and the Pacific. It has been considered that 7 of these representatives will be men, while 3 will be women (min. people trained: 550).

**310** Finally, Activity 2.1.4.3 plans to organize 3 municipal financing sessions with around 20 attendees for the Asian and African regions and 25 for the Caribbean region. It is expected that 25 attendees will be women (min. people trained: 195).

**311 Total no. of people trained:** It has been considered that 1080 persons will be trained, 747 will be men, and 333 should be female.

312 The split of the trainees between SCCF and LDCF has been made considering that:

Mozambique and Lao PDR are listed among the Least Develop Countries (LDC)
 Regional trainees from the Caribbean region fall into the SCCF indicator

•	SC	SCCF		LDCF	
	Male	Female	Male	<b>Female</b>	
Lao PDR	0	0	<mark>46</mark>	<mark>30</mark>	
Mozambique	0	0	<mark>46</mark>	<mark>30</mark>	
Antigua and Barbuda	<mark>62</mark>	<mark>41</mark>	<mark>0</mark>	<mark>0</mark>	
Regional	253	102	<mark>340</mark>	<mark>130</mark>	
Totals	315	<mark>143</mark>	<mark>432</mark>	<mark>190</mark>	
		<mark>458</mark>		<mark>622</mark>	

# Innovativeness, sustainability and potential for scaling up Innovation

**313** The concept of the project is to recognize that the target cities? access to CCA finance at present essentially comes from DFI sources and that a large number of barriers prevent the target cities from tapping into innovative private finance opportunities. These barriers can be addressed only incrementally. The project hence aims to guide the target cities through a carefully designed incremental process that will eventually unlock access to some of these innovative opportunities. Each of the three stages of this process will help the target cities increase the inflow of CCA finance and build a required foundation for the Stage 3 of the process, which is innovative and private sector CCA finance. By going through the process, the city will gradually increase the pool of finance it can confidently tap into.

**314** Each of the 3 stages is correlated with a set of implementing tools, which are scheduled to be put in place as per the workplan defined for the project and which hence indicates by when each stage is expected to be implemented. Stage 1 incorporates implementing tools 1 to 3; Stage 2 incorporates the implementing tool 4; and, Stage 3 incorporates implementing tools 5 and 6.

**315** Although it cannot be guarantee that each of the 3 pilot cities will successfully move from one stage to another, the stages have been elaborated in such a way that chances for the selected cities are maximized to reach the next stage. However, actual success depends on numerous quantitative factors, for example an active support of the national government, receptiveness of the municipal government to different stages of the training and their ability to apply the acquired

knowledge to their city's specific context, the ability to generate supportive partnerships, etc. In other words, the proposed project can only lay down the best and most realistic conditions possible for the cities to move to stages 2 and 3, but it should be taken into account that the projects is targeting low-income small cities with little internal capacity.

Stage 1: Concessional instruments: grants and concessional loans obtained through national support

**316** Concessional instruments such as grants and low interest rate loans are typically provided to provide technical assistance and capacity building, develop pilot projects and give access to finance at longer and more affordable terms to a city, thereby lowering investment costs and encouraging private investment in climate-resilient projects.

**317** Stage 1 is accessible to nearly all the target cities, sometimes directly and most often, through the national support and facilitation. Concessional disbursements come either from national CCA funding mechanisms (which is rare in the target countries) or from international development CCA finance mechanisms. The latter usually take a shape of a technical assistance from UN agencies, grants under UNFCCC adaptation funds ? Adaptation Fund, Green Climate Fund (for example, Readiness support grants) GEF (for example dedicated funds such as the Least Developed Countries Fund (LDCF) or the Special Climate Change Fund (SCCF).

**318** For climate change adaptation activities, **grants** are normally provided for non-revenue generating activities in recipient countries/cities, such as knowledge management programs, capacity building programs, ongoing activities that do not generate financial returns, and technical and costing plans, among other projects. Grants are used to help capitalize the financial mechanisms related to climate change adaptation. Now as public actors are seeking to build strong enabling environments and undertake demonstration projects for sustainable investment across a range of sectors, grants represent a larger share of increase in climate finance. For instance, according to a CPI report, annual grant finance averaged USD 29 billion (5% of total flows) in 2017/2018 compared to USD 18 billion (4%) in 2015/2016 and USD 13 billion (3%) in 2013/2014 (CPI, 2019).

**319** DFI enhance investments through **concessional loans**, which are characterized by longer repayment terms and lower interest rates, among other terms preferable to market rate loans and equity. Multilateral development banks such as the World Bank (WB), the African Development Bank (AfDB), the Asian Development Bank (ADB), and bilateral development banks such as the German KFW (German Development Bank), AFD (French Development Agency), Japan International Cooperation Agency (JICA) are major investors to the LDCs and SIDS.

**320** For example, the Inter-American Development Bank (IDB) utilized concessional climate change loans in the form of budgetary support provided to Mexico, Peru, Colombia, Guatemala, Trinidad and Tobago and El Salvador, among others, totaling USD 2 billion in the period of 2008-2013 (IDB, 2013).

**321** Concessional loans or market-rate debt was the financial instrument used to channel the most climate finance in 2017 and 2018, averaging USD 316 billion annually.

**322** While these instruments are not only accessible to, but also specifically designed for the target countries, the target cities still do not access as much of these funds as they could. In order to tap into these instruments effectively, the target cities however need to acquire the following knowledge and skills:

323 Ability to assess climate risks and identify priority CCA interventions and projects,

324 Awareness and understanding of these instruments, as well as of modalities to access them,

**325** Knowledge and capacity to prepare **project proposals** through the national system and with the national support,

**326** Effective coordination with the national government and its key entities in charge of channeling such funds into the country for specific line activities such as CCA in cities,

**327** Familiarity with **project bundling** at the regional or the national level to minimize the transaction cost for the funder.

**328** In Stage 1, the target cities will hence need to gain this knowledge and skills.

**329** A successfully passed Stage 1 is characterized by the target cities capable of attracting larger amounts of concessional development CCA finance, a consequently enlarged CCA finance pool, CCA projects under implementation and, eventually, a more climate resilient city ready to absorb non concessional financial instruments.

Stage 2: Intermediate innovative CCA financial mechanisms: blended finance and de-risking modalities

**330** Stage 2 taps into activating blended finance and de-risking some innovative CCA finance opportunities, such as national banks? loans.

**331** Blended finance is commonly defined as a strategic use of development finance to mobilize commercial capital and investments. Blended finance can be enacted in two manners:

**332** Funding obtained from Stage 1 contributes to improving the city?s climate resilience as well as its climate adaptation and response capacity. This, in turn, **makes the municipal economy less risky and more attractive to investors**.

**333** DFI funding is mixed with private loans or investments to mitigate the risks for the latter and thus increase their willingness to proceed.

**334 Blended finance** adds de-risking grant or concessional funds to a blend of commercial debt instruments to provide a package of finance with less risk for the commercial funder and more attractive terms for the borrowing entity to meet the project finance needs. More specifically, CPI defines blended finance as ?the use of public/philanthropic funds to mobilize multiples of additional private capital?. The focus is on the use of ?concessional? capital - that is, capital that is extended at below market terms - both directly within the financing structure of an investment (or, the ?capital stack?) and indirectly by using concessional capital to catalyze investment (e.g., through the use of a guarantee or a grant for project preparation).

**335** Blended finance instruments may include:

**336 Direct Investment**: Debt or equity instruments with direct contribution into a blended finance vehicle (e.g., project or fund). Example: 1) Junior/ subordinated capital (e.g., concessional equity & debt) and 2) Commercial capital (catalytic when used for demonstration effect, also known as ?anchor capital?)

**337 Guarantees**: Generally, a 3-party agreement where a third party provides an extra layer of protection to the commercial lender or to the beneficiary of a service, such as a debt service, in case the entity who would normally repay or provide a service fails to do so. Example: 1) Loan guarantees 2) Performance guarantees

**338** Hedging instruments, swaps and derivatives: Contractual instruments to help manage different types of risks faced by an investor or borrower. Example: 1) Local currency hedges/swaps 2) Securitization

**339 Insurance**: A 2 party contract between the insurer and the policy holder. The insurance provider promises to provide financial compensation in the instance of an event that results in a financial loss. At Stage 2, insurance fees could be covered by a DFI partner. Example: 1) Political risk insurance 2) Performance insurance

**340 Commercially oriented preparation support**: Grant or concessional funding provided specifically to address early-stage development risks. Example: Project preparation funding or technical assistance (CPI, 2018).

**341 De-risking support** is likely to increase private sector investment into climate change adaptation projects in the target countries and cities. This mechanism will help also them assess the barriers and risks the private sector (MNCs, MSMEs, capital providers/investors and market facilitators) face when investing in CCA and/or in infrastructure projects calling for a climate resilience component, identify and assess adaptation strategies to de-risk and remove barriers to investment, and undertake a cost-benefit analysis to select a mix of instruments that will maximize economic and social benefits of the project.

**342** The instruments above are not yet a business-as-usual practice in CCA finance, however successful precedents have taken place in a number of developing countries in climate mitigation finance, in particular in the clean energy sector. For example, **KyrSEFF**+ is one such an initiative, which can serve as an example. Launched in Kyrgyzstan in 2016, this USD 35 million financing programme, developed by the European Bank for Reconstruction and Development (EBRD), provides energy and water efficiency related loans through local banks and blends these loans with grant incentives of up to 35% as well as technical assistance, provided by the EU-IFCA fund. For example, commercial and private investors can seek support and advice from the KyrSEFF+ team of engineers to identify the most suitable technology solution for their energy and water resource efficiency investment. The program has windows for both companies and individuals.

**343** Finally, **National Development Banks (NDB)** are well positioned to provide for CCA finance at the municipal level given their national development mandates. Worldwide, NDB hold more than USD 5 trillion in assets. NDB could therefore be explored as key partners in this project, receive training and get associated to different steps of implementing the municipal financial toolkit. As an example, the Brazilian Development Bank (BNDES) identified 4 priority areas for infrastructure investment: electricity generation, sanitation, urban mobility, and railroads. The bank provides specific financing lines for municipalities to fund urban infrastructure (e.g., sanitation, drainage, mobility, and public lighting).

**344** A successfully passed Stage 2 leaves the target countries with an awareness of blended finance opportunities for CCA and, ideally, steps undertaken to negotiate this type of finance with the support of DFI finance and technical assistance. Target cities have built experience on identifying and applying for dedicated credit lines, insurance mechanisms and other blended finance opportunities. This experience becomes instrumental to explore Stage 3.

Stage 3: Full-fledged private sector related innovative CCA financial mechanisms

**345** The financial instruments detailed under each of the 3 stages proposed for the present project may be considered either as innovative or as regular depending on the targeted entity's maturity to attract finance under this instrument. For example, while a megacity of a middle-income country may easily tap into green bonds, the same instrument will be considered as highly innovative for a

smaller city of a LDC or a SIDS. The latter can only possibly reach the required maturely stage by the end of the proposed project.

**346** The innovation of this project also lies in the approach itself, in which targeted cities undergo a thoroughly designed process which aims at making them ready to access financial instruments inaccessible for them as of now.

**347** Indeed, a country needs to acquire a certain level of infrastructural and economic development and to demonstrate a safe investment environment in a number of respects, including by creating a climate resilient investment environment, before it becomes attractive to private investors. Grants and concessional loans can hence help bringing the country and its cities to being attractive for blended finance instruments. The latter are themselves a tool to prepare the country and its cities for full fledged private investments. Each stage therefore unlocks the next stage and supports the overall country's and city's growth and climate resilience. In this approach, climate resilience contributes to a steady economic and social development.

**348** At this sense, Stage 3 consists in bringing the target city to a capacity and a municipal fiscal preparedness that allow it to approach private financiers with a fair chance of success. While the closing of Stage 3 may not be reached within the project time span, solid foundations can be set. This is why Stage 3 focuses on dispensing preparatory activities, some of which can be conducted in parallel with the activities undertaken in Stages 1 and 2.

**349** During this stage, the municipality works on establishing an enabling institutional investment grade by increasing its trustworthiness and creditworthiness. To achieve this, it works on enlarging the municipal revenue base and capacity (e.g. it improves local tax collection system, utilizes land value capture), it improves its capital expenditure planning, demonstrates sustained commitment to improving the city?s infrastructure and increasing its climate resilience, mainstreams CCA into regular infrastructure projects, aims to a fiscal margin and operating margin surplus (revenues are higher than expenditure), coordinates with the national government on a potential access to sub-sovereign transactions and conducts a rating procedure, or partners with the national government to attract innovative financial mechanisms through the country?s own borrowing capacity and credit rating, and identifies projects which can generate a return on investment for the municipality directly (direct pay back from the project) or indirectly (quantified anticipated surplus of tax collection, quantified avoided payment for damages and repair, quantified input to an increased economic attractiveness, etc.).

