

UNIVERSIDAD PARA LA COOPERACIÓN INTERNACIONAL  
(UCI)

Establishing a Project Management Office (PMO) at the Caribbean Community  
Climate Change Centre (5Cs) based in Belize for the CARICOM Member States

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## **DEDICATION**

This research project is dedicated to my family and close friends that have encouraged me to pursue a higher level of education and have demonstrated their support while I journeyed through this Master's Programme. For them, I am very grateful.

To the professors that offered their time beyond just teaching the course, I extend much gratitude. To my fellow peers, in most instances that have bonded into friendship that will far exceed this programme, thank you for being a listening ear, an advisor, and most importantly, my source of motivation when things proved difficult.

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Firstly, I acknowledge God for granting me good health, strength, and wisdom in order to complete this process.

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Finally, to the staff of the Caribbean Community Climate Change Centre (CCCCC) for the time, dedication, and participation in the interviews and questionnaires which provided the necessary data for the completion of this study.

## **ABSTRACT**

This paper presents a comprehensive proposal to establish a Project Management Office (PMO) with the intent to standardize, guide, and supervise the development and management of projects for a climate change organization. A defined methodology is needed in the organization as it operates in isolation and manages each project guided by individual knowledge of its project managers. It will therefore illustrate that a PMO can provide focus support throughout the project lifecycle with the organization.

A number of analysis are engaged to determine the maturity level, discuss the types of PMO and identify which is suitable, and help standardize the development and management of the projects in the organization. Methodologies utilized adhered to the roles and responsibility for a PMO are identified by the PMBOK Guide as it relates to support, control, etc. at different levels of the project lifecycle.

In conclusion, it is determined that a study will help to compile the necessary information to convince the organization on its need to implement a PMO. A thorough analysis will identify the needs of the organization while establishing the proper PMO. The paper ends with recommendations to increase the capabilities of the organization in its project development and management aspects.

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## ABBREVIATIONS AND ACRONYMS

- CCCCC Caribbean Community Climate Change Centre
- CMM Capability Maturity Model
- FGP Final Graduation Project
- GCF Green Climate Fund
- KPI Key Performance Indicators
- LIDAR Light Detection and Ranging
- MPM Masters in Project Management
- OPM3 Organizational Project Management Maturity Model
- P3M3 Portfolio, Programme and Project Management Maturity Model
- PMBOK Guide Project Management Body of Knowledge
- PMI Project Management Institute
- PMO Project Management Office
- SMCI Standardize, Measure, Control, Improvement
- UK United Kingdom
- UNEP United Nation Environment Programme
- UNFCCC United Nations Framework Convention on Climate Change
- UNITAR United Nations Institute for Training and Research
- WBS Work Breakdown Structure

## EXECUTIVE SUMMARY

As it became apparent that human activities such as deforestation, burning fossil fuels, and livestock farming were contributing to the effects of climate change, there was a greater need to find possible solutions to combat these drastic changes. If climate change was visible in many developed countries across the world, how were the small developing nations coping? The effects caused an even greater strain on the developing countries in the Caribbean region. For that reason, the formation of the Caribbean Community Climate Change Centre (CCCC) was constituted. Established in August 2005, the CCCCC was responsible for developing climate change responses and effective solutions to combat the environmental impacts caused by climate change and global warming. The CCCCC provides the CARICOM Member States and countries across the global with information to make informed decisions using climate modeling, environmental scanning, lidar system, and a clearinghouse that contains a wealth of information. It provides project development and support, training, consultation, and joint venture services.

The increased demanding needs of the CARICOM Member States and the lack of human resources at the CCCCC have impacted its abilities to deliver timely support. It is vital to establish a project selection procedure to determine suitable projects that align with the CCCCC's mission and vision and to enforce best practices encouraging synergy. The CCCCC is not financially supported by the countries it serves, rather, it is required to generate its own income through the services it provides. Therefore, enhancing its capabilities to increase its efforts in securing bankable adaptive and mitigative projects is imperative to the CCCCC's existence. The general objective of the Final Graduation Project was to propose a Project Management Office (PMO) for the Caribbean Community Climate Change Centre to maximize the organization's implementation potential through standardizing project management policies, processes, and methods for the projects being undertaken. The specific objectives were to evaluate the maturity level of the CCCCC to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change; to comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC; to propose the PMO's functions and responsibilities to determine its effectiveness; to propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures

needed to monitor and enhance the CCCCC project delivery performance and to identify an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions; and to determine a set of KPIs to measure the performance of the PMO.

