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# Detailed Work Plan

## Technical Assistance for Increasing Resilience of the Education System to Climate Change in Saint Lucia and Antigua & Barbuda

Submitted to

**Climate Technology Centre and Network  
United Nations Industrial Development Organization**

By

**ECMC**

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## **Contents**

1.0	Introduction .....	1
2.0	Scope of Services .....	1
3.0	Human Resource Utilisation .....	1
4.0	Implementation Programme .....	5
5.0	Task List.....	8
6.0	Original Budget .....	10
7.0	Additional Works – Revised Budget.....	10

Appendix 1 - Inputs Required from Antigua and Barbuda



## **1.0 Introduction**

This Work Plan outlines the intended approach of ECMC's Team in undertaking the assignment - *Increasing Resilience of the Education System to Climate Change in Saint Lucia and Antigua & Barbuda*. The Work Plan provides information on the scope of services as interpreted from the Terms of Reference (TOR) in the Request for Proposal (RFP) and shares the possible variations to the scope as gleaned from the Kick-off meetings.

The report, which is Deliverable 1.1 of the consultancy assignment, includes two key attachments identified as Deliverable 1.2 and 1.3, the Monitoring and Evaluation Plan, and CTCN Impact Description, respectively. Also included is a revised work programme which reflects the impact of the variation to the scope on the assignment.

A critical note in the report is the COVID-19 mitigation measures which were generally legislated by the entire global community. The extent of the delays on the project is highlighted in the revised programme.

## **2.0 Scope of Services**

The scope of services is clearly described in the TOR of the RFP. ECMC's interpretation as outlined in the Technical Proposal, suggests that the focus of the assignment would be on Saint Lucia and the extent of services for Antigua and Barbuda, involved the updating of a concept note already prepared for the latter Country. However, based on the outcome of the Kick-off meeting with the representatives of the National Designated Entity (NDE) in Antigua and Barbuda, it became clear that the expectations were for much more. Consequently, and as means of reducing the extent of the variation to the ECMC original scope, the suggestion is for Antigua and Barbuda, to provide ECMC with the data and reports on the works accomplished to date. The ECMC Team is expected to review the information and advise as to its suitability for use in the consultancy. Where deficient, ECMC will advise as to the work which would be required to augment the existing information. The net effect of that variation to the scope is an increase in the number of person-hours by the ECMC Experts.

Concerning Saint Lucia, the scope of services has essentially remained the same except for the issue that the Ministry of Education does not have as-built drawings for the schools. Additionally, the Ministry of Education has requested that fire safety in schools be included as one of the conditions to evaluate. As this requires the input of an Architect or Mechanical Engineer, ECMC has indicated the necessity to expand its scope of services to include the requirement of the Ministry of Education.

## **3.0 Human Resource Utilisation**

Table 1 presents ECMC's intended human resource utilisation on the proposed assignment. The table identifies the lead and supporting experts on most of the activities which have been identified in the scope and activities in the TOR. Importantly, we have included the input of our Antigua and Barbuda counterpart to verify some of the information which has been sent to ECMC by the Country's NDE. The condition assessment of the buildings being considered under the proposed project is of particular interest. Therefore, it is considered necessary to require our Antigua and Barbuda counterpart to visit the said buildings and provide information on their structural integrity, particularly as it relates to the conclusions made in the Assessment Report provided by the NDE.



**Table 1 - Work Plan and Resource Utilization**

Outputs	Activities	Lead		Support								
		Experts										
		Climate Change		Snr Adv	Snr Struc Eng.	Jnr Civil Eng.	Educ	Social Experts		Civ Eng A&B	Fire Safety	
		AK	HRW	ELL	MTL	JG	ME	EJ	TAL	TG	JCFA	
<b>Output 1:</b> Development of implementation planning and periodical reporting documents	Activity 1-1: Project Inception Meeting											
	Activity 1-2: Collect Documents											
	Activity 1-3: Hold Stakeholder Consultations & Reconnoiter Sites											
	Activity 1-4: Prepare Consultancy Work Plan, Periodical Progress & Final Reports											
	<b>Deliverable 1.1:</b> A detailed work plan											
	<b>Deliverable 1.2:</b> A monitoring and evaluation plan											
	<b>Deliverable 1.3:</b> A two-page CTCN Impact Description											
	<b>Deliverable 1.4:</b> A Technical Assistance 'Closure and Data Collection Report'											
<b>Output 2:</b> Conduct rapid climate change vulnerability assessments of Saint Lucia and specifically of the education sector (twelve schools) with the purpose to identify the most vulnerable areas and schools	Activity 2-1: Perform Rapid Vulnerability Assessment & School Identification											
	Identification of Main Climate Variables											
	Assessment of exposure											
	Vulnerability Assessment											
	Risk Assessment											
	Identification of Adaptation Options											
	Activity 2-2: Coordinate and agree with key stakeholders for data, criteria											
	<b>Deliverable 2.1:</b> A Climate Risk and Vulnerability Assessment of the country											
<b>Deliverable 2.2:</b> Reviewed criteria, cross referenced with OECS guidelines												



Outputs	Activities	Lead		Support								
		Experts										
		Climate Change		Snr Adv	Snr Struc Eng.	Jnr Civil Eng.	Educ	Social Experts		Civ Eng A&B	Fire Safety	
		AK	HRW	ELL	MTL	JG	ME	EJ	TAL	TG	JCFA	
<b>Output 3:</b> List, rank and select the most climate change vulnerable areas and schools	Activity 3-1: Short-list & rank potential schools to be upgraded											
	Activity 3-2: Coordinate & agree ranking with key stakeholders											
	Activity 3-1: Review selection criteria, vulnerability, cost-effectiveness											
	Activity 3-4: Prepare preliminary cost estimates											
	<b>Deliverable 3.1:</b> Review and evaluation report of schools, & a short list and ranking of schools in St. Lucia											
	<b>Deliverable 3.2:</b> Brief school profile (i.e. climate risk, basic info, location, preliminary cost estimations)											
<b>Output 4:</b> Develop school-by-school resilience improvement packages showing options for upgrading, retrofitting or replacement needs to increase the school resilience and function as shelter (in line with OECS guidelines)	Activity 4-1: Conduct technical assessment of schools											
	Undertake Desktop Review of Existing Codes and Guidelines											
	Perform Condition Assessment of Schools											
	Establish Maintenance and Sustainability Needs											
	<b>Activity 4-1a: Conduct Technical Assessment of Schools - Addressing the issue of Fire Safety</b>											
	Activity 4-2: Integrate disaster risk reduction and resilience education in the school curriculum (formal and informal).											
	Conduct review of existing curriculum											
	Develop learning outcomes (knowledge, skills, behaviours) and sequence of content for new DRR curriculum.											
	Develop & or source relevant teaching and learning materials											
	Conduct implementation workshops											
Establish mechanism to evaluate impact of curriculum												