350 The following innovative financial mechanisms can be targeted at this Stage, among others:

CCA Bonds

**351** The global green bond market **grew by over 50 % from 2018 to 2019 to almost US\$ 260 billion**, which is over 8 times the amount of currently available public CCA finance. This instrument could hence greatly increase a city? CCA finance pool provided that they possess a solid credit rating or that its country possesses one and is willing to issue a bond on behalf of the city.

**352** In general, a bond is a debt instrument through which the issuer of the bond repays the bond holder the principle at a specified end date as well as interest payments throughout the term of the bond. Most bonds are fixed-income, meaning that they pay the interest back to the investor at set intervals, but interest payments can be variable. To maintain low levels of risk, investors wish to have confidence that the debt will be repaid from the issuers or the project?s revenue streams. As financial instruments, most green bonds are structured in the same way as typical investment grade, or low risk, bonds.

**353** The main difference between a green bond and a regular bond is that the issuer will include a ?use of proceeds? clause that states that the financing will be used for green investments. This means that the issuer commits to using the funds raised by a green bond to finance or refinance assets or projects that have been determined to be green, rather than treat the funds as general working capital. A similar approach can be taken to issue a CCA bond, more specifically targeting CCA.

#### Insurance schemes

**354** For green investments, public investors can use risk management instruments, such as guarantees and insurance, as tools to address the most prevalent market risks associated with the project.

**355** Insurance can be a key tool in reducing vulnerability and promoting resilience. It is most useful for the developing countries, which are most vulnerable to climate disasters. High insurance coverage helps recover faster. Increasingly, governments are recognizing the role and benefits of insurance in transferring risk from disasters. Climate change risks and protection of infrastructure from climate disasters is getting better understood by insurance schemes.

**356** The cost of an insurance against a set of climate risks would heavily depend on the assessed level of these risks as well as on the assessed municipality?s capacity to mitigate these risks up front. This means that in highly vulnerable target cities the insurance instrument would be tapped into through a development finance support at an earlier stage and through a commercial arrangement only at Stage 3 of the process when the city has already implemented a number of climate resilience activities and improved on its fiscal health to the extent of reaching the capacity to pay the insurance fees.

**357** Using insurance is a step towards risk management, and it strengthens socio-economic resilience under a changing climate. Furthermore, insurance and other disaster risk financing mechanisms are only part of the solution where they need to be integrated into other resilience and adaptation measures as part of a comprehensive climate adaptation strategy.

PPP (Public Private Partnership)

**358** A Public Private Partnership (PPP) is a very promising instrument in which the public sector and private sector jointly provide a public service, in which the private party bears a significant portion of the cost, risk and management responsibility. The public sector however also takes on a number of responsibilities to facilitate the implementation of the project. The remuneration is based on the performance. In climate related structures, this form of financing is increasingly being explored to fund and support the small and medium size cities to benefit from such practices.

**359** For PPP to take off successfully, the target municipality needs to have reached a level of maturity in which it shows itself as sufficiently trustworthy in fulfilling its obligations under a PPP contract, it has the capacity to sign such a contract, to assess public benefits to derive from a PPP project, and to monitor the private partner?s performance.

#### Private sector borrowing CCA funds

**360** In LDC and SIDS, private companies? investment grade is often below the national investment grade, a fortiori for companies located in small and medium size cities. It is hence unlikely that such companies will be able to tap into market CCA financial instruments until the city itself has improved its creditworthiness.

Crowd source funding

**361** Crowd source funding is a relatively recent phenomenon whereby a large number of individuals pool their financial contributions to support efforts, projects or campaigns initiated by an entity, typically via an internet-based platform. This instrument may prove very successful for targeted CCA interventions with direct benefits to the citizens. As the PPP instrument, it requires a high level of trust in the municipality to function. It is hence a Stage 3 instrument, where Stages 1 and 2 have helped the target municipality build the required level of trust.

**362** In a successfully performed Stage 3, the target municipality reaches a level in which it has increased its trustworthiness and creditworthiness through a number of actions undertaken to increase the city?s climate resilience and in which it now actively explores innovative financing instruments to pursue further climate resilience action.

Sustainability

**363** The project aims to significantly improve the pilot cities' economic attractiveness through reducing its infrastructure related climate risks and allowing cities to access new financing sources. The knowledge and experience gained by the cities, such as climate sensitive capital expenditure planning, are expected to generate high and sustained interest of the cities because these will allow them to grow socio-economically along with strengthening their climate resilience. While there are uncertainties related to the progress that each city will be able to make, the project aims to achieve a buy-in of the cities at the end of the project duration, which is the best guarantee of the beneficiaries pursuing the proposed approach further.

**364** The municipal financing toolkit developed in Component 1 will allow cities to produce and update their climate sensitive capital expenditure plans on a yearly basis. By adopting a systematic approach, municipal officials of the target cities will be able to prioritize their infrastructure investment needs, identify key investment projects and match them with financiers accessible at each specific stage of the project.

**365** Moreover, Tool 5 aims to unlock private investments and foster the involvement of the private sector in the development and implementation of future infrastructure and CCA projects in the 3 cities, leading to financial sustainability.

**366** Sustainability analysis will focus on environmental, social and financial aspects of urban resilience plans based on adaptation technologies.

**367** *Financial sustainability* - All the components and outcomes aimed a through the project will become an integral part of the 3 countries? regular working frameworks. It is expected that allocated budget will be provided to the 3 pilot countries for carrying out the related activities. The present lack in the innovative climate change adaptation financing and gap in the new approaches to climate change adaptation processes will be fulfilled through these funds and thus will support the municipal governments in implementing CCA actions.

**368** *Institutional sustainability*? The tolls and capacity building activities planned under the project will create an enabling environment in the target cities and countries, which will remain in place and continue functioning beyond the project?s duration.

**369** *Policy level and social sustainability* ? The municipal financing toolkit will become an integral part of the targeted national and municipal governments? regular activities. Monitoring and evaluation tools will also be integrated as part of the activities in the 3 pilot cities.

**370** *Environmental sustainability* - The project does not have any initiatives harming the environment. On the contrary, it will encourage climate change adaptation and technologies related to it. No such adaptation technologies would be proposed which would directly or indirectly harms the environment in any way.

## Potential for scaling up

**371** The tools and methods to be developed under the project will be made available to all LDC and SIDS countries with which the implementing and executing partners interact. The CTCN network and data management system, regarded as the global largest repository for climate change technology data, will incorporate the outcomes of the project, which will greatly contribute to a global dissemination. In addition to making the toolkit publicly available on the CTCN website, through its annual regional forums, its network of NDEs, GEF Operational focal points, and its network of over 500 organizations across the world, the CTCN will promote this approach at national or sub-national levels.

372 In particular, the CTCN will carry out the following scaling up activities:

Holding a webinar on CCA finance for the target cities (expected reach out: 500 participants). Featuring the project in the CTCN newsletter.

Presenting lessons learned and good practices at the margins of UNFCCC meetings (expected reach out: 200 people).

Presenting lessons learned and good practices during the private sector match-making initiatives organized in the regions.

**373** In addition to the efforts of the CTCN, the UNEP FI, collaborating center of UNEP - the host of the CTCN, will also engage with its large network of commercial banks to disseminate the tools and methods developed under the project.

**374** Finally, the implementing agency (UNIDO) as well as the executing agency (UN Habitat and UNEP/CTCN), will liaise with their partners and collaborative centers as well as with the relevant existing platforms involved in leveraging financing for cities, such as GPSC (Global Platform for Sustainable Cities) for example, to communicate the results of the project and increase the potential of scaling up the experience to other LDC/SIDS and medium to small cities globally.

<sup>&</sup>lt;sup>[1]</sup> https://storymaps.arcgis.com/stories/3aa9de98878b4c8cb26b635bcb6859cf

<sup>&</sup>lt;sup>[2]</sup> ADB. 2015. Building Resilience in Kaysone Pomvihane, Lao PDR, Volume 7 of the Resource Kit for Building

Resilience and Sustainability in Mekong Towns, Prepared by ICEM ? International Centre for Environmental

Management for the Asian Development Bank and Nordic Development Fund. Manila. [3] https://www.thegef.org/sites/default/files/council-meeting-

documents/EN\_GEF.C.52.Inf\_.06\_Guidelines\_on\_the\_Project\_and\_Program\_Cycle\_Policy.pdf <sup>[4]</sup> https://openjicareport.jica.go.jp/pdf/11981081 02.pdf

<sup>&</sup>lt;sup>[5]</sup> https://www.adb.org/sites/default/files/project-documents/43319/43319-022-iee-en\_0.pdf

<sup>&</sup>lt;sup>[6]</sup> Ckokwe district and surrounding districts\_Wikipedia\_ chapter on economy and agricultura.

<sup>[7]</sup> https://www.antiguanice.com/v2/client.php?id=1136

[9] https://en.wikipedia.org/wiki/Ch%C3%B3kw%C3%A8\_District
[10] https://es.wikipedia.org/wiki/Parroquia\_de\_Saint\_Paul\_(Antigua\_y\_Barbuda)
1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

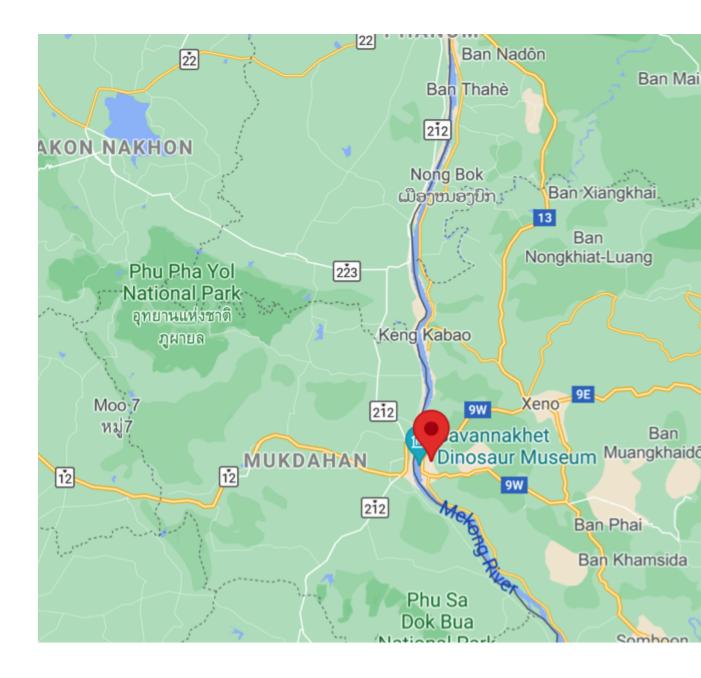
? English Harbour Town in Antigua and Barbuda Coordinates: 17?00?N 61?46?W

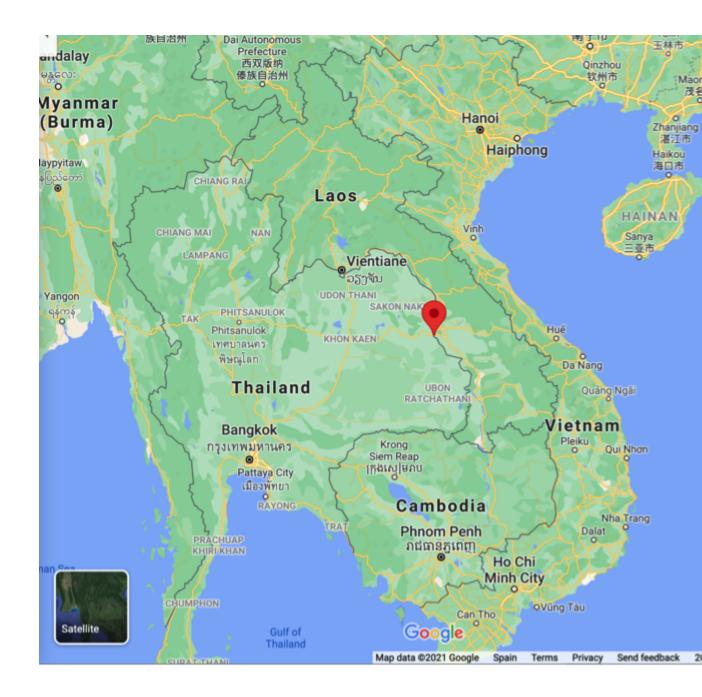




? Savannakhet in Lao PDR

Coordinates: 16.54?N 105.78?E

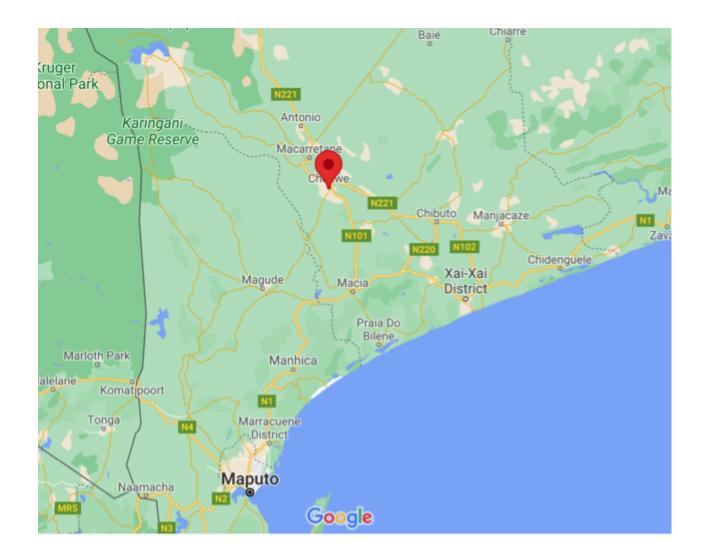




? Chokwe in Mozambique

Coordinates: 4?31?31?S 33?0?31?E





1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

N/A

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations No

**Indigenous Peoples and Local Communities** 

Private Sector Entities No

#### If none of the above, please explain why: Yes

An Stakeholder Engagement Plan has been developed during the proposal preparation and it is presented in Annex H.

The Stakeholder Engagement Plan (SEP) was designed to enable effective engagement of various stakeholders and to maintain dialogue with them throughout the lifecycle of the ?Piloting Innovative Financing for Climate Adaptation Technologies in Medium-sized Cities? project, including information sharing and consultation, participation, negotiation, and partnerships. The SEP also seeks to ensure that the views of women and other underrepresented stakeholder groups (e.g. youth) are captured. To achieve the above-mentioned objectives, the SEP also sets resources and responsibilities, as well as monitoring and reporting procedures. In summary, the SEP:

- •Identifies stakeholders directly or indirectly involved in the project, and the nature and scope of their interests.
- •Outlines how and when stakeholders should be consulted.
- •Guides how relevant information should be disseminated.
- •Captures responsibilities and resource needs to ensure that the stakeholder engagement is meaningful.
- •Sets monitoring and reporting procedures.

During the proposal preparation, the engagement was mainly focused on the countries and the cities in order to obtain the cities involvement and endorsement of the project.

This engagement with the respective cities and countries has been done in different ways, but always through the most effective channel. For Antigua and Barbuda, the communications were established through the Natinal Designated Entity and focal point of the CTCN that immediately connected the implementing and executing entities with the representatives in charge of the project for Antigua and Barbuda and English Harbour. For Lao, the contact with the city was established through UN Habitat and its local office in the country, in cooperation with the UNIDO local officer. For Mozambique, different channels were used, including UN Habitat, UNIDO local representative and CTCN focal points.

Given the changes in the administrations, an email with the first draft of proposal submitted to the GEF on May 22<sup>nd</sup>, 2021 was shared again with each of the cities. Following this introductory email, a call was organized with each city representative to review the list of stakeholders, as well as to clarify the role of the private sector, and other questions raised by the GEF following the first submission. Following this call, the list of stakeholders was circualted along with a questionnaire that would help clarify the main comments. This questionnaire was shared with the main focal points for each country and returned to the CTCN once filled in. The CTCN analyzed the clarifications provided and included relevant information in the proposal to adress the comments raised by the GEF.

Many emails were also exchanged with the cities and countries to collect the of endorsement and co-financing letters (available in Annex K). These communications were done respetively by the implementing and executing agencies, in a common effort.

A list of the stakeholders identified for each city during the project preparetion are presented Tables 2, 3 and 4 of this proposal and also in Annex H. These lists have been developed in collaboration with the 3 cities selected for the project.

At the start of the project and as part of Activity 1.1.2.3, these lists will be reviewed and the cities will support the identification of focal points to be contacted for each entity by providing names, position and contact details of these persons that will be in charge of following up the project implementation.

In addition, further stakeholders will be mapped for each country, and each city, and will be classified as:

- •Governmental Bodies (National level)
- •Governmental Bodies (Municipal level)
- •Civil Society and NGOs
- •Private sector
- •Gender and Youth stakeholders

These stakeholders will be divided using ?Power/Interest Grid? to differentiate between stakeholders who will be partners on the project or consultants, versus stakeholders who have an interest in the progress of the project. The categories/positions utilized for stakeholders are typically as follows:

- 1. Manage Closely
- 2. Keep Satisfied
- 3. Keep Informed

During project implementation, the stakeholders will be placed as the decision makers to design specific climate change adaptation financial tools and mechanisms potentially suitable for their cities and create capacity of future users on the application of these tools to support pilot cities to gradually unlock access to these mechanisms.

A Steering Committee will be created for each city composed of representatives of public offices directly involved in the project. Therefore, stakeholders will be engaged in all the project activities and will review draft reports, participate in capacity building sessions as well as workshops, and define how they want things to be designed so that they are suitable for the selected cities. To achieve such involvement, all identified stakeholders will be invited to a kick off meeting in person if COVID19 restrictions enable it, during which the purpose of the project, its timelines, main results expected, and the role they are expecting to play will be explained. A timeline of engagements will be defined, and minutes of the meetings will be redacted.

Further description of the capacity building sessions and worshops for the project stakeholders is provided in Part II- Project Justification. Gender and participation indicators have been defined and are described in the respective session of the document.

Additionally, to the workshops and capacity building sessions specially designed for the project, stakeholders have been engaged since the PIF to clearly identify the risks and the opportunities arising from the project, a list of stakeholders that will be affected as well as the ones that should be involved by the project implementation has been prepared and will be revised at the start of the implementation, communication channels will be defined for each city to ensure that the activities

undertaken during the implementation is provided to the stakeholders in a meaningful way. The communication plan will also address how the feedback and disclosure of the stakeholders should be integrated to ensure that the cities remain the decision makers. A clear plan to collect appropriate data, indicators and benchmark will be established from the start for each of the cities and will be endorsed by the stakeholders.

# Please provide the Stakeholder Engagement Plan or equivalent assessment.

An Stakeholder Engagement Plan has been developed during the proposal preparation and it is presented in Annex H.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

# Antigua and Barbuda Stakeholder mapping and potential roles

Stakeholder	Relevant department	Description	Potential role in the project
National Level			
Ministry of Health and Environment	Department of Environment (DOE)	Coordinates environmental matters in the country	Major stakeholder as the impact of the projects will directly be monitored by this Ministry
Ministry of Works	Department of Infrastructure	Lead agency to implement and maintain public infrastructure in the country.	Major stakeholder as they can also benefit from this project.
ADOMS (Antigua and Barbuda Department of Marine Services and Merchant Shipping)	Maritime Affairs	Manages Maritime Affairs, Hydrography for the protection of Marine environment.	Major stakeholder as adaptation to climate change is a priority for the island.
Antigua and Barbuda Port authority	Board of Commissioners	Manages the harbour of English Harbour.	Major Stakeholder as the economy of English Harbour depends on its maritime activities.
Ministry of Tourism and Investments	Antigua and Barbuda Investment Authority	Charged with making policy and establishing policy guidelines within the tourism industry in Antigua and Barbuda.	Major stakeholders, as tourism is a pillar of Antigua and Barbuda?s economy.

Secretary, Ministry with responsibility for the Environment	Environment Division	Responsible for sustainable environmental protection and management in Antigua and Barbuda, including the implementation of various multilateral agreements on environment and climate change NDA to the GCF NDE to the CTCN GEF Operational focal points Established the Sustainable Island Resource Financing Fund (SIRF Fund). The purpose of the SIRF Fund is to provide financing to implement the Environmental Protection and Management Act (2019) in a coordinated,	Support climate risk knowledge development and coordinate mainstreaming of climate change into the municipal level Coordinate collaboration and coordination with other ministries Facilitate access to GEF finance
Antigua and Barbuda Meteorological services		systematic and cost-effective manner. Collects meteorological data	Support future climate risk assessment
Ministry of Foreign Affairs	Sustainable Development	National focal point to the GEF	Facilitate access to GEF finance
Ministry of Agriculture, Housing, Lands & Environment	Environment Division	National focal point to the UNFCCC	Observer into project?s progress and help align the project with the country?s UNFCCC commitments
Ministry of Finance and Corporate Governance	Public Financial Management Office	Coordinates the national budget, fiscal policy and all sovereign loans	Facilitate city?s access to DFI CCA finance
Ministry of Planning, Trade, Industry, Commerce, Public Service Affairs	Public Administration	Responsible for the country?s economic and industrial policies, external economic policy, infrastructure, Information and distribution/service policy, SME and regional economic policy, energy and environment policy, safety and security.	Support project?s steps related to fostering the overall economic development of the country
Ministry of Housing, Land and Urban renewal	Ministry headquarters	Responsible of housing permissions, land and urban development in the country.	Support mainstreaming of climate change adaptation at the municipal level Disseminate the municipal financing toolkit to small and medium size cities in the country

GEF Small Grants Progra mme	Antigua and Barbuda?s office	GEF is implementing Climate Change projects in Antigua and Barbuda.	GEF can become a partner in implementing the projects that will be identified during the implementation of the project.
Municipal (villag	es) level ? The Englis	sh Harbour Town	
St Paul?s Parish	Environmental Division	English harbour is a part of St Paul?s Parish	Main Stakeholder as English Harbour is a district of St Paul?s Parish.
PORT AUTHORITY	English Harbour division	Manages the harbour activities of English Harbour.	Representative of the private sector of the selected city.
Civil society and	NGOs		
Environmental Awareness Group (EAG)	St Paul Parish?s division	Leads and participates in Climate Change biodiversity projects, trainings and consultations	Active stakeholders in the island with regards to environmental discussions.
METI Trust	Antigua and Barbuda	Climate Change and environmental project development	Active stakeholders in environmental and climate change initiatives.
Private Sector			
Nelsons Dockyard	Board of Directors	Private Sector	Active stakeholders to represent the private sector of English Harbour as they have direct contact with yacht and cruises activities.
Mariners Yachtee groups	Financial department	Private Sector	Active stakeholders to represent the private sector of English Harbour as they have direct contact with yacht and cruises activities.
A&B Sailing Academy	N/A	Private Sector	Active stakeholders to represent the private sector of English Harbour as they have direct contact with yacht and cruises activities.

# Lao PDR Stakeholder mapping and potential roles

Stakeholder	Related department	Description	Potential role in the project
National Level			
National Steering Committee on Climate Change (NSCCC)		<ul> <li>Chaired by the Deputy Prime Minister, NSCCC is the high- level body providing policy guidance on climate change policies. The NSCCC oversaw the preparation of the National Strategy on Climate Change and the integration of climate change issues into the 9<sup>th</sup> five Year National Socio-Economic Development Plan (NSEDP) 2021-2025.</li> <li>The line ministries involved in NSCCC are:</li> <li>Ministry of Natural Resources and Environment</li> <li>Ministry for Agriculture and Forestry (MoAF)</li> <li>Ministry of Industry and Commerce</li> <li>Ministry of Public Health</li> <li>Ministry for Planning and Investment</li> <li>Ministry of Education and Sports</li> </ul>	- Support adoption of required climate change policies and regulations - Support project implementation through strategic guidance and coordination with key ministries

Table 4: La	o PDR	stakeholder	mapping
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		Drimo outhouity 1	
Ministry of Natural Resources and Environment (MoNRE)		<ul> <li>Prime authority and coordinating agency for climate change at the national level. It coordinates climate change action and implements climate change related activities through its provincial directorates.</li> <li>MONRE?s responsibilities include establishing coordination mechanisms amongst line ministries and development partners at national and local level, strengthening the climate change policy and regulatory framework, capacity building from central government to local levels and technical staff, and financing climate actions through assessing finance needs, formulating and implementing projects to access finance, and monitoring and evaluating climate finance</li> <li>National focal point to UNFCCC and KP.</li> <li>NDA to the GCF</li> <li>NDE to the CTCN</li> </ul>	<ul> <li>Lead the project efforts and implementation at the national level</li> <li>Facilitate access to GCF and GEF finance</li> </ul>
	Department of Climate Change (DCC)	<ul> <li>Serves as the secretariat of the National Steering Committee on Climate Change.</li> <li>Guides and supports climate change adaptation planning and climate change mitigation.</li> <li>Cooperates with different levels of government on improving policies, strategies, programmes, work plans, and legislations related with natural disaster and climate change management.</li> <li>Responsible for implementing national climate change related directions, policies, resolutions, orders, strategies, laws, and legislations of Lao PDR's government.</li> </ul>	
	Meteorology and Hydrology		
	Department of		
	Environment		