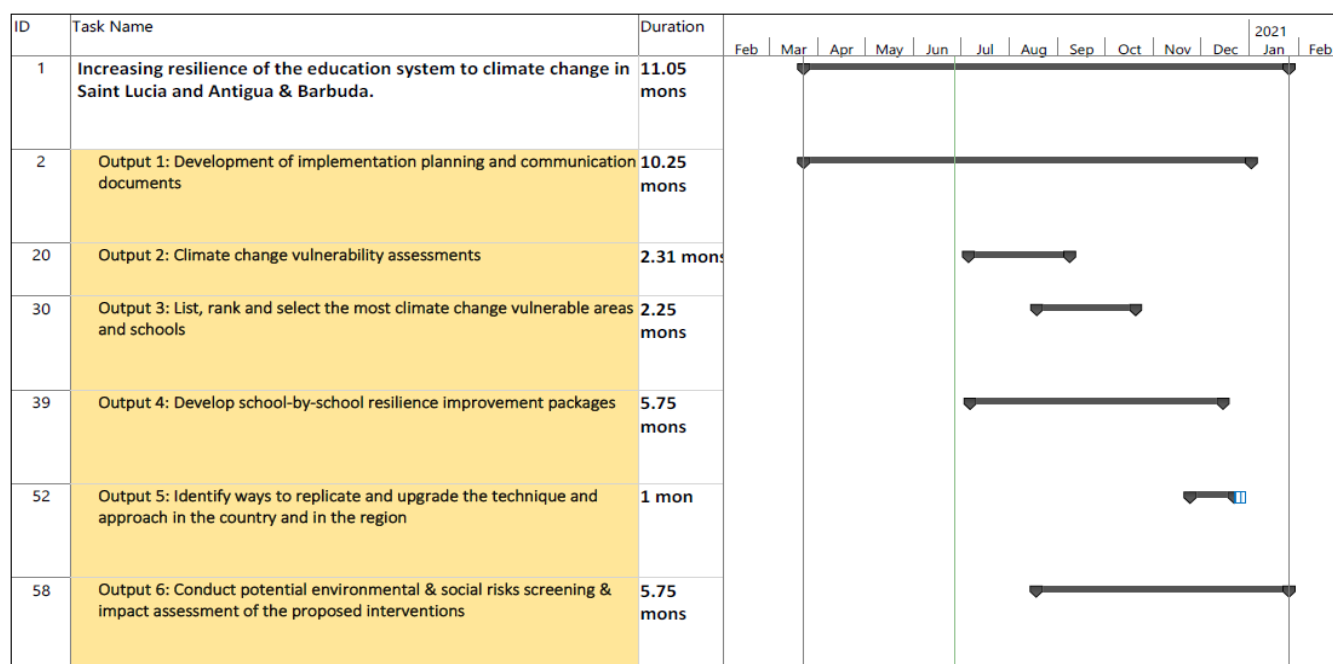


Outputs	Activities	Lead		Support							Fire Safety	
		Experts										
		Climate Change		Snr Adv	Snr Struc Eng.	Jnr Civil Eng.	Educ	Social Experts		Civ Eng A&B		
		AK	HRW	ELL	MTL	JG	ME	EJ	TAL	TG		JCFA
<b>Output 4: (cont'd)</b>	Activity 4-3: Consult beneficiary communities and vulnerable groups											
	Activity 4-4: Identify gaps in capacities of key stakeholders to implement activities											
	<b>Deliverable 4.1:</b> Technical Assessment & Technology Options report											
	<b>Deliverable 4.2:</b> Consultations report											
	<b>Deliverable 4.3:</b> Capacity gaps and needs report											
<b>Output 5:</b> Identify ways to replicate and upgrade the technique and approach in the country and Region	Activity 5-1: Road-map to integrate upgrading & technologies for all schools											
	Framework for a Disaster Vulnerability Assessment Guidelines schools											
	<b>Deliverable 5.1:</b> Document with a road map for roll-out with recommendations for upscaling and replication											
<b>Output 6:</b> Conduct potential environmental and social risks screening and impact assessment of the proposed interventions (in line with AF Environmental and Social Policy and Gender Policy)	Activity 6.1: Conduct environmental & social risks screening and impact assessments											
	Activity 6.2: Coordinate with key stakeholders for relevance to policies & regulations											
	Activity 6.3: Conduct consultations to identify concerns related to potential risks & impacts											
	<b>Deliverable 6.1:</b> Environmental and social risks screening and impacts report of proposed project activities (ESIA)											
	<b>Deliverable 6.2:</b> Environmental and Social Management Plan											
<b>Deliverable 6.3:</b> Consultations report												



## 4.0 Implementation Programme

At the proposal stage, the preliminary work schedule which was part of the RFP was adopted on the basis that it would be refined once the scope of the assignment was finalised. Having had two separate kick-off meetings, obtained clarification on the expectation of Antigua and Barbuda, and read documentation and data provided thus far, a revised programme has been developed. The revised work schedule, presented in Figure 1, provides a summary perspective with the six assignment outputs and shows that the end of the assignment is in January 2021. Output 1 is implemented throughout the consultancy and is mainly due to Deliverable 1.4 which is submitted at the end of the assignment.



**Figure 1 – Summary Implementation Schedule showing six Outputs of assignment**

Figures 2a and 2b provide a more detailed work schedule showing 67 sub-tasks. The tasks in red coloured font, reflect changes to the scope as was gleaned from the two meetings held with the Antigua and Barbuda NDE. The sub-tasks have been planned on the basis of Antigua and Barbuda working simultaneously with ECMC, to mitigate against a lengthy extension of the assignment.

Critical to the accomplishment of the suggested completion date of January 25, 2021, is the need for timely response from the NDE's to any request for data, clarifications, and review of deliverables. Durations of 0.5 months have been allowed for review of the deliverables for the review of the deliverables by the Client and NDE's. It should, therefore, be noted that the length of any delay may not necessarily result in an equivalent time for extension.

The schedule has also shown the net impact of the Covid-19 mitigation measures on the consultancy. This impact has been estimated as three months in the programme/schedule.

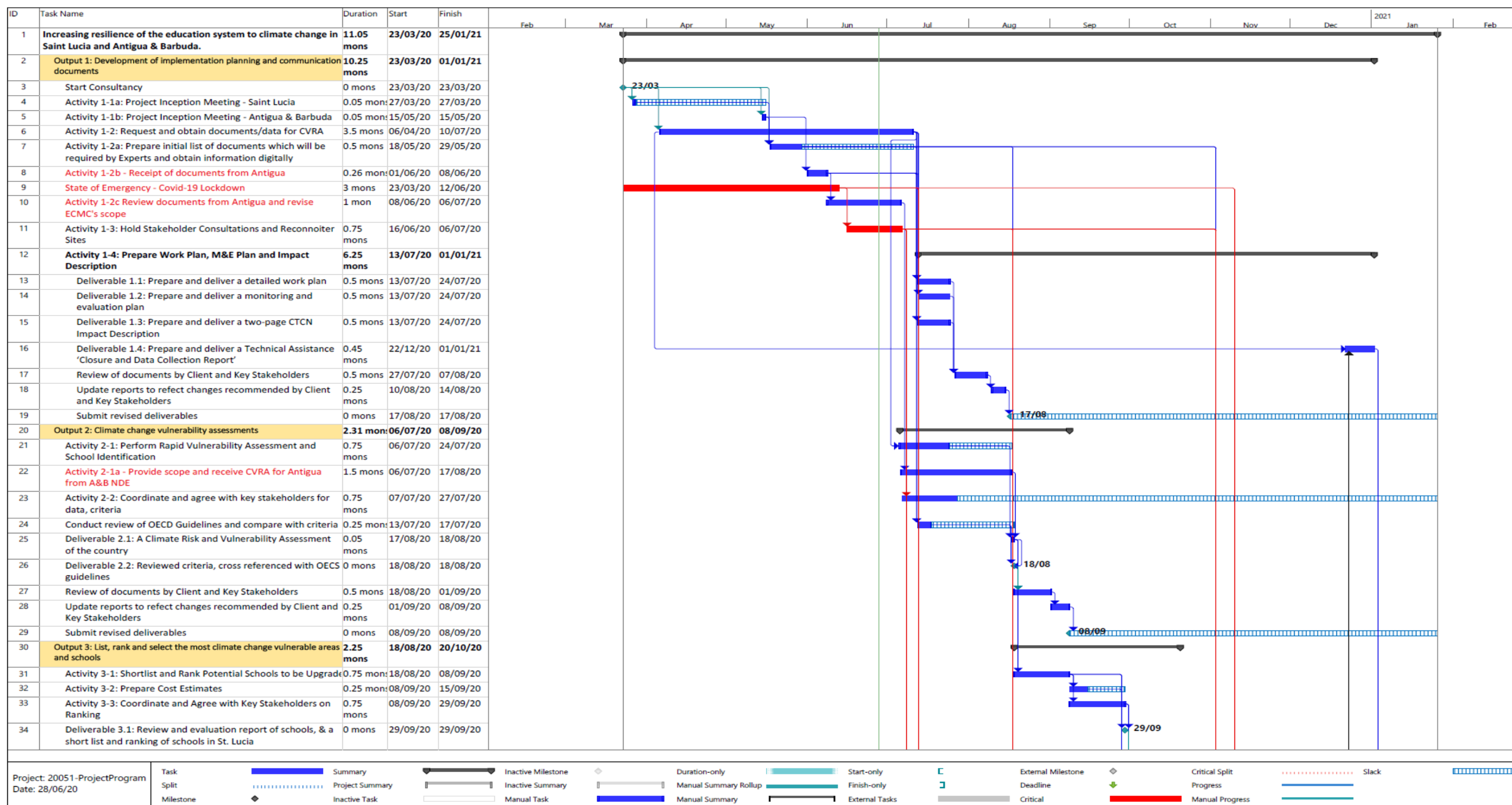
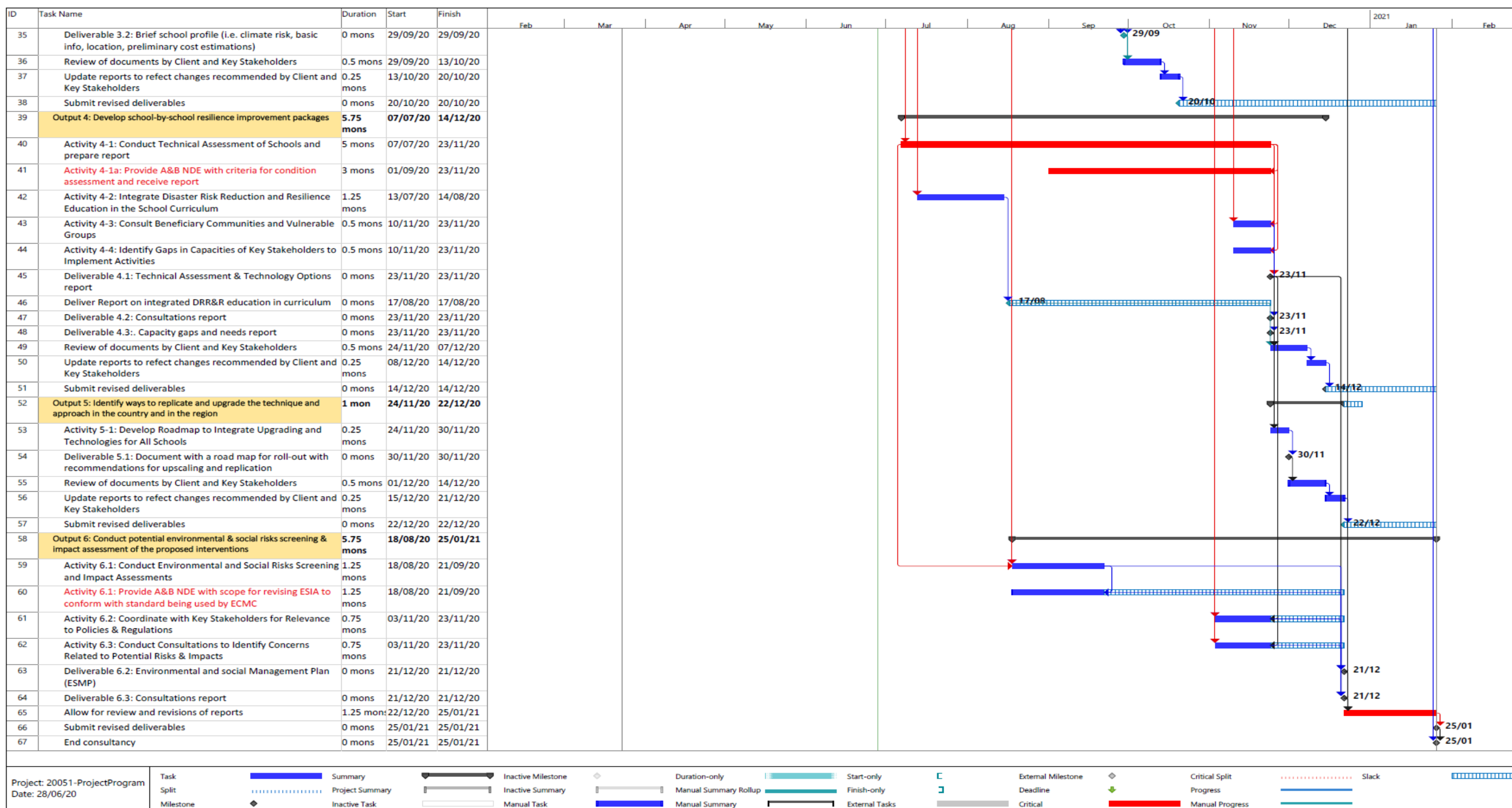


Figure 2a – Page 1 of Implementation Programme



**Figure 2b – Page 2 of Implementation Programme**



## 5.0 Task List

Table 2 provides a breakdown of the tasks and sub-tasks by duration, and start and finish dates.