Ministry of Planning and Investment (MPI)		Following MoNRE introducing disaster risk management and climate change into the country?s Vision 2030, Strategy 2025 and Action Plan 2020, the MPI, with the World Bank?s support, decreed climate and disaster risk considerations in the public investment review process. (A climate change decree and disaster management law has been approved in 2019. The National Adaptation Plan is under development)	<ul> <li>Support to provide a project implementation approval</li> <li>Help report the project outcome/output to the government</li> </ul>
Ministry of Finance (MOF)		Responsible for managing debt, coordinating sovereign loans and conducting fiscal policy. Overlooks all kinds of sovereign finance, including <b>climate finance,</b> foreign direct investments with climate benefits and carbon markets.	<ul> <li>Facilitate city?s access to DFI CCA finance</li> <li>Facilitate city?s enlarged sub-sovereign fiscal authority and obtainment of cities or province?s credit rating</li> <li>Support identification of policies and regulations required to increase the target city?s</li> </ul>
	The State Reserve Fund, established in 2013	3 % of the annual expenditure budget is dedicated to finance disaster risk reduction and response	
Ministry Industry and Commerce National develop		<ul> <li>Promotes development of trade and industry</li> <li>Elaborates on strategic plans relating to industrial and handicrafts processing and transforms them into action plans and detailed projects;</li> <li>Surveys and collects statistical data relating to the conditions in and potential of each area, in order to promote and develop industrial and handicrafts processing throughout the country,</li> <li>Coordinates with relevant sectors to build, strengthen and upgrade the technical skills of civil servants and workers;</li> <li>Issues licenses to undertake activities of all types of industrial and handicrafts processing factories</li> <li>Drafts master plans regarding industrial and handicrafts processing development;</li> </ul>	- Support project?s steps related to fostering the overall economic development of the country with the view of improving the country?s and/or the city?s creditworthiness - Support private sector engagement

Bank of Lao PDR		Implements policies related to improving the banking sector and supporting the State-owned commercial banks including Lao Development Bank.	Potentially support a climate change adaptation credit line mechanism
Lao Development Bank (LDB)		Lao Development Bank (LDB) is a State-owned commercial bank with 100% capital owned by the Ministry of Finance (MOF) operating under the supervision of the Bank of Lao PDR. LDB contributes to the implementation of the State policies and guidelines to stimulate the national socio- economic development.	Potentially support a climate change adaptation credit line mechanism
Sub-national leve	el		
Provincial Office of Natural Resources and Environment (PoNRE)		<ul> <li>Coordinate?s climate change at the sub-national level.</li> <li>Coordinates provincial offices as well as the District/City Office of Natural Resources and Environment on climate change related activities including promoting policy, collecting data and M&amp;E.</li> </ul>	<ul> <li>Support mainstreaming of climate change adaptation at the municipal level</li> <li>Disseminate the municipal financing toolkit to small and medium size cities in the country</li> </ul>
Municipal level -	Municipality of K	aysone Phomvihane and Province	e of Savannakhet
Provincial Government of Savannakhet		<ul> <li>Management of the urban sector is essentially conducted done by the provincial government and direct representatives from line national ministries and/or departments.</li> <li>The Provincial Department of Public Works and Transport (DPWT) is one of the Government?s line departments that supports the Province in the formulation of plans and programs as well as in the implementation of local development activities.</li> </ul>	<ul> <li>Considering a centralized governmental structure in Lao PDR, the provincial government is an important stakeholder for all municipal level activities. As such, provincial level officials need to be integrated into all the project?s activities along with municipal officials.</li> <li>Provincial Project focal point</li> </ul>
	Savannakhet Office of Planning and Investment	Responsible for the implementation of climate change projects in the provincial capital of Kaysone Phomvihane.	

	Savannakhet Office of Public Works and Transport	Responsible for public infrastructure development, especially road networks, roads, public spaces, drainage and flood control infrastructure. The Office has received basic training on climate change and has intended to integrate climate change and disaster risk reduction into design of infrastructure projects	
Municipality of Kaysone Phom vihane		Responsible for the city?s coordination and daily activities (including transport/public work, environment, investment/planning, energy and mines, finance, etc.	Direct beneficiary of the project
Kaysone Phom vihane Urban Development Administration Authority (UDAA)		<ul> <li>In Kaysone Phomvihane, the UDAA is also a key actor with a mandate that includes drainage and wastewater, road improvements, building consents and waste management. Energy and water in Kaysone Phomvihane are supplied by state-owned enterprises, while solid waste management is provided by private service providers</li> <li>UDAA has been currently under the Kayson Phomvihan city office and has the right to formulate urban sector management and development plans within the urban area of Kaysone Phomvihane city.</li> </ul>	Direct beneficiary of the project
Regional initiativ	/es		
Mekong River Commission	Climate Change and Adaptation Initiative (CCAI)	Collaborative regional initiative of the Lower Mekong Basin countries (Cambodia, Lao PDR, Thailand and Vietnam) aiming to support adaptation to the impacts and new challenges posed by climate change through improved planning, implementation and learning.	

## Mozambique Stakeholder mapping and potential roles

Stakeholders	Responsible departments	Description	Role in the project
National Level			
Ministry of Land and Environment	Cultural heritage	Ministry of Land and Environment is the central body of the State apparatus which, in accordance with the principles, objectives and tasks defined by the Government, directs, plans, coordinates, controls and ensures the execution of policies in the areas of administration and management of Land and Geomatics, Forests and Wildlife, Environment, Conservation Areas and Climate Change, with headquarters in Maputo, Mozambique.	Provide political guidance to the mainstreaming of National Principles and Frameworks for Climate Adaptation.
Ministry of Land and Environment	National Direction for Climate Change.	National focal point to the GEF National focal point to the UNFCCC NDE to the CTCN	Lead the project?s efforts at the national level Facilitate access to GEF finance
Ministry of Land and Environment	National Directorate of Environment	Coordinates and manages all issues related to the environment from the Normative Frameworks to structural works.	Active member of the project coordination team to ensure compliance of the project with the Environmental Policy Frameworks such as the Environmental and Social Safe Guards Systems.
Ministry of Economy and Finance		Coordinates interaction with international development support agencies, manages sovereign loans, debt and fiscal policy. NDA to the GCF	Support project?s steps related to fostering the overall economic development of the country with the view of improving the country?s and/or the city?s creditworthiness Facilitate city?s access to DFI CCA finance Facilitate city?s enlarged sub-sovereign fiscal authority and obtainment of cities or province?s credit rating
Ministry of Public Works and Housing (MOPH)		Responsible for building codes, housing development strategies and capital investment in water and sanitation.	

Table 5: Mozambique	stakeholder mapping
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Ministry of State Administration and Public Service		The Ministry of State Administration and Public Function is the central body of the State apparatus which, according to the principles, objectives and tasks defined by the Government is responsible, for the organization, operation and Inspection of Public Administration, prevention and management of disasters, as well as and by the State Human Resources Strategic Management. Overlooks development of	Provides inputs on Local Governance and becomes member for coordination actions/purposed
Ministry of Science and Technology		innovative and sustainable solutions/technologies for climate change adaptation.	Support identification of innovative CCA solutions at the city level
Institutes			
National Disaster Risk Reduction and Management Institute		Responsible for developing plans and strategies for climate change adaptation and mitigation	
National Institute of Meteorology (INAM)		INAM is part of the Ministry for Transportation and Communication (MTC). Collects meteorological data at the country level	Support future climate risk assessment
National developm	ment banks		
Mozambique Development Bank		The National Development Strategy, which aims to ensure the implementation of the Agenda 2025, identifies the establishment of the Mozambique Development Bank (MDB) as a key step to accelerate the country?s industrialization process. The MDB would also operate as a guarantee fund and an interest rate equalization fund.	Potentially support a climate change adaptation credit line mechanism
Municipal level -	Chokwe	<u>.</u>	
Municipal Directorate for Urban Planning and Environment		In charge of climate change, urban planning and urban development matters. The Department of Urbanization and Infrastructures and, under it, the Service of Urbanization and Infrastructures, act at a community level and are responsible for enacting disaster risk management	Direct project beneficiary

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

#### Member of project steering committee or equivalent decision-making body;

**Executor or co-executor;** 

**Other (Please explain)** 

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Please see Annex I for further details.

Women in developing countries are disproportionately vulnerable to climate change risks. According to a research paper, poor women are 14 times more likely to die from a climate disaster than men (Kibria, 2016). Being primary caretakers of households, children and the elderly, women are often not able to leave vulnerable areas as easily as men. Women are also more likely to get affected by climate change effects. For example, over 70% of those displaced by floods in Pakistan in 2010 were women and children. A limited access to information on climate induced disasters and a limited decision-making power compared to men significantly reduced women?s safety. The Paris Agreement has made specific provision for the empowerment of women, recognizing that they are disproportionately impacted by climate change.

UNIDO recognizes that gender equality and the empowerment of women are not only a human right but also have a significant positive impact on sustained economic growth and inclusive and sustainable industrial development (ISID), which are drivers of poverty reduction, social integration and environmental sustainability.

Moreover, studies have indicated that gender equality has a multiplier effect on equality and enhances development across SDGs (UN Women/ UNDP 2019, IISD 2019): For instance, a greater proportion of women in positions of political authority is associated with fewer carbon dioxide (CO2) emissions, a higher possibility of ratification of environmental treaties, more land protection and higher recycling rates. (UN Women/ UNDP 2019). Gender equality seems to enhance climate action and resilience since women?s representation in politics leads to more stringent climate action.[1]

If empowered, women can play an important role in the transition to a green and climate resilient <u>economy</u> and can drive climate change adaptation, responsible consumption and production behaviors as well as pioneer a culture of circularity at many levels and in many countries ? as consumers, entrepreneurs, innovators, investors, policy makers and designers.

Therefore, the project will mainstream gender dimensions across all project activities in order to address the importance and high gender differentiated roles in the targeted sectors.

The importance of gender considerations in climate innovation and technology is included in the CTCN?s mission as well as in numerous COP decisions referring to the CTCN and its Advisory Board. To address these considerations, a gender coordinator was established within the CTCN Secretariat. Gender considerations have been incorporated internally via staff trainings on gender, as well as through CTCN services, through technical assistance, knowledge sharing, capacity building and outreach activities.

The project will hence ensure gender sensitivity in the following manners:

? A desk-based gender analysis has been conducted. During project inception this gender analysis will be validated, in particular the baseline and targets for gender targets, based on which a gender mainstreaming action plan will be developed. Monitoring and reporting on the gender mainstreaming action plan will be an integrative part of the project M&E framework.

? Gender sensitive engagement and recruitment will be undertaken at all levels, especially during the process of the project staff?s selection. Gender sensitive TORs will be developed to encourage women to apply.

? Participating national stakeholders? staff will be sensitized to the importance of gender in climate change adaptation.

? Stakeholder consultations will be done ensuring that women and men can equally lead and participate in the consultations.

? Decision-making processes will consider gender dimensions.

? Workshops and capacity building activities will ensure a balanced gender representation at both managerial and technical levels.

? All documents and publications will include gender-sensitive information and will be gender responsive.

? Overall, the project will ensure that women can equally lead, participate in and benefit from all the project?s benefits.

The gender mainstreaming strategy and gender action plan will build upon respective national policies and programmes in the participating countries and cities, listed below:

#### Antigua and Barbuda

Antigua and Barbuda has a strong legal foundation for gender equality in its Constitution. It guarantees protection from all forms of discrimination, including gender-based discrimination. In addition, the following national documents support gender equality and the empowerment of women:

? The Strategic Action Plan to End Gender?based Violence Antigua and Barbuda, 2011?2015

? Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) ratified in May 1989, Optional Protocol in May 2006

? Equal Remuneration Convention 1951 ratified in 2003

#### Lao PDR

- ? The National Strategy for Gender Equality, 2016?2025
- ? National Development Plan for Gender Equality, 2016-2020
- ? Law on Preventing and Combatting Violence against Women and Children, 2014
- ? Law on Development and Protection of Women, 2004

#### Mozambique

- ? Climate Change and Gender Action Plan (Phase 2), 2014
- ? Gender, Environment and Climate Change Strategy and Action Plan, 2010
- ? Law on Domestic Violence, 2009
- ? Revised Constitution, 2004:
- o Article 35 stresses on universality without discrimination (including sex),
- o Article 36 promises gender equality,

o Article 122 stipulates promotion and support for women?s participation, role, and empowerment in all spheres of the country?s political, economic, social and cultural life

? Advancement of Women and Gender Equality Policy and its Implementation Strategy (PGEI), 2002

A detailed description on the potential role of the stakeholders involved and their actions related to gender equality and mainstreaming gender into national and local strategies and programs/plans at national and local level are included in the table below:

#### Antigua and Barbuda

#### Gender stakeholder mapping

Stakeholder	Related department	Description	Potential role in the project
National Level			
Ministry of Social Transformation and the Blue Economy	Gender Affairs	Provides guidance and support to governmental organizations, NGOs, civil society and faith-based organizations on matters related to gender and development.	Support and mainstream gender sensitivity within the project
NGO			
Caribbean Women in Leadership (CIWIL)		Monitors, strengthens and increases women participation in decision- making processes through advocacy, networking, research and capacity building initiatives.	Support in increasing women participation in decision-making processes during the project implementation

Table 6: Antigua and Barbuda ? Gender stakeholder mapping

Island Women Open Network (IWON)		The Sustainable Energy and Climate Resilience Initiative (SIDS DOCK) in partnership with the United Nations Industrial Development Organization (UNIDO) and the regional organizations is coordinating the Island Women Open Network.	
Caribbean Youth Environment Network (CYEN)	Office in Antigua and Barbuda	Active youth engagement on CCA with involvement with national groups and networks. Under the National Adaptation Plan (NAP) youth ambassadors have been selected to help promote adaptation- oriented climate action among youth.	Promotes youth engagement on CCA.