Task Name	Duration	Start	Finish
<b>Increasing resilience of the education system to climate change in Saint Lucia and Antigua &amp; Barbuda.</b>	<b>11.05 mons</b>	<b>23/03/2020</b>	<b>25/01/2021</b>
<b>Output 1: Development of implementation planning and communication documents</b>	<b>10.25 mons</b>	<b>23/03/2020</b>	<b>01/01/2021</b>
Start Consultancy	0 mons	23/03/2020	23/03/2020
Activity 1-1a: Project Inception Meeting - Saint Lucia	0.05 mons	27/03/2020	27/03/2020
Activity 1-1b: Project Inception Meeting - Antigua & Barbuda	0.05 mons	15/05/2020	15/05/2020
Activity 1-2: Request and obtain documents/data for CVRA	3.5 mons	06/04/2020	10/07/2020
Activity 1-2a: Prepare initial list of documents which will be required by Experts and obtain information digitally	0.5 mons	18/05/2020	29/05/2020
<b>Activity 1-2b - Receipt of documents from Antigua</b>	0.26 mons	01/06/2020	08/06/2020
<b>State of Emergency - Covid-19 Lockdown</b>	3 mons	23/03/2020	12/06/2020
<b>Activity 1-2c Review documents from Antigua and revise ECMC's scope</b>	1 mon	08/06/2020	06/07/2020
Activity 1-3: Hold Stakeholder Consultations and Reconnoiter Sites	0.75 mons	16/06/2020	06/07/2020
<b>Activity 1-4: Prepare Work Plan, M&amp;E Plan and Impact Description</b>	<b>6.25 mons</b>	<b>13/07/2020</b>	<b>01/01/2021</b>
Deliverable 1.1: Prepare and deliver a detailed work plan	0.5 mons	13/07/2020	24/07/2020
Deliverable 1.2: Prepare and deliver a monitoring and evaluation plan	0.5 mons	13/07/2020	24/07/2020
Deliverable 1.3: Prepare and deliver a two-page CTCN Impact Description	0.5 mons	13/07/2020	24/07/2020
Deliverable 1.4: Prepare and deliver a Technical Assistance 'Closure and Data Collection Report'	0.45 mons	22/12/2020	01/01/2021
Review of documents by Client and Key Stakeholders	0.5 mons	27/07/2020	07/08/2020
Update reports to reflect changes recommended by Client and Key Stakeholders	0.25 mons	10/08/2020	14/08/2020
Submit revised deliverables	0 mons	17/08/2020	17/08/2020
<b>Output 2: Climate change vulnerability assessments</b>	<b>2.31 mons</b>	<b>06/07/2020</b>	<b>08/09/2020</b>
Activity 2-1: Perform Rapid Vulnerability Assessment and School Identification	0.75 mons	06/07/2020	24/07/2020
<b>Activity 2-1a - Provide scope and receive CVRA for Antigua from A&amp;B NDE</b>	1.5 mons	06/07/2020	17/08/2020
Activity 2-2: Coordinate and agree with key stakeholders for data, criteria	0.75 mons	07/07/2020	27/07/2020
Conduct review of OECD Guidelines and compare with criteria	0.25 mons	13/07/2020	17/07/2020
Deliverable 2.1: A Climate Risk and Vulnerability Assessment of the country	0.05 mons	17/08/2020	18/08/2020
Deliverable 2.2: Reviewed criteria, cross referenced with OECS guidelines	0 mons	18/08/2020	18/08/2020
Review of documents by Client and Key Stakeholders	0.5 mons	18/08/2020	01/09/2020



<b>Task Name</b>	<b>Duration</b>	<b>Start</b>	<b>Finish</b>
Update reports to reflect changes recommended by Client and Key Stakeholders	0.25 mons	01/09/2020	08/09/2020
Submit revised deliverables	0 mons	08/09/2020	08/09/2020
<b>Output 3: List, rank and select the most climate change vulnerable areas and schools</b>	<b>2.25 mons</b>	<b>18/08/2020</b>	<b>20/10/2020</b>
Activity 3-1: Shortlist and Rank Potential Schools to be Upgraded	0.75 mons	18/08/2020	08/09/2020
Activity 3-2: Prepare Cost Estimates	0.25 mons	08/09/2020	15/09/2020
Activity 3-3: Coordinate and Agree with Key Stakeholders on Ranking	0.75 mons	08/09/2020	29/09/2020
Deliverable 3.1: Review and evaluation report of schools, & a short list and ranking of schools in St. Lucia	0 mons	29/09/2020	29/09/2020
Deliverable 3.2: Brief school profile (i.e. climate risk, basic info, location, preliminary cost estimations)	0 mons	29/09/2020	29/09/2020
Review of documents by Client and Key Stakeholders	0.5 mons	29/09/2020	13/10/2020
Update reports to reflect changes recommended by Client and Key Stakeholders	0.25 mons	13/10/2020	20/10/2020
Submit revised deliverables	0 mons	20/10/2020	20/10/2020
<b>Output 4: Develop school-by-school resilience improvement packages</b>	<b>5.75 mons</b>	<b>07/07/2020</b>	<b>14/12/2020</b>
Activity 4-1: Conduct Technical Assessment of Schools and prepare report	5 mons	07/07/2020	23/11/2020
<b>Activity 4-1a: Provide A&amp;B NDE with criteria for condition assessment and receive report</b>	3 mons	01/09/2020	23/11/2020
Activity 4-2: Integrate Disaster Risk Reduction and Resilience Education in the School Curriculum	1.25 mons	13/07/2020	14/08/2020
Activity 4-3: Consult Beneficiary Communities and Vulnerable Groups	0.5 mons	10/11/2020	23/11/2020
Activity 4-4: Identify Gaps in Capacities of Key Stakeholders to Implement Activities	0.5 mons	10/11/2020	23/11/2020
Deliverable 4.1: Technical Assessment & Technology Options report	0 mons	23/11/2020	23/11/2020
Deliver Report on integrated DRR&R education in curriculum	0 mons	17/08/2020	17/08/2020
Deliverable 4.2: Consultations report	0 mons	23/11/2020	23/11/2020
Deliverable 4.3: Capacity gaps and needs report	0 mons	23/11/2020	23/11/2020
Review of documents by Client and Key Stakeholders	0.5 mons	24/11/2020	07/12/2020
Update reports to reflect changes recommended by Client and Key Stakeholders	0.25 mons	08/12/2020	14/12/2020
Submit revised deliverables	0 mons	14/12/2020	14/12/2020
<b>Output 5: Identify ways to replicate and upgrade the technique and approach in the country and in the region</b>	<b>1 mon</b>	<b>24/11/2020</b>	<b>22/12/2020</b>
Activity 5-1: Develop Roadmap to Integrate Upgrading and Technologies for All Schools	0.25 mons	24/11/2020	30/11/2020
Deliverable 5.1: Document with a road map for roll-out with recommendations for upscaling and replication	0 mons	30/11/2020	30/11/2020
Review of documents by Client and Key Stakeholders	0.5 mons	01/12/2020	14/12/2020
Update reports to reflect changes recommended by Client and Key Stakeholders	0.25 mons	15/12/2020	21/12/2020



Task Name	Duration	Start	Finish
Submit revised deliverables	0 mons	22/12/2020	22/12/2020
<b>Output 6: Conduct potential environmental &amp; social risks screening &amp; impact assessment of the proposed interventions</b>	<b>5.75 mons</b>	<b>18/08/2020</b>	<b>25/01/2021</b>
Activity 6.1: Conduct Environmental and Social Risks Screening and Impact Assessments	1.25 mons	18/08/2020	21/09/2020
<b>Activity 6.1: Provide A&amp;B NDE with scope for revising ESIA to conform with standard being used by ECMC</b>	1.25 mons	18/08/2020	21/09/2020
Activity 6.2: Coordinate with Key Stakeholders for Relevance to Policies & Regulations	0.75 mons	03/11/2020	23/11/2020
Activity 6.3: Conduct Consultations to Identify Concerns Related to Potential Risks & Impacts	0.75 mons	03/11/2020	23/11/2020
Deliverable 6.2: Environmental and Social Management Plan (ESMP)	0 mons	21/12/2020	21/12/2020
Deliverable 6.3: Consultations report	0 mons	21/12/2020	21/12/2020
Allow for review and revisions of reports	1.25 mons	22/12/2020	25/01/2021
Submit revised deliverables	0 mons	25/01/2021	25/01/2021
End consultancy	0 mons	25/01/2021	25/01/2021

## 6.0 Original Budget

The budget as submitted in ECMC’s proposal is identified in Figure 3. However, it should be noted that the change in scope as per the request of Saint Lucia (to include fire safety of the buildings as one of the issues to evaluate), would require the use of an Architect or Mechanical Engineer, none of whom are part of the proposed team of experts. Additionally, the expectations of Antigua and Barbuda, suggest additional input of current team members and as a result, it is also anticipated that the budget will need to be adjusted.

## 7.0 Additional Works – Revised Budget

As indicated earlier in this report, there are additional works which have been requested by both Saint Lucia and Antigua and Barbuda, which would result in an increase in the cost and resultant UNIDO budget. Specifically, Saint Lucia requires that fire safety in the schools be identified as one of the hazards for which mitigation measures need to be referenced. In addition, the Ministry of Education will not be able to provide drawings for all of the schools. As such, there will be an increase in the level of effort as time will need to be spent undertaking a tape survey of the schools, so as to produce a line drawing for some of the schools/buildings.

Relating to Antigua and Barbuda, the level of effort for all of the experts will increase, once that Country’s requirement has to be accomplished. Consequently, all ECMC’s associate experts were requested to indicate the increased effort which is anticipated to meet Antigua and Barbuda’s requirements. Figure 4, therefore, provides information on the revised budget and Appendix 1 presents a matrix and a listing of the inputs required from Antigua and Barbuda.



Outputs (add outputs as necessary)	Activities	Total Cost (per activity)	Cost Categories				Expenditure and Implementation Schedule (add columns if >24months)			
			Consultants	Travel	Workshops/Trainings	Others	6m	12m	18m	24m
<b>Output 1:</b> Development of implementation planning and periodical reporting documents	Activity 1-1: Project Inception Meeting	600	600							
	Activity 1-2: Collect Documents	500	500							
	Activity 1-3: Hold Stakeholder Consultations and Reconnoiter Sites	8,700	7,200	1,500						
	Activity 1-4: Prepare Work Plan, M&E Plan and Impact Description	1,800	1,800							
	<b>Deliverable 1.1:</b> A detailed work plan	650	650							
	<b>Deliverable 1.2:</b> A monitoring and evaluation plan	650	650							
	<b>Deliverable 1.3:</b> A two-page CTCN Impact Description	600	600							
	<b>Deliverable 1.4:</b> A Technical Assistance 'Closure and Data Collection Report'	1,100	1,100							
	<b>Sub-total</b>	<b>14,600</b>	<b>13,100</b>							
<b>Output 2:</b> Conduct rapid climate change vulnerability assessments of Saint Lucia and specifically of the education sector (twelve schools) with the purpose to identify the most vulnerable areas and schools	Activity 2-1: Perform Rapid Vulnerability Assessment and School Identification	6,000	6,000							
	Activity 2-2: Coordinate and agree with key stakeholders for data, criteria	1,650	650		1,000					
	<b>Deliverable 2.1:</b> A Climate Risk and Vulnerability Assessment of the country	2,000	2,000							
	<b>Deliverable 2.2:</b> Reviewed criteria, cross referenced with OECD guidelines	2,400	2,400							
	<b>Sub-total</b>	<b>12,050</b>	<b>11,050</b>							
<b>Output 3:</b> List, rank and select the most climate change vulnerable areas and schools	Activity 3-1: Shortlist and Rank Potential Schools to be Upgraded	1,800	1,800							
	Activity 3-2: Prepare Cost Estimates	1,600	1,600							
	Activity 3-3: Coordinate and Agree with Key Stakeholders on Ranking	1,000	1,000							
	<b>Deliverable 3.1:</b> Review and evaluation report of schools, & a short list and ranking of schools in St. Lucia	1,400	1,400							
	<b>Deliverable 3.2:</b> Brief school profile (i.e. climate risk, basic info, location, preliminary cost estimations)	1,400	1,400							
	<b>Sub-total</b>	<b>7,200</b>	<b>7,200</b>							
<b>Output 4:</b> Develop school-by-school resilience improvement packages showing options for upgrading, retrofitting or replacement needs to increase the school resilience and function as shelter (in line with OECS guidelines)	Activity 4-1: Conduct Technical Assessment of Schools	56,000	54,000	2,000						
	Activity 4-2: Integrate Disaster Risk Reduction and Resilience Education in the School Curriculum	9,000	9,000							
	Activity 4-3: Consult Beneficiary Communities and Vulnerable Groups	2,400	2,400							
	Activity 4-4: Identify Gaps in Capacities of Key Stakeholders to Implement Activities	1,200	1,200							
	<b>Deliverable 4.1:</b> Technical Assessment & Technology Options report	6,000	6,000							
	<b>Deliverable 4.2:</b> Consultations report	1,800	1,800							
	<b>Deliverable 4.3:</b> Capacity gaps and needs report	1,800	1,800							
	<b>Sub-total</b>	<b>78,200</b>	<b>76,200</b>							
<b>Output 5:</b> Identify ways to replicate and upgrade the technique and approach in the country and in the region	Activity 5-1: Develop Roadmap to Integrate Upgrading and Technologies for All Schools	3,500	3,500							
	<b>Deliverable 5.1:</b> Document with a road map for roll-out with recommendations for upscaling and replication	1,300	1,300							
		<b>Sub-total</b>	<b>4,800</b>	<b>4,800</b>						
<b>Output 6:</b> Conduct potential environmental and social risks screening and impact assessment of the proposed interventions (in line with AF Environmental and Social Policy and Gender Policy)	Activity 6.1: Conduct Environmental and Social Risks Screening and Impact Assessments	18,100	16,100		2,000					
	Activity 6.2: Coordinate with Key Stakeholders for Relevance to Policies & Regulations	8,400	8,400							
	Activity 6.3: Conduct Consultations to Identify Concerns Related to Potential Risks & Impacts	7,600	7,600							
	<b>Deliverable 6.1:</b> Environmental and social risks screening and impacts report of proposed project activities (ESIA)	11,200	11,200							
	<b>Deliverable 6.2:</b> Environmental and social Management Plan (ESMP)	5,300	5,300							
	<b>Deliverable 6.3:</b> Consultations report	1,800	1,800							
	<b>Sub-total</b>	<b>52,400</b>	<b>50,400</b>							
	<b>Total</b>	<b>169,250</b>	<b>162,750</b>	<b>3,500</b>	<b>3,000</b>					