International organizations working on mainstreaming gender in the country are: International Organization for Migration (IOM), United Nations Development Fund for Women (UNIFEM), UN Women

## Lao PDR Gender stakeholder mapping

Stakeholder			Potential role		
	department		in the project		
National Level	National Level				
National Commission for the advancement of Women (NCAW)		Formulates and implements national policies on women empowerment, monitors the implementation of these policies and of the Beijing Platform for action.	Support and mainstream gender sensitivity within the project		
	Sub- Committees for the Advancement of Women (Sub - CAW)	Sub CAW units have been established throughout the country, across Ministries and State organizations, at the provincial and capital administrative levels, creating a broad network of gender focal points.	Support and mainstream gender sensitivity within the project		

 Table 7: Lao PDR ? Gender stakeholder mapping

Lao Women?s Union	Implements laws, policies and other national plans related to development and protection of women?s rights.	Support and mainstream gender sensitivity within the project
Lao National Radio Station	GoL supports a number of initiatives to mainstream gender concerns into the media.	Broadcasts ethnic language programs that could be used to promote gender empowerment messages.
Lao Youth Union	Aims to increase the knowledge and awareness of gender equality among adolescents and youth, including at a community level	Support and mainstream gender sensitivity among the youth within the project
NGO		~ · · ·
Gender Development Association (GDA)	Focus on development of both men and women in partnership with international organizations	Support and mainstream gender sensitivity within the project

International organizations working on mainstreaming gender in the country: ADB, AusAID, EU, JICA, UN Women

## Mozambique

#### Gender stakeholder mapping stakahalda

	FF8			
Table 8: Mozambique ? Gender stakeholder mapping				
Stakeholders	Responsible departments	Description	Role in the project	
National Level				
Ministry of Women and Social Action (MMAS)		Develops and coordinates implementation of gender, child sensitive and social action policies	Support and mainstream gender sensitivity within the project	

National Council for the Advancement of Women (CNAM) National Directorate for Women (DNM)		Consultative body. Implements gender policies and, in particular, the National Plan for the Advancement of Women and national gender strategy. Advises on gender policies and facilities gender mainstreaming.	Support and mainstream gender sensitivity within the project Support and mainstream gender sensitivity within the project
	Department for Women and Family	Designs and promotes implementation of social assistance programmes targeting vulnerable women and families (especially female headed households). Conceptualizes civic education programmes to disseminate information on women?s rights and the prevention of domestic violence.	Support and mainstream gender sensitivity within the project
	Department for Gender and Development	Monitors the extent to which gender concerns are adequately integrated (mainstreamed) into the government?s sectorial plans. Facilitates the implementation of the National Post-Beijing Plan of Action (PNAM). Coordinates and implements advocacy campaigns on women?s rights. Promotes the implementation of legislation that protects women?s rights.	Support and mainstream gender sensitivity within the project
NGO Forum Mulher		Facilitates coordination among organizations dedicated to women?s rights, women?s economic and political empowerment nationwide. Provides technical training and support in gender analysis, mainstreaming and advocacy.	Help mainstream gender into the training on the municipal financing toolkit
Donor agencies Gender Coordination Group (GCG)		It groups most of the multilateral and bilateral donors and has expanded its membership to include civil society (i.e., Forum Mulher) and governmental agencies.	Support and mainstream gender sensitivity within the project

<sup>&</sup>lt;sup>[1]</sup> https://www.nature.com/articles/s41467-020-19856-w,

https://doi.org/10.1016/j.ejpoleco.2018.08.001,

https://www1.undp.org/content/seoul\_policy\_center/en/home/sustainable-development-goals/goal-5-gender-equality.html, http://www.mci.partners/blog/2018/9/24/there-is-growing-evidence-thatwomens-empowerment-and-gender-equality-has-a-multiplier-effect-on-families-communities-

businesses-and-sustainable-economies, https://sdg.iisd.org/news/undp-un-women-presentevidence-on-gender-equality-as-sdg-accelerator/, https://www.undp.org/publications/genderequality-accelerator-achieving-sdgs

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes 4. Private sector engagement

#### Elaborate on the private sector's engagement in the project, if any.

The long-term objective of the project is to increase the participating countries? and, possibly, cities? creditworthiness and unlock its **access to innovative private financing mechanisms for CCA** to further strengthen the city?s climate resilience and help the cities move towards a steady socio-economic development.

The proposed project will formulate ?innovative business models and investment approaches, seed funding and venture capital approaches to improve access to finance for private sector? and enhance the cooperation with Government and non-government institutions, private sector entities, and civil society organizations, financing institutions at the local and international level.

As explained before, the project is structured in way that it will guide the target cities through an incremental process to unlock innovative financing. Stages 1 and 2 help municipalities to build the required level of trust. While Stage 3 focus on setting the basis for cities to access financing mechanisms like CCA bonds, insurance schemes, PPP and/or crowd source funding. Different approaches to engage with private sector financiers will be also explored during Stage 3.

In terms of project activities, it is expected that the private sector will support the execution of Components 1 and 2. The engagement of the private sector will be of different nature for the 3 cities and countries in order to achieve long-lasting results.

In Antigua and Barbuda, and English Harbour city, port facilities for yachts are both government and privately managed. Thus, the interest is shared and the involvement of the private sector is expected to be facilitated relatively easily. In Antigua and Barbuda, the participation of civil society groups is also imposed by the ESS Gender guidelines that the Department of Environment governs. These groups are thus engaged in all projects through led consultation exercises to ensure inclusivity, transparency, and ownership of outcomes. Also, in Antigua and Barbuda, some CCA projects involving public and private sector have already been developed with the Ministry of Tourism, National Parks Authority, or through CYEN that has developed CCA projects in Antigua and Barbuda as community-led initiatives. These projects have successfully engaged the private sector and provide evidence that the engagement exercises are effective.

In Lao, the context is different as there are yet no policies or programs providing incentives to the private sector at the local level, and civil society and non-governmental entities have limited interest in climate adaptation in Kaysone. More efforts will need to be deployed to ensure that the private sector, the civil society and NGO engage in the implementation. To mitigate such risks, a specific ?gender and youth? stakeholder?s list as well as a specific category for ?NGO and Civil society? has been included in the mapping of stakeholder at preparation phase. Through these main stakeholders at national and local level, the executing agencies should be able to access more actors. In Lao, UN-Habitat in Laos has engaged with local partners in two southern provinces and has piloted a PPP project funded by Nordic Climate Fund.

In Mozambique, communication with the national and local officers is difficult. This is mainly due to COVID19, as well as the instability of the network and Internet. Thus, only little information has been collected with regards to the implication of the private sector and civil society on CCA initiatives. No concrete CCA projects developed in cooperation between the private and the public sector have been identified either. In this country, the support of the selected city and local partners (UN Habitat local offices, NDA, NDE) will be key to ensure the engagement of the private sector and civil society. A list of stakeholders (as well as a list of gender and youth?s entities) has been drafted at the design stage and will be reviewed at the very first stage of the implementation.

The proposed project is designed in line with the GEF policy on Stakeholder Engagement that sets out the core principles and mandatory requirements for stakeholders. It aims to bring in the private sector?s engagement through consultations, training and involvement into private sector related activities. The private sector will be engaged in prioritizing and finalizing the participating cities? climate sensitive capital expenditure plans. It will be actively engaged into mapping emerging investment opportunities. The private sector will also be considered as a targeted investor into innovative climate change adaptation technologies and as a potential direct recipient of such investments.

Private sector financiers will be engaged during the design and implementation of the Tool 5 (Present selected CCA projects to identified sector financiers). The private sector is also the core beneficiary of activity 2.1.2.2, during which 1 to 2 highest priority project proposals will be prepared to be submitted to the private sector to test their interest. The activity 2.1.3.1 will focus on organizing a seminar during which projects ideas will be pitched to selected innovative private sector finance representatives.

Furthermore, through exploring de-risking options, the project will reduce the investment risk currently borne by private sector financiers when investing in adaptation. For many of the undersubscribed investment funds, this will allow for the development of new investment portfolios. Finally, by engaging the private sector in the prioritization and finalization of innovative adaptation investment plans, the project will ensure that the final investment portfolio has been vetted by both the demand and supply side of the investment equation. In doing so it will provide private sector investors with an opportunity to shape investment offerings to ensure that they are fit for purpose.

In the medium-sized cities supported through the project, the private sector will be engaged as a provider of climate change adaptation technologies. New business opportunities for climate resilient approaches and products will be generated providing employment and growth opportunities for local enterprise.

This project aims to assist urban planners in building their capacity to produce and fund climate resilient urban plans. In particular, the project will build an understanding of possible financial tools and mechanisms for climate change adaptation technologies and will build relationships between medium size cities, their private sector, and national and international financial markets and infrastructure funds. In doing so, the project will also increase the awareness of the investment-worthiness of climate change adaptation actions among international financiers while supporting cities to develop financing proposals that meet the needs and expectations of such investors.

Notably, the co-financing from the public sector creates enabling framework conditions that de-risk key interventions envisaged by the proposed project. Additional co-financing in the form of grants, seed funding, equity from angels, venture capital funds, impact investors, crowd funding platforms etc. might be mobilized during the implementation of the project from the private sector. In line with GEF guidelines on co-financing, the co-financing that will be mobilized from the private sector during the implementation of the project will be mobilized through regular reporting mechanisms to the GEF.

#### 5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Risks	Impact Level	Potential measures
Lack of coordination during project implementation	Medium	The project will unfold in an inclusive and participatory manner making sure that all relevant stakeholders are informed and actively engaged throughout the project?s duration and facilitating frequent interaction between stakeholders in order to create a favorable environment for inter-coordination.

Table 9: Identified risks

	1	1
Climate change risk - Unanticipated climate hazards during the project	Medium	All the 3 selected countries and cities are highly vulnerable to the climate change hazards. This risk will be considered during the execution of the project. As mitigation measures, the project will be executed by a network partner of the CTCN, with the support of local partners that will be based in each city. Also, UN Habitat has direct local offices in the 3 selected countries. Thus, should any Climate Change hazards would make impossible for international consultant to travel to the respective countries, the project should still be able to continue its implementation.
		Additionally, COVID restrictions have enabled countries to work remotely, and it is already considered that most of the meetings and workshops and trainings could be held online should the local or global sanitary situation required it. This will also have direct impact in case of Climate Change hazards during which, the consultants and the cities will be more capacitated to work remotely that it was the case before 2020.
		Last but not least, this project aims to increase the resilience of the 3 selected territories. Thus, the outputs should positively affect the impact of climate risks over the period 2020 -2050.
		During the initial preparatory phase of the project, an inventory of potential hazards will be compiled based on the data and information provided by various departments related to climate change (such as the meteorological department). This inventory will be utilized to assess climate related risks, which could potentially threaten the project?s implementation, and anticipating risk mitigating action if necessary.
		Evisting risks will be considered

Environmental and social risk	Low	The project does not anticipate any social or environmental risk. On the contrary, it aims to improve the social and environmental sectors of the participating countries and cities.
Limited participation and ownership of the activities by national and municipal officials	Medium	To ensure active participation of the agencies involved, the project will highlight connection between the officials? regular mandates and the project?s activities. It will plan and pace out activities involving the officials in a way that it does not interfere but complements and increases efficiency of their ongoing work. It will also be requested that all concerned agencies integrate the project?s activities into their annual work programmes.
Institutional risk due to weak capacities	Medium	The executing agencies will pay a close attention to capacity building at all stages of the project?s implementation. If required, activities will be simplified and adjusted to what can be achieved by the beneficiaries.

COVID-19 related slow down	Medium	It is possible that some activities need to be adjusted to the international COVID related context. However, considering that climate adaptation is of high priority to all participating countries and cities, it is not anticipated that the project implementation may be significantly slowed down. Potential delays will be mitigated through replacing physical meetings and workshops by online events if and when required. As a matter of fact, several working sessions are already planned to be held online. The main barrier to that is the connectivity of the countries to a stable internet. Different platforms (Skype, teams, zoom, gotowebinar, etc.) will be tested as some of them could work better in some specific geography. As an opportunity, online working sessions limit the time requested to the stakeholders to travel to the trainings, as well as the costs related to travelling of local participants. Thus, it might give the opportunity to national officers and municipal officers to be involved in more sessions than in usual times.
		Another problem related to COVID19 could be the impossibility for international experts to travel to the respected countries and deeply understands the context of the selected cities. As a mitigation measures, the project will be partly implemented by the UNEP / CTCN through a network partner. This network partner will be selected through an international bidding process based on a technical and financial
		evaluation during which the partners will need to demonstrate not only a presence in the countries but also previous references in similar projects.