**Figure 3 – Submitted Assignment Budget**



Outputs (add outputs as necessary)	Activities	Total Cost (per activity)	Cost Categories				Expenditure and Implementation Schedule (add columns if >24months)			
			Consultants	Travel	Workshops/ Trainings	LOE for Antigua	6m	12m	18m	24m
<b>Output 1:</b> Development of implementation planning and periodical reporting documents	Activity 1-1: Project Inception Meeting	600	600							
	Activity 1-2: Collect Documents	500	500							
	Activity 1-3: Hold Stakeholder Consultations and Reconnoiter Sites	8,700	7,200	1,500						
	Activity 1-4: Prepare Work Plan, M&E Plan and Impact Description	1,800	1,800							
	Deliverable 1.1: A detailed work plan	650	650							
	Deliverable 1.2: A monitoring and evaluation plan	650	650							
	Deliverable 1.3: A two-page CTCN Impact Description	600	600							
	Deliverable 1.4: A Technical Assistance 'Closure and Data Collection Report'	1,100	1,100							
	<b>Sub-total</b>	<b>14,600</b>	<b>13,100</b>							
<b>Output 2:</b> Conduct rapid climate change vulnerability assessments of Saint Lucia and specifically of the education sector (twelve schools) with the purpose to identify the most vulnerable areas and schools	Activity 2-1: Perform Rapid Vulnerability Assessment and School Identification	6,000	6,000							
	Activity 2-2: Coordinate and agree with key stakeholders for data, criteria	1,650	650		1,000					
	Deliverable 2.1: A Climate Risk and Vulnerability Assessment of the country	4,000	2,000		2000					
	Deliverable 2.2: Reviewed criteria, cross referenced with OECD guidelines	2,400	2,400							
	<b>Sub-total</b>	<b>14,050</b>	<b>11,050</b>							
<b>Output 3:</b> List, rank and select the most climate change vulnerable areas and schools	Activity 3-1: Shortlist and Rank Potential Schools to be Upgraded	1,800	1,800							
	Activity 3-2: Prepare Cost Estimates	1,600	1,600							
	Activity 3-3: Coordinate and Agree with Key Stakeholders on Ranking	1,000	1,000							
	Deliverable 3.1: Review and evaluation report of schools, & a short list and ranking of schools in St. Lucia	1,400	1,400							
	Deliverable 3.2: Brief school profile (i.e. climate risk, basic info, location, preliminary cost estimations)	1,400	1,400							
	<b>Sub-total</b>	<b>7,200</b>	<b>7,200</b>							
<b>Output 4:</b> Develop school-by-school resilience improvement packages showing options for upgrading, retrofitting or replacement needs to increase the school resilience and function as shelter (in line with OECS guidelines)	Activity 4-1: Conduct Technical Assessment of Schools	59,000	54,000	2,000		3000				
	Activity 4-1a: Conduct Technical Assessment of Schools - Addressing the Issue of Fire Safety	4,900								
	Activity 4-2: Integrate Disaster Risk Reduction and Resilience Education in the School Curriculum	12,000	9,000			3000				
	Activity 4-3: Consult Beneficiary Communities and Vulnerable Groups	2,400	2,400							
	Activity 4-4: Identify Gaps in Capacities of Key Stakeholders to Implement Activities	1,200	1,200							
	Deliverable 4.1: Technical Assessment & Technology Options report	9,500	6,000			3500				
	Deliverable 4.2: Consultations report	1,800	1,800							
	Deliverable 4.3: Capacity gaps and needs report	1,800	1,800			0				
	<b>Sub-total</b>	<b>92,600</b>	<b>76,200</b>							
<b>Output 5:</b> Identify ways to replicate and upgrade the technique and approach in the country and in the region	Activity 5-1: Develop Roadmap to Integrate Upgrading and Technologies for All Schools	3,500	3,500							
	Deliverable 5.1: Document with a road map for roll-out with recommendations for upscaling and replication	1,300	1,300							
	<b>Sub-total</b>	<b>4,800</b>	<b>4,800</b>							
<b>Output 6:</b> Conduct potential environmental and social risks screening and impact assessment of the proposed interventions (in line with AF Environmental and Social Policy and Gender Policy)	Activity 6.1: Conduct Environmental and Social Risks Screening and Impact Assessments	18,100	16,100		2,000	0				
	Activity 6.2: Coordinate with Key Stakeholders for Relevance to Policies & Regulations	8,400	8,400			0				
	Activity 6.3: Conduct Consultations to Identify Concerns Related to Potential Risks & Impacts	7,600	7,600							
	Deliverable 6.1: Environmental and social risks screening and impacts report of proposed project activities (ESIA)	11,200	11,200			0				
	Deliverable 6.2: Environmental and social Management Plan (ESMP)	5,300	5,300			0				
	Deliverable 6.3: Consultations report	1,800	1,800			0				
	<b>Sub-total</b>	<b>52,400</b>	<b>50,400</b>							
	<b>Total</b>	<b>185,650</b>	<b>162,750</b>	<b>3,500</b>	<b>3,000</b>	<b>11,500</b>				

Figure 4 – Revised Budget



## APPENDIX 1

### **Listing of Inputs Required from Antigua and Barbuda Department of the Environment – Government of Antigua and Barbuda**

#### **Documents Required for ECMC's to Satisfy Terms of Reference**

The Department of the Environment (DOE) will be presenting the project implementation in Antigua and Barbuda where schools, both private and public, via RFP. The Schools will be provided with a criteria for accessing and application form and information about the assessment process. The DOE is hoping that the ECMC may review the current criteria to determine if this is OK.

The current criteria and process being used are also being used for the criteria for the AF project for community centers.

The criteria to be used will generally be for the following:

- Water capture and storage;
- Backup grid interactive energy systems using solar/small wind with a small amount of batteries (schools only operate in the day);
- Public awareness program for students and parents;
- 10% for any other use the schools may need it for;

Grants will range from 50 – 250K USD;

In addition to the documents in the table (Table 1) these other documents are being provided:

- The GISS project document
- The GISS phase 2 project document
- The RFP issued for GISS schools
- The RFP issued for the Churches and other community buildings (see Adaptation Fund project document)



**TABLE 1 – DOCUMENTS**

#	Output	Deliverable	Information provided by DOE of Antigua & Barbuda		ECMC's Comments – Additional Information Required
			Background	Document	
1	<b>Development of implementation planning and communication documents</b>	Work plan	Antigua and Barbuda's airport will be opened in June, But LIAT will begin operations 30 <sup>th</sup> June.	GISS Work plan Jan – July 2020	Nothing is required from Antigua for these reports.
		Monitoring and evaluation plan	Can you advise what you need from us for this output?	Please see M&E for the Schools project (GISS). This will be a great start.	
		CTCN Impact Description	Can you explain what do you need in this area?		
		Closure and Data Collection report (English)	As above.		Antigua will be advised as we get to the end of the consultancy.
2	<b>Climate change vulnerability assessments</b>	Climate Risk and Vulnerability Assessment of the country, including vulnerability and risk map(s) and Schools location map	Maps of all of the schools are being developed. We will provide the timeline for this asap.	GIS Maps of schools in Antigua and Barbuda.	We will await your maps to incorporate in the final CVRA report.  Our Climate Change experts are well advanced and we will need information soon so as to incorporate in the final report
		Document with reviewed criteria, cross referenced with OECS guidelines	Please advise what do you need from us in this regard?		Antigua does not have to submit anything here.
3	<b>List, rank and select the most climate change vulnerable areas and schools</b>	Review and evaluation report of schools, and a short list and ranking of schools in Saint Lucia	Antigua and Barbuda will be issuing an RFP to schools. The schools will be selected based on geographical distribution, and Population served.		Since the criteria have been narrowed to energy and water supply nothing additional is required from Antigua. ECMC will use the Solar PV facility screening study for public and educational facilities



#	Output	Deliverable	Information provided by DOE of Antigua & Barbuda		ECMC's Comments – Additional Information Required
			Background	Document	
			<p>The assumption in Antigua and Barbuda is that all schools are vulnerable to drought and loss of power during a storm. Resilience school will be able to recover operations to allow children to go to school and parents to go to work.</p> <p><b>The budget is not adequate for significant structural works and therefore Antigua and Barbuda will not focus on this area in the project.</b></p>		<p>on Antigua and Barbuda Report and the GIS maps to rank the buildings.</p>
		Brief school profile (i.e. climate risk, basic info, location, preliminary cost estimations)	<p>We Can provide general school profiles based on the previous projects.</p> <p>Can you advise what other information you will need?</p>	<p>See lessons learnt report from the GISS project</p> <p>GCF built example of school assessment. Document prepared by ECMC and UNEP.</p>	<p>With the narrow criteria of energy and water, drought information showing a likely drought index for each building site or showing the susceptibility of the areas to drought would be required. This could be included in GIS maps.</p>
4	<b>Develop school-by-school resilience improvement packages showing options for upgrading, retrofitting or replacement needs to increase the</b>	Technical assessment and technology options report for schools upgrading to improve climate change resilience and sustainable functioning and subsistence of schools. This would include the school assessments and a site-based upgrading report	For the A&B schools see the general ECMC and UNEP reports that provide detailed assessments of buildings that are not necessarily schools, but they provide the general conditions of buildings in Antigua and Barbuda		<p>Similar information will be required for the selected buildings or can be ignored if <b>the budget is not adequate for significant structural works and therefore Antigua and Barbuda will not focus on this area in the project.</b></p>



#	Output	Deliverable	Information provided by DOE of Antigua & Barbuda		ECMC's Comments – Additional Information Required
			Background	Document	
	school resilience and function as shelter (in line with OECS guidelines)	Integrate Disaster Risk Reduction and Resilience Education in the School Curriculum			<p>Ministry of Education Policy documents related to climate change adaptation or disaster risk reduction (DRR), resilience education in schools.</p> <p>Information on professional development programmes (completed or on-going) to train principals and teachers in climate change adaptation or DRR.</p> <p>Information on extra-curricular activities (completed or on-going) related to climate change adaptation or DRR in schools and surrounding communities: e.g. school environmental clubs; public relations campaigns in schools and communities; engagement with disaster preparedness and response institutions like the Red Cross, or the national emergency management unit.</p> <p>Teaching/learning material related to climate change or DRR that are in use in the schools.</p> <p>Scope and sequence charts that indicate where competencies related to climate change adaptation or DRR already appear in the school curriculum.</p>



#	Output	Deliverable	Information provided by DOE of Antigua & Barbuda		ECMC's Comments – Additional Information Required
			Background	Document	
					<p>A listing of the competencies and suggested learning activities that would form the proposed DRR curriculum.</p> <p>A listing of the strategies for inclusion of the proposed DRR programme in the school curriculum.</p> <p>Information from consultations/meetings held with principals, teachers, students, community members and other stakeholders to sensitize them and to gather their input before, during and after the development of the proposed DRR programme.</p>
		Consultations report	Can you provide more guidance on how do you plan to approach this.	Consultations reports for the GISS and the GCF build – GCF Build reports <i>upcoming</i>	<p>Ensure consultations are held with stakeholders.</p> <p>Information and data collected in various ways specified in the SMEP (e.g. Focus Group, Key Informant Interviews – virtual face to face).</p> <p>Text data (qualitative) is analyzed (narrative and thematic) to prepare the consultation report (issues, solutions, recommendations, follow-up) and inform decision-making.</p> <p>Stakeholders given the opportunity to validate the findings before finalization and official submission.</p>