I	I	I
Procurement and implementation delays leading to adverse effects on the project?s performance	Medium	Procurement will be conducted by the executing partners as per a well- established, transparent and effective process.
		In each participating country and city, officials will be designated to carry the responsibility of timely project implementation. They will report to the official national counterparts of the project.
		Regular communication will be maintained between all the parties responsible for each activity and output.
Conflict Risks	Medium	The country is now facing challenging with terror attacks on the northern part of the country where the resources in gas, coal and oil reserves are. However, these tensions could spread through the country and represent a risk to the project. <sup>[1]</sup>

<sup>&</sup>lt;sup>[1]</sup> https://www.africanews.com/2021/04/20/40-000-displaced-in-north-mozambique-after-assault-on-palma/

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

Table 10: Institutional arrangement and coordination

	Partner	Role in the project
Executing and implementing agencies		<i>gencies</i>

<sup>6.</sup> Institutional Arrangement and Coordination

UN Habitat	<ul> <li>Executing agency</li> <li>Provides advisory support to the execution of Component 1 and implements Component 2. In particular, it will support project implementation in the three pilot cities through its country/regional offices.</li> <li>Supports UNEP/CTCN in implementing Component 3.</li> <li>UN Habitat has been working for at least 10 years in Mozambique, Lao and Antigua and Barbuda, and has local offices in these countries. Climate adaptation and climate finance have been one of its important scopes of work in these 3 countries. In addition, UN Habitat has direct connection to each of the 3 selected cities, a developed network, and the capacity to act as a local entity on behalf</li> </ul>
UNEP/CTCN	of the selected cities.Executing agencyCo-host agency to the CTCN, UNEP executes Component 1 and 3,and provides advisory support to the execution of Component 2.The procurement actions and the operational services will be carriedforward in accordance with UN policies and procurementguidelines.The selection of the institution from the Network of CTCN for theexecution of activities of the technical assistance is conductedthrough a competitive procurement process as per UNEP Rules andRegulations, in line with CTCN procedures (UNEP being the co-host of the CTCN, and a specialized agency established under theUN Charter).
UNIDO International partners	Implementing agencyExecutes Component 4, which involves the mid-term and final evaluations of the project.UNIDO, being the co-host of the CTCN, and a specialized agency established under the UN Charter, will conduct the implementation activities in line with its established policies and procedures.
CCFLA	May provide advisory support on access to innovative CCA finance
The World Bank	<ul> <li>mechanisms for the target cities</li> <li>The World Bank?s national or regional office covering the country which each pilot city belongs to will be summoned to cooperate with the national government?s relevant entities on mobilizing concessional loans for the selected pilot city.</li> <li>Led by the World Bank, the Global Platform for Sustainable Cities (GPSC) is a forum for knowledge sharing and partnership to achieve urban sustainability. The GPSC promotes an integrated approach to urban development, focusing on urban sustainability indicators, planning, and financing.</li> </ul>

The World Bank City Creditworthiness Initiative	?The World Bank has developed a City Creditworthiness Initiative to provide local leaders with support to improve municipal creditworthiness, strengthen legal, institutional, and policy frameworks for sub-national borrowing, and develop climate-smart projects. The Initiative offers this support through creditworthiness academies that give city leaders fundamental training and tools as well as through more in-depth city creditworthiness implementation programs that provide multi-year technical assistance to structure and close market-based financing transactions. This support is critically important as credit rating agencies increasingly consider climate-related risks in city credit ratings. It is estimated that every USD 1 invested via the Creditworthiness initiative leverages USD 100 in private sector financing for low- carbon and climate resilient infrastructure? (CPI, 2021)	
Regional DFI	Regional DFI each pilot city belongs to will be summoned to cooperate with the national government?s relevant entities on mobilizing concessional loans for the selected pilot city. These may include entities such as the ADB, the AfDB and the Caribbean Development Bank.	
Bilateral development institutions	Bilateral development institutions covering the country which each pilot city belongs to will be summoned to cooperate with the national government?s relevant entities on mobilizing concessional loans for the selected pilot city. These may include entities such as AFD (France), KFW (Germany).	
UNEP FI	(UNEP FI) is a partnership between UNEP and the global financial sector to mobilize private sector finance for sustainable development. Best practices and lessons learned from UNFI would be drawn to ensure that the activity under the project accelerates sustainable finance.	
PFAN	May support selected private companies in structuring a project design to seek private sector CCA finance	
International consulting companies	May offer pro-bono climate vulnerability analysis and capital expenditure planning as part of their corporate social responsibility activities (CSR). Interest may increase if support officially recognized by one or several UN agencies in charge of the project.	

#### Transfer of assets

Full or partial ownership of equipment/assets purchased under the project may be transferred to national counterparts and/or project beneficiaries during the project implementation as deemed appropriate by the government counterpart in consultation with the UNIDO Project Manager.

#### Legal Context

?It is expected that each set of activities to be implemented in the target countries will be governed by the provisions of the Standard Basic Cooperation Agreement concluded between the Government of the recipient country concerned and UNIDO or ? in the absence of such an agreement ? by one of the following: (i) the Standard Basic Assistance Agreement concluded between the recipient country and UNDP, (ii) the Technical Assistance Agreements concluded between the recipient country and the

United Nations and specialized agencies, or (iii) the Basic Terms and Conditions Governing UNIDO Projects.?

*Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.* 

**Building Climate Resilience through Innovative Financing Mechanisms for Climate Change Adaptation (2016?2020):** This GEF project, funded by a grant of USD 5 million from the Special Climate Change Fund (SCCF) and co-financing from the government of Antigua and Barbuda, focuses on developing innovative financing mechanisms to fund adaptation interventions through the Sustainable Island Resource Framework Fund (SIRF Fund), including for the building sector; and on strengthening national policies and plans to promote adaptation to climate change through, among others, updating the national building code. This project builds upon an earlier SCCF funded project with providing assistance to the building sector with activities such as: piloting the new building code on governmental buildings, training construction workers in the public and private sectors to meet the new building code?s standards, mainstreaming and increasing demand for renewable energy and mainstreaming it into private sector?s usage.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAS, NAPS, ASGM NAPS, MIAS, NBSAPS, NCs, TNAS, NCSAS, NIPS, PRSPS, NPFE, BURS, INDCs, etc.

Relevant information is provided under the participating countries? profiles

#### 8. Knowledge Management

# Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

The project aims to promote knowledge sharing through workshops and trainings targeting different audiences. The project includes training and dissemination activities for municipal officers, country officers, and local and regional stakeholders. The objective is to train municipal planners from the three involved cities in the use of the tool, but also to share the results and the potential of the tool at a country and regional level. This will raise awareness and increase the chances of replicability of the project.

The specific activities that include a knowledge management component have been described in Section I ? Alternative Scenario of this proposal. Nonetheless, the following Outputs and key deliverables can be listed: i

**Output 1.1.2:** 60 municipal planners from 3 cities (20/ per city) trained in the municipal financing toolkit and climate finance (total output budget USD 140,000)

#### Key deliverables:

A 3-day training for each city including training materials and methodologies. A short online workshop for each city, including used material and methodology. **Output 1.1.4:** Communication materials for knowledge management are developed and disseminated among NDEs and GEF Operational focal points (total output budget USD 80,663)

Key deliverables:

Three regional webinars for domestic and regional stakeholders, including training material and methodologies.

Three webinars for private sector stakeholders (one per city), including training material and methodologies

A booklet presenting the financing tool kit that will be used for dissemination purposes.

**Output 2.1.4:** Regional workshops are organized to present the toolkit and city case studies to their respective regions (total output budget USD 34,000)

Key deliverables:

A 2-day workshop for regional representatives (one per region), including training materials and methodologies.

Up to 3 municipal financing sessions targeting NDEs, GEF Operational Focal Points, national, and regional officers of developing countries, including materials and methodologies. Lessons learned from the workshops and training at a city and regional level.

**Output 3.1.1:** Lessons learned from the adoption of the toolkit are captured and used for iterative strengthening (total output budget USD 24,000)

Key deliverables:

Communication materials including the financial toolkit presentation booklet, the financial toolkit, a report on lessons learned and best practices for each city. Dissemination activities.

The outputs and respective activities will be developed under the following timeline:

The budget associated for these outputs and respective activities is expected to be of USD 278,663. Further detail can be found in the work plan and the indicative budget elaborated for the proposal.

Under the project framework, the exchange of knowledge with other similar initiatives like, for example, the Global Platform for Sustainable Cities (GPSC) will be seek. The three agencies involved in the project are partners of this initiative. Therefore, it should be possible to access gathered information and lessons learned from similar cities and regions at the beginning of the project and incorporate it through the project implementation. This will contribute to built on past experience, use available indicators (if necessary), and achieve more sustainable results.

The project results will be also shared with similar initiatives and other sustainable cities networks in an effort to disseminate the produced knowledge and contribute to the scaling up of projects tackling CCM through municipal urban planning, de-risking actions and unlocking private finance. Focal points from different initiatives and networks will be invited to participate of related webinars and workshops.

UNEP FI, a collaborating center of UNEP ? the host of the CTCN, will also share the results of the project with its large network of commercial banks to disseminate the information.

In addition to the above mentioned, it is expected that the dissemination of the information will be supported through the CTCN?s Knowledge Management System (KMS), which comprises of the following components:

1) The public web portal (www.ctc-n.org).

2) An intranet facilitating management and monitoring of CTCN operations.

3) CTCN?s virtual office, which provides online document, task and calendar management for CTCN staff and partners working in various locations.

4) CTCN Newsletter.

Existing online platforms and information systems will be updated, and information would be disseminated through the online portal, the CTCN?s progress reports, trainings and workshops, information forums, webinars, newsletters and events. Data will be uploaded to a central portal and CTCN will support this process by establishing the framework and systems to fully integrate the generated knowledge into the central information portal for its long-term usage.

The CTCN website site currently offers over 14,600 information resources, which includes CTCNcreated technical assistance information, publications, technology descriptions and on-demand webinars as well as technology reports, publications and case studies provided by partner organizations and countries. Information is searchable by content type, country, technology sector and region. As a baseline for capacity building, the CTCN carries out a number of national and international training events as well as frequent webinars attended by participants all across the world.

A gender-sensitive knowledge management and communications strategy will be developed at the start of the project. The proposed project?s strategy for knowledge management includes workshops on knowledge sharing, exchange of lessons between the stakeholders and scaling up. Dissemination of lessons learned and best practices from the baseline projects and from the project itself will be shared amongst project stakeholders including partner agencies, government ministries, civil society, NGOs and local communities.

The 3 regional municipal financing workshops will be planned under the periodical CTCN regional meetings agenda so that the 3 beneficiary cities can showcase their work, and the tools can be presented to other interested parties.

The information and results generated by the proposed project will be disseminated to the network of NDEs and GEF Operational focal points made available to the general public through the site. Finally, regional webinars will be organized to showcase the results, allowing for a wide knowledge sharing across the Global South.

#### 9. Monitoring and Evaluation

#### Describe the budgeted M and E plan

Table 11: Monitoring and evaluation budget

M&E Activity	Responsible	Schedule or	Budget	
	party(ies)	deadline	GEF Grant	Co-
				financing

Design and execute project?s monitoring plan	CTCN/UNEP	Continuous activity starting from month 6 of year 1.	6,000 USD	9,939 USD
Capture and use the lessons learned from the toolkit for iterative strengthening	CTCN/UNEP	Month 8 and 9 of year 3.	6,000 USD	9,939 USD
Develop knowledge materials and documentation on best practices	CTCN/UNEP	Month 8 and month 9 of year 3.	6,000 USD	9,939 USD
Disseminate knowledge material (includes financial toolkit presentation booklet, a financial toolkit, a report on lessons learned and best practices) and document best practices	CTCN/UNEP	Continues for 4 months that is month 8,9,10 and 11 in year 3.	6,000 USD	9,940 USD
Project evaluation reports (mid-term and final evaluation)	UNIDO	Month 11 and 12 of year 3 (last year)	20,000 USD	41,909 USD
Determine the follow up actions and recommendations for future implementation	UNIDO,	Month 11 and 12 of year 3 (last year)	11,667 USD	24,448 USD

#### 10. Benefits

# Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The proposed project fits into national strategies and action plans of the 3 countries and responds to their request of promoting innovative CCA finance, enhance the private sector?s productivity and competitiveness, protect the local environment, strengthen the country's climate resilience policies and pilot the innovative climate change adaptation financing mechanisms.

The implementation of the municipal financing toolkit will generate multiple social, economic and environmental co-benefits, which include building capacity of municipal officials, strengthening local and national institutions, introducing new and innovative financing sources for climate change adaptation in the 3 participating countries and cost-effective national budgeting and planning. The project will increase the country?s capacity to tap into more appropriate and feasible financial instruments for climate adaptation projects/programs.

Implementation of this project will reduce further losses and damages from extreme climate events. This will in turn result in increased economic growth, improved quality of life through an increased safety of citizens, businesses, communities and their properties, and in reducing chances of abrupt job losses or negative effects on livelihoods.