#	Output	Deliverable	Information provided by DOE of Antigua & Barbuda		ECMC's Comments – Additional Information Required
			Background	Document	
		Capacity gaps and needs report	Can you provide more information on what do you need for this. We will provide some suggested documents.	<p>Technical Manual which include the organizational chart of the DOE;</p> <p>The DOE is an accredited entity and we can provide evidence of this. The AMA of the GCF and the AF board decisions.</p>	<p>Undertake Capacity Gap Analysis which did the following:</p> <p>Assessed gaps in awareness, knowledge and skills of personnel responsible for delivering components of the programmes, and identify any overlap and implications for project performance;</p> <p>knowledge of roles &amp; responsibilities of key implementers and discuss implications for project implementation; Identified gaps in functional skills regarding management and governance tools, specifically on information generation for planning, budgeting, and monitoring and evaluation;</p> <p>Explored stakeholders' perceptions of existing mechanisms for project delivery and coordination;</p> <p>Highlighted the role of civil society organizations and other stakeholders in programme implementation; and</p> <p>Identified opportunities and challenges for effective project implementation.</p>



#	Output	Deliverable	Information provided by DOE of Antigua & Barbuda		ECMC's Comments – Additional Information Required
			Background	Document	
					Note: data for items 5 and 6 above can be captured during stakeholder consultations.
5	Identify ways to replicate and upgrade the technique and approach in the country and in the region	Document with a road map for roll-out with recommendations for upscaling and replication	The DOE will be using these upgrades to finalize the building codes which will be used as a guide for the physical planning department	See draft Building code;	No information would be required other comments and suggestions as to how the document which will be produced can be adapted for use regionally.
6	Conduct potential environmental and social risks screening and impact assessment of the proposed interventions (in line with Adaptation Fund (AF) Environmental and Social Policy and Gender Policy)	Environmental and social risks screening and impacts report of proposed project activities (ESIA)	The DOE can conduct this using internal staff.	ESIA for GCF Build and for GISS (if available)	6 (a) Consult Green Climate Fund (GCF) Environmental and social management system: environmental and social policy (See <a href="https://www.greenclimate.fund/sites/default/files/document/gcf-b19-06.pdf">https://www.greenclimate.fund/sites/default/files/document/gcf-b19-06.pdf</a> ). The Guidelines should be followed for ESIA.  See below from Environmental Expert
		Environmental and social Management Plan (ESMP)	As above	See ESIA for the CDB SEF project.	6 (b) The Caribbean Development Bank Environmental and Social Review Procedures ( <a href="https://www.caribank.org/sites/default/files/publication-resources/EnvironmentalandSocialReviewProcedures.pdf">https://www.caribank.org/sites/default/files/publication-resources/EnvironmentalandSocialReviewProcedures.pdf</a> ), and the Gender Policy and Action Plan of The Adaptation Fund ( <a href="https://www.adaptation-">https://www.adaptation-</a>



#	Output	Deliverable	Information provided by DOE of Antigua & Barbuda		ECMC's Comments – Additional Information Required
			Background	Document	
					<a href="http://fund.org/wp-content/uploads/2016/04/OPG-ANNEX4_Gender-Policies-and-Action-Plan_approved-in-March-2016-1.pdf">fund.org/wp-content/uploads/2016/04/OPG-ANNEX4_Gender-Policies-and-Action-Plan_approved-in-March-2016-1.pdf</a> ) should be followed in preparing the ESMP.
		Consultations report	As above Please advise when you will need this.		<b>6 (c)</b> These reports are needed before the Capacity Gaps and Needs analysis and the social risks screening and impact assessment etc. People's perceptions from the consultations can be included in a revised baseline.



## **Requirements from Antigua for each school regarding the Environmental and Social Risks Screening and Impact Assessment**

To adequately prepare the Environmental and Social Risks Screening and Impact Assessment, it was assumed that works comprise, installation of solar/wind facilities, water interception and public education and awareness.

1. Policy, legal and institutional framework – environment, education, gender, labour & OSH, biodiversity, heritage conservation, differently abled, human rights, climate change, renewable energy/Gridcode, Nationally Determined Contribution (NDC), water supply, public/environmental health (e.g. effluent quality for discharge).
2. Permits required (construction, effluent discharge, energy, water harvesting and storage) and monitoring regimes of regulatory authorities.
3. Description of the site – topography, soil type, drainage (internal and external), surrounding land use (including natural habitats and cultural heritage), access/traffic and related safety provisions, buffers, plot and building areas (total building footprint, space dedicated to other uses, and useable space available for expansion or proposed works).
4. Amenities e.g. play/sports areas, water storage, RE, backup generator, rainwater harvesting (quantify size, capacity, etc).
5. Hazard risks in the immediate vicinity – wind, storm surge, flooding, landslide.
6. Hazard maps for the study areas.
7. Other available maps or publications of relevance for study areas e.g. biodiversity, heritage, water courses.
8. Elevation, distance from HWM.
9. Utilities - water, electricity - in the area (services provided, redundancies, reliability, and their performance at the school).
10. Description of the school population (teachers, students, gender split, differently abled enrollment), curriculum (especially those that consume water, electricity, generate pollutants/emissions), expansion plans (size, curriculum).
11. Description of school plant (age, building materials, finishes, quality of construction, flow (utility, safety, disabled access), school waste management (sewage, grey water, solid waste, lab waste), compliance with relevant standards re schools, planning, building e.g. classroom size, building setbacks, Building Code, performance/comfort in high temperatures and high rainfall conditions) and historical performance (access/egress, safety, time to resume normal services) in extreme natural or other events- drought, wind, storm surge, flooding, landslide, earthquake, fire, etc., water and electricity conservation measures already built-in or inherent in design, plans for upgrades.
12. Building condition assessments.
13. Accident record.
14. Emergency management plan for the school.
15. Drill frequency and details.



16. Criteria applied for selection of schools; ranking of selected schools.
17. Description of proposed works (type and extent of works, proposed location (whether within or beyond school compound), sources of materials, local capacity to install, commission and service, sector capacity to operate and maintain, design life and decommissioning requirements), and potential implications for safety, convenience, access (including differently abled), comfort of school population and adjacent users during construction, operation, maintenance and decommissioning (likelihood and impacts of noise, dust, interruption of utilities, disruption of traffic, OSH issues, aesthetics for neighbours and school users, pollution, etc.)
18. Plans for use of the water harvested, and how water quality will be monitored.
19. Description of planned training of system managers and project PEA proposed.
20. Responsibility for maintenance and inspection of school plant and grounds, including proposed works. Adequacy of budgets and other resources. Procedure for identification and rectification of defects. Recommendations for improvement.
21. The Environmental and Social Management System of the Implementing Entity.
22. Consultations to ascertain stakeholder concerns and recommendations in relation to planned works (installation, operation, decommissioning) and their recommendations for increased school resilience, Stakeholders include - students, teachers, parents, principal, maintenance staff, APUA (water and electricity departments), Ministry of Public Works, Education, Public Health, Environment, Solid Waste, Energy, Emergency Services, Heritage Organisation (if deemed necessary), adjacent communities.