At the local level, the project will have a direct positive impact on the participating cities? economic and social sectors. The project will support increased local, regional and national investments, and improved decision making. Capacity building will strengthen the local stakeholders? skills, both in the public and the private sectors. Timely, accessible, high-quality information will enable better decision making and planning, and increase transparency, which will improve governance and accountability.

The project is expected to deliver tangible socio-economic benefits in a gender sensitive matter, making sure that challenges specific to women are fully included into the project?s activities.

#### 11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification\*

	CEO Endorsement/Approva		
PIF	1	MTR	ТЕ
	Low		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

The project has been labeled as a Category C project.

The proposed project is likely to have minimal or no adverse social and/or environmental impacts. No further specific environmental and/or social assessment is required during Project Formulation, although those with procurement components may still have potential environmental and social sustainability considerations. These should be addressed as part of the regular project design activities and through UNIDO?s procurement processes, as applicable.

**Supporting Documents** 

Upload available ESS supporting documents.

Title	Module	Submitted
190344_UNIDO_E&S_Screening- signed	CEO Endorsement ESS	

# ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Original excel file can be find here: https://xfiles.unido.org/index.php/s/JEsrzySkLcaXSBd

Result	Opport         Indicators         Baseline         Mid term target         Final target         Means of verification         Assumption												
Component 1: Municipal fina Outcome 1.1: A financing	output 1.1.1: The financing	e adaptation (CCA) Toolkit's materials have been	No financing toolkit tailored to target cities exists.	The 6-tools sequenced financial toolkit	The 6-tools sequenced financial	Toolkit is operational, all updated	Target cities require a dedicated						
toolkit for CCA to increase the planning capacities of policymakers from small and medium size cities	tooliit for small and medium size cities is developed and disseminated. It includes tools to assess CCA technologies in urban planning and innovative financing taking into consideration social/gender dimensions	prepared. Obstacles to accessing finance have been identified. A roadmap to identify and access innovative sources of financing has been formulated. Case studies and successfull global experiences have been identified.		developed for the target cities . Tools 1 and 2 help the city prepare a list of prioritise CCA projects. Tool 3 helps the city strengthen in budget management and capital expenditure capacity, and prepare a list of prioritised regular infrastructure projects with add-on climate adaptation measures to ensure climate resilience of related investments. Tools 4 to 6 help linking both kinds of	toolkit for the target cities updated based on feedback from its practical implementation in the participating cities and countries. It is ready for a widespread use across the target cities in LDC and SIDS.	toolkit materials available in an electronic format.	financing toolkit to improve their access to CCA finance.						
	Output 1.1.2. 60 municipal planners from 3 cities (20 / per city) trained in the municipal financing toolkit and climate finance (at lesses 40% women participate)	Key stakeholders of each eity are mapped. Total number of officials from the 3 countries and eites trained, and eacagragated by gender. No 6 sectoral short online trainings hold for each eity. No 6 partorials not heae short online trainings by gender.	Manicipal and national officials have low capacity in conducting climate vulnerability assessments, identifying prioriting and proparing CCA projects, identifying relevant sources of CCA finance and associatify unique give troppective pools of CCA finance opportunities.	projects to finance. Training materials and agenda are developed to train municipal and national officials of the participating countries. Key stakeholders of each cities are mapped. A 3-day training is conducted in each participating eity. It is expected that 60 municipal and national officers will be trained (10 should be men, and 5 women). A summary report on lessons learned in the training and feedback collection is submitted.	Municipal and national officials are informed of how to apply the financing toolkit. They have each/black valuable connectents, the toolkit in subsequent activities. 105 people trained (40 female, 63 male) LDC 60 people trained (24 female, 85 male) SC CF 45 people trained (18 female, 72 male)	Training participants' positive feedback. Participation of men and women is achieved.	Officials require capacity building on how to utilise the financing toolkit.						
	Output 1.1.3: A set of high potential climate adaptation and resilience financing solutions are mapped out and prioritized based on their ability to support investment, their sustainability and social impact Output 1.1.4: Communication	Financing mechanisms and funds for each region(country / city are mapped. List of financial entities to monitoper the benefits of CCA interventions is available. List of identified and prioritised CCA projects is available. N° of Domestic, regional	Financing mechanisms are not clearly identified, introvitive mechanisms are unknown. Indicators that financing institutions are using to monitor CCA benefits are unknown. CCA actions and projects to avoid identified damages and mercase city's climate resilience are not or only parially identified and prioritised. Domestic, regional and national focial points to global	An appling on existing financing mechanisms and innovative schemes by country is done. Indicators used by financing mechanisms to monitor CA projects are defined.     List of ongoing, implemented or planned CCA activities is made.     • CCA activities is made.     • CCA activities is made.     • CCA activities is made.     for the domestic, for workaborp by region for the domestic.	Participating citics are source of the existing financing mechanisms. Inflactors requested by these financial entities to monitor CCA are projects are defined. The 3 cities has been imoplemental, are currently under development or have been finalized. And a matrix comparing the existing financial mechanisms and the mesaures planned or ongoing is developed. Domestic, regional and national focal	Reports delivered.	Participating eitikes did not undergo such activities in the past, or at least not in the required level of detail. Executing partners possess a robus						
Component 2: Piloting of the	materials for knowledge management are developed in a gender-responsive manner and disseminated among NDEs and the GEF focal points	stackholders, and national ficeal points to global funds participating to the regional webmar, disaggregated by gender. No of private sector participating to the workshops by regions and gender. Bookler produced and available online.	Lottecher, regressi and national noise a points is given indicate a searce of the poince. The private sector is indicate a searce of the poince of the private sector is indicated, but in projects a backfur presenting it to large and ences and dissemination.	Une workshop by region to the dominency regional and natural fical points of synchrone prior and the synchrone prior workshop is is expected that 25 to 30 persons will participate to these workshop for the private sector or each country has been held. Communication booklet developed and available online. 59 participants by country are expected. It has been considered that 30 attendees will be male and 20 females.	Definition: regulation introduction for periods of global funds are conscious sectors is consistent of the opportunity leveraged by the project. Communications booklet widely disseminated online. Participation of achieved. 210 people trained (68 female, 142 male) LDCF 290 people trained (42 female, 58 male) SCCT '80 people trained (26 female, 26 male)	submitted	Executing partners posses a roous network of unger clines and the network of unger clines and the financing tooklir. Domestic, national, local and private funding sources are expecting opportunities from the ongoing exercise.						
Ouscome 2.1: Selected climate adaptation and realilence financing methods are prioritized and adapted in 3 selected small and medium size cities	Output 2.1.1: Adaptation technology financing plans for 3 small and medium size cities are developed	<ul> <li>Inventory of climate proof city's infrastructure projects.</li> <li>Tangable solutions to the challenges for tapping into innovative private CCA finance.</li> </ul>	Participating cities" capital expenditure plans are not Milliferianty holos and do noi techade CA provisions. Municipal officers are not trained to use the toolkit.	Cities have identified, prioritised and climate proofed city's infrastructure projects. Cities identified strategic barriers to tapping into innovative private CCA finance and feasible solutions to address them. Cities have improved on their city's capital expenditure planning and on related capacity. Municipal officers are being trained to use the tool 3 of the toolkit.	Citie' capacity to conduct a robust and a climater critence sensitive capital expenditure planning is siteraphtnet. M unnicipal officers have understood how the tool 3 (step 1 - 10) should be used. <b>3 plans developed (2 LDCF, 1</b> <b>SCCF 1)</b>	Improved capital expenditure plans have been prepared.	Cities are interested in ingroving their capital expenditure planning and understand the benefits of doing so.						
	Output 2.1.2: Investment projects are prioritized based on their adaptation impact, attractiveness to private sector and their financing options, their sustainability and social impact	Checklist of climate adaptation finance opportunities for small and medium size cities. Tool 3 steps 11 & £12 are developed for each city. N° of participants by gender to the workshop planned to introduce Tool 4.	Cities have not prioritised their infrastructure projects and don't have an outeraching prioritised is of CCA projects and infrastructure projects with climate resultence components	An overarching list of projects prioritized based on DFA and on innovative private sector financing opportunities. A list of CCA interventions and projects to be funded with he ciry's own capital expenditure budget. 1 to 2 project proposals to submit to relevant DF1. Training on Tool 4 is finalized.	Action plan to access innovative private sector finance for suitable city projects. Tools 1,2,3, and 4 have been explained to the selected cities. 20 people trained (7 female, 13 make) LDCF 12 people trained (4 female, 8 make)	List of prioritised projects and action plan have been drafted. Autonomy in using tool 1,2,3 and 4 of the toolkit	Cities have engaged relevant stakeholders and worked on prioritising projects.						
	of the financial community	Number of private sector financiers identified and disaggregated by gender. Credit rating request formalities completed. Lessons learned from the	Prioritised projects have not been presented to financiers and credit rating has not been requested.	Identified projects presented to identified private sector financiers. Credit rating is requested. Strategic partnerships with the private sector are established. Tool 6 is introduced to the cities.	Fruitful interaction with relevant financiers has been initiated.	Mid-term review meeting/consultation with the stakeholders     Number of active participants to	Cities have successfully implemented all the activities under the financing toolkit. There is sustained interest from						
	Ouppel 2.14.3 Regional workchops are organized to present the toolkits and city case studies to their respective regions (at least 40% women participate)	Lessons learned from the project have been documented Number of attendees at each regional workshop; a maintum of 45 participants per region and gender. N° of participants to the manicipal sessions organized by gender.	The financing tookit has been implemented in participating circles and countries, but because larmed and case analies have not yet been collected and disseminated.	Lessons learned and benchmark case studies from participating cities and countries have been darfield. 3 Tegisnian aufinies workshops have been conducted 3 regisnian aufinies workshops that will convey 5 to 10 spresentatives from at least 15 countries (both from the been considered from target cities in these countries) from each region. It has been considered that 7 of these been considered that 7 of these been considered that 7 of these been considered by the gions. Around 20 attendees per regions are expected in these municipal financing assistons. It is planned that 10 attendees will be men and 10 will be weenen.	A large number of ranget cities have been fully finalisation with the financing toolkit and lessons learned from the participant cities and countries. 7 45 people trained (216 female, 529 male) LDCF 420 people trained (120 female, 300 male) SCCF 325 people trained (96 female, 229 male)	Numer of active participants to the regional online workshops and municipal sensions.	There is sublathed interest from larger cities and countries on accessing innovative CCA finance.						
Component 3 - Project monitor Outcome 3.1: Regular project monitoring and desumantation	Output 3.1.1: The project	Availability of a monitoring	The project is yet to design and execute a monitoring	Project's monitoring plan is designed.	Project monitoring plan is executed.	Timely sharing of the monitoring	A monitoring plan and is						
monitoring and documentation for learning and knowledge sharing	monitoring plan is designed and executed.	plan and its regular execution.	plan.			plan and its regular executing reports.	execution are important to collect lessons learned throughout the project.						
	Output 3.1.2: The lessons learned from the adoption of the toolkit are captured and used for iterative strengthening. Output 3.1.3: Knowledge	Percentage of tasks and activities assigned and implemented in collaboration with relevant stakeholders.     Number of target	The initiality developed financing toolkit exists, but it has not been further strengthened based on lessons learned from the project.	Lessons learned collected and reflected in all the communication materials and financing toolkit. At least 3 target cities in at least 15 target	All communication materials, including the financial toolkit, further strengthened through addressing challenges identified through participating countries and cities using them during the course of the project. The outcomes and knowledge	Improved communication materials and toolkit. Updated online platforms of the	Lessons learned and feedback from project beneficiaries were regularly and dedicatedly collected and processed. Executing agencies have diligently						
Company of the	materials and documentation on best practices developed and widely disseminated to beneficiary cities and through CTCN network and GEF operational focal points.	Number of target representatives who received the updated commmunication materials and the updated financing toolkit.	Target audience from target cities and countries across the Global South have taken part to the regional online workshops, but have not yet received the updated communication materials.	At least 3 target cities in at least 15 target countries from each region (SIDS will combine the Caribbean and the Pacific regions) have received all the prepared communication materials.	The outcomes and knowledge produced during the project's implementation has been widely disseminated to target cities and countries.	Updated online platforms of the executing agencies, number of emails sent, feedback from target audience.	Executing agencies have diligently disseminated the creaed knowledge. Target audience has a sustained interest in the knowledge created during the project.						
Component 4 - Project evalua Outcome 4.1: Project evaluation	tion Output 4.1.1: Terminal independent project evaluation is conducted and follow up actions and recommendations actions and recommendations are determined for long term project sustainability	Number of sources of climate daptation finance distintified for sail and medium cities to access.     Number of case studies and documents consulted during the project period.     Number of consultations does for municipal officials. A roadmap developed to determine follow up actions and recommendations for funct imprementations	Project has been implemented, but not evaluated.	Project independent evaluation report is drafted and recommendations on how that are not recommendation of the second of the future are taken.	Recommendations have been processed and angrated into future processed and angrated into future executing entries.	Existence and quality of the evaluation report	Due attention is given to this last important step of the project.						

# ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Co-financing         3. Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?         Secretariat Comment at DFF/Work Program Inclusion GEFSEC 2019:       NOT ADDRESSED. The co-financing letters from the countries have not yet been received, the budget has been built based on co-financing justified by co-financing letters only. UNIDO as implementing justified by co-financing letters only. UNIDO as implementing agency is in contact with the countries and cities to finalize the co-financing letters only. UNIDO as implementing agency is in contact with the local additing the Project sites are to be determined during the PPG phase. It is acceptable at this stage. However, Agency is kingly requested to put utmost efforts to secure the identified co-finance including those of investment mobilized during the PPG phase.         2. Is the baseline scenario or any associated baseline projects appropriately described?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019:       Addressed. The baseline has been further detailed in the provoide further baseline for selected countries and rities by the CEO Approval stage, Also, please do be aware when selecting the countries.       Addressed. Baseline scenarios are sonsing properly described as per the Guidelines provide (Inther baseline for selected countries.         5. Is the incremental / additional to the PIF stage. At CEO Approval stage, the Agency is requested to put utilized for LDCs only, where as SCCF can be targeted to provide further information on additionally to the baseline scenarios relevant to the selected countries.<	GEF Secretariat comment at PIF approval	UNIDO Response
decumented and consistent with the requirements of the Co-Financing Policy and Guidelines, with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 23Dec2019:       NOT ADDRESSED. The co-financing letters from the countries have not yet been received, the budget has been built based on co-financing letters from each country. both in-kind and in grant. Unfortunately, COVID-19 and its repeated lockdowns, has made the communication with the local adding the provide truth during the PPG phase, it is acceptable at this stage. However, Agency is kingly requested to put utmost efforts to secure the identified co-finance including those of investment mobilized during the PPG phase.         2. Is the baseline scenario or any associated baseline projects appropriately described?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019;         Yes. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries and cities by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be not y tuitized for LDCs only, where as SCCF can be targeted to any developing countries.         St. Is the incremental / additional tost reasoning properly described as per the Guidelines provide in GEF/C.31/12?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019;         Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide in GEF/C.31/12?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019;         Yes. Sufficient for the PIF stage. At CEO Approval s	**	
with a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized?Secretariat Comment at PIF/Work Program Inclusion GEFSEC 23Dec2019: 		
definition of investment mobilized?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 23Dec2019:       NOT ADDRESSED. The co-financing letters from the countries and clites to explanation is not too much tangible, considering that the project sites are to be determined during the PPG phase, it is acceptable at this stage. However, Agency is kingly requested to put utmost efforts to secure the identified co-finance including those of investment mobilized during the PPG phase.       NOT ADDRESSED. The co-financing letters from each country, both in-kind and in grant. Unfortunately, COVID-19 and its repeated lockdowns, has made the communication with the local additionation more difficult, in the respective cities and countries.         2. Is the baseline scenario or any secoretariat Comment at PPG phase.       Addressed. The baseline projects appropriately described?         Secretariat Comment at PF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries and cittes by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be only utilized for LDCs only, where as SCCF can be targeted to any developing counties.       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         5. Is the incremental / additional DFF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         6. Are the projecef?/program?s indicative targeted contribut		
Secretariat Comment at PIF/Work Program Inclusion GEFSEC 23Dec2019:       NOT ADDRESSED. The co-financing letters from the countries have not yet been received, the budget has been built based on co- financing justified by co-financing letters rom each country, both in-kind annecing justified by co-financing letters rom each country, both in-kind and in grant. Unfortunately, COVID-19 and its repeated lockdowns, has made the communication with the local administration more difficult, in the respective cities and countries.         Phase, it is acceptable at this stage. However, Agency is kingly requested to put utmost efforts to secure the identified co-finance including those of investment mobilized during the PPG phase.       Addressed. The baseline projects appropriately described?         2. Is the baseline for selected countries and cities by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be only utilized for LDCs only, where as SCF can be targeted to any developing countries.       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         Sceretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019:       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         Sceretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019:       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         Sceretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. A tEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/citicis.       Addressed. Baseline scenarios have been comple	-	8
PIF/Work Program Inclusion GEFSEC 23Dec2019: Although the provided tangible, considering that the project sites are to be determined during the PPG phase, it is acceptable at this stage. However, Agency is kingly requested to put utmost efforts to secure the identified co-finance including those of investment mobilized during the PPG phase.have not yet been received, the budget has been built based on co- financing justified by COVID-19 and its repeated lockdowns, has made the communication with the local administration more difficult, in the respective cities and countries.2. Is the baseline scenario or any associated baseline projects appropriately described?Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: the only utilized for LDC sonly, where as SCCF can be targeted to any developing countries.Addressed. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries during the OPG phase that LDCF can be only utilized for LDC sonly, where as SCCF can be targeted to any developing countries.Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019. Yes. Sufficient for the PIF stage. At CED Approval stage, the Agency is requested to provide further information on additionally to the baseline project state or any developing countries.Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019. Yes. Sufficient for the PIF stage. At CED Approval stage, the Agency is requested to provide further information on additionally to the baseline project struction or additionally to the baseline seclect countries/cities.Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.FireWork Pro		
PPG phase.         2. Is the baseline scenario or any associated baseline projects appropriately described?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries and cities by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be only utilized for LDCs only, where as SCCF can be targeted to any developing countries.       total count countries during the PFG phase that LDCF can be only utilized for LDCs only, where as SCCF can be targeted to any developing countries.         5. Is the incremental / additional DFF/C.31/12?       cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.       Addressed contributions to global environmental benefits (measured through core indicative targeted contributions to global environmental	PIF/Work Program Inclusion GEFSEC 23Dec2019: Although the provided explanation is not too much tangible, considering that the project sites are to be determined during the PPG phase, it is acceptable at this stage. However, Agency is kingly requested to put utmost efforts to secure the identified co-finance including those of	have not yet been received, the budget has been built based on co- financing justified by co-financing letters only. UNIDO as implementing agency is in contact with the countries and cities to finalize the co-financing letters from each country, both in-kind and in grant. Unfortunately, COVID-19 and its repeated lockdowns, has made the communication with the local administration more difficult, in the respective cities and
2. Is the baseline scenario or any associated baseline projects appropriately described?         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019:       Addressed. The baseline has been further detailed in the proposal. Mozambique and Lao are consider LDCs and Antigua and Barbuda is a SID country. The funds will be used accordingly to the country's status.         Yes. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries and cities by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be only utilized for LDCs only, where as SCCF can be targeted to any developing countries.       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019:       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019:       Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.         GEFSEC 14Nov2019:       Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.       Addressed countributions to global environmental been fits (measured through core indicators) reasonable and achievable? Or for adaptation		
Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries and cities by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be only utilized for LDCs only, where as SCCF can be targeted to any developing countries.Addressed. The baseline has been further detailed in the proposal. Mozambique and Lao are consider LDCs and Antigua and Barbuda is a SID country. The funds will be used accordingly to the country's status.5. Is the incremental / additional CEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.6. Are the project?s/program?s indicative targeted contributions to global environmental beenfits (measured through core indicators) reasonable and achievable? Or for adaptation	*	v accoriated heading projects appropriately described?
PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries and cities by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be only utilized for LDCs only, where as SCCF can be targeted to any developing countries.Mozambique and Lao are consider LDCs and Antigua and Barbuda is a SID country. The funds will be used accordingly to the country's status.5. Is the incremental / additional to any developing countries.cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.Addressed contributions to global environmental beenview targeted contributions to global environmental beenetits (measured through core indicators) reasonable and achievable? Or for adaptation		
provided in GEF/C.31/12?Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.6. Are the project?s/program?s indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation	PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. It will be important to provide further baseline for selected countries and cities by the CEO Approval stage. Also, please do be aware when selecting the countries during the PPG phase that LDCF can be only utilized for LDCs only, where as SCCF can be targeted	proposal. Mozambique and Lao are consider LDCs and Antigua and Barbuda is a SID country. The funds will be used accordingly
Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.Addressed. Baseline scenarios have been completed, and cost of reasoning has been updated.6. Are the project?s/program?s indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation		l cost reasoning properly described as per the Guidelines
PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.reasoning has been updated.6. Are the project?s/program?s indicative targeted contributions to global environmental benefits (measured through core indicators) reasonable and achievable? Or for adaptation	*	
benefits (measured through core indicators) reasonable and achievable? Or for adaptation	PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. At CEO Approval stage, the Agency is requested to provide further information on additionally to the baseline scenarios relevant to the selected countries/cities.	reasoning has been updated.
Denenits:	benefits (measured through core benefits?	e indicators) reasonable and achievable? Or for adaptation

Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Cleared. Please note further efforts will be requested to enhance the Core Indicator targets during the PPG phase.	Addressed. Core indicators have been updated such as global environmental benefits section.
GEFSEC 14Nov2019: Need further consideration. Compared to the ambitious target of Core Indicator 1, Core Indicator 4 (no. of people trained) is exceptionally low. In revising this, please note the comment on broader learning beyond the 3 city pilots. Recommended action: Please consider increasing Core Indicator 4, or provide sufficient justification to the current figure.	Addressed. Core indicator 4 has been increased.
monitoring and evaluation outli	for project/program coordination including management, ned? Is there a description of possible coordination with /programs and other bilateral/multilateral initiatives in the

Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. However, the Agency is requested to consider including local entities as an executing agency by CEO Approval stage, after countries/cites are selected. This is to secure strong and proactive engagement from the local country/community and ensure knowledge and experience from the project remain with them. The Agency is strongly encouraged to discuss any and all options for execution that do not include the government (if this will be the case) with the GEFSEC early in the PPG phase.

During PPG stage, it will be important to provide deeper explanation on how the baseline projects/activities are helping in designing this proposal for each city (e.g., how this proposal is building on the baseline projects/activities; how lessons learned and findings from the baseline projects/activities are reflected in the proposal; identification and justification on the remaining gaps to be addressed in this project), depending on the countries/cities to be selected in the PPG phase. As the agency knows, the implementation and execution roles on GEF projects are meant to be separate per policy and guideline. The GEFSEC will analyze any requests for dual role playing by an agency at the time of CEO endorsement and only approve those cases that it deems warranted on an ?exceptional? basis. We strongly encourage the agency to look at third party options as a preferred way forward. We also strongly encourage the agency to discuss any and all options for execution that do not include the government with the GEFSEC early in the PPG phase. The technical clearance of this PIF in no way endorses any alternative execution arrangement.

Addressed. The previous initiatives and their correlation with current proposal have been described.

UNHabitat will be an executing entity for the project. The organization has local teams that can can be considered as local entities.

	rities lignment with any of the recipient country?s national strategies ments under relevant conventions?
Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: Yes. Sufficient for the PIF stage. However, during the PPG stage, please further consider further relevant policies/plans of the selected countries and cities and make sure the project is consistent with these.	Addressed. The information has been included.
	ndorsed by the country?s GEF Operational Focal Point and checked against the GEF data base?
Secretariat Comment at PIF/Work Program Inclusion GEFSEC 14Nov2019: As project sites have not been identified, there are no OFP(s) to contact. The endorsement letters from Operational Focal Point from each of the selected country are required by the CEO Approval stage (total three).	Addressed. We have endorsements letters from the Operationnal GEF Focal Points.

# ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

#### Annex C: Status of Utilization of Project Preparation Grant (PPG)

The committed funds will be spent in the project start-up phase, i.e. to fund additional relevant activities, such as for example translation of documents in local language, collection of additional co-financing letters, preparation of an environmental and social management plan, etc.

		GETI	F Amount (\$)
Project Preparation Activities Implemented	Budgeted Amount	Amount Spent To date	Amount Committed
Pre-selection of cities; Consultations with NDEs and GEF OFP of the pre-selected cities to present the project proposal and gather specific information on the needs and willingness to participate in a screening process; Guaranteeing alignment of NDEs and GEF OFPs; Identification of 3 final cities; Obtaining CTCN technical assistance request by NDEs; Translation of documents	11.200,00	0,00	10.236,41
Preparation of a gender study and an environmental and social management plan	9.200,00	1.000,00	4.000,00

Collection of baseline data	15.000,00	15.000,00	0,00
Obtaining GEF OFP endorsement letters and co-financing letters from UN agencies, development banks, public banks and governments	600,00	0,00	2.000,00
Finalization of project documents	14.000,00	15.763,59	2.000,00
TOTAL	50.000,00	31.763,59	18.236,41

# ANNEX D: Project Map(s) and Coordinates

# Please attach the geographical location of the project area, if possible.

Relevant information is provided under the participating countries? profiles

# **ANNEX E: Project Budget Table**

# Please attach a project budget table.

Original excel file can be find here: https://xfiles.unido.org/index.php/s/JEsrzySkLcaXSBd

#### ANNEX F: (For NGI only) Termsheet

<u>Instructions</u>. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

#### ANNEX G: (For NGI only) Reflows

<u>Instructions</u>. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

#### ANNEX H: (For NGI only) Agency Capacity to generate reflows

<u>Instructions</u>. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

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