The development of this project relied on three methodological components that were realized through the literature review on various other research. These components were analytical, observational, and unstructured interviews. Information was obtained from various sources including, the CCCCC clearinghouse, observations, interviews with key personnel and stakeholders, A Guide to the Project Management Body of Knowledge (PMBOK® Guide) Sixth Edition (PMI, 2017), and internet sources. The analytical, internet sources and the PMBOK Guide allowed for a comprehensive analysis of the organization's structure while the observational and unstructured interviews provided insights on the methods used and acceptance of the deliverables developed from the Final Graduation Project.

The maturity assessment results determined that the CCCCC's maturity is Standardize. Although it is at the lower end of the maturity scale, it has a high potential for further maturity. The CCCCC demonstrated both strengths and weaknesses in project management areas such as stakeholder management and scope management. Following an assessment of the three primary types of PMOs, it was determined that a Hybrid of Supporting and Controlling PMOs was the best fit for the CCCCC. The proposed PMO's main functions and responsibilities are project methodology development, project tracking, and project support. With the CCCCC's organizational culture in mind, an implementation plan for the PMO was created that would be carried out over a twelve (12) week period. Finally, a set of key performance indicators was developed to track PMO performance and demonstrate financial sustainability.

The objective of this research determined that a PMO is necessary and should be developed to improve program management and increase the CCCCC's financial sustainability to achieve effective results in the implementation of its organizational mandate. It was recommended that an annual maturity assessment be performed to determine maturity as well as to identify the CCCCC's strengths and needs over time. A monitoring and evaluation plan should be developed for the PMO. Internal audits would be required on a semi-annual basis during the first two years of the PMO's existence. This assessment will give project management and the CCCCC administration the opportunity to analyze the PMO's relevance and advise other relevant stakeholders on its suitability. Because the CCCCC is implementing a PMO for the first time, it is recommended that the process be led by a team with the necessary expertise. A task force should be formed to assess the functions and responsibilities of the PMO. This would allow for a smooth transition to the PMO's successful implementation

## INTRODUCTION

### 1.1. Background

The Caribbean Community Climate Change Centre also known as (CCCCC or the 5Cs) officially started their operations in August 2005. They are responsible for the Caribbean Region's response to climate change, working on effective solutions and projects to combat the environmental impacts of climate change and global warming. The CCCCC is a repository and Clearinghouse that archives a wealth of information on climate change data, documentation, and issues and provides the Caribbean with efforts to mitigate and adapt to climate change. It provides climate change-related policy advice and guidelines to the Caribbean Community (CARICOM) Member States through the CARICOM Secretariat and to the UK Caribbean Overseas Territories.

As the coordinator of implementing climate change projects and programmes, the CCCCC is recognized by the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Environment Programme (UNEP), United Nations Institute for Training and Research (UNITAR), and other international agencies as the focal point for climate change issues in the Caribbean. It has also been recognized by UNITAR as a Centre of Excellence, one of an elite few.

In 2015, the CCCCC successfully sought accreditation under the Green Climate Fund (GCF) to serve as a Regional Direct Access Entity which allows it to access financing of up to US\$50 million per projects/programmes. The CCCCC works with regional and international agencies, donors, and non-governmental organizations to secure and mobilize funding for climate change projects carried across the Caribbean Region. For this reason, the CCCCC encounters challenges as it relates to satisfying the needs requirements of all the agencies/donors/organizations it coordinates with as well as satisfying its own needs.

As time progresses, the effects of climate change are experienced and realized across the globe at various levels. Particularly in the Caribbean, we experience a rise in sea levels that sometimes lead to the pollution of underground water resources, coastal flooding, and the increased likelihood of storm surges.

Due to the increased effects of climate change-related issues, there is a greater need in guiding the CARICOM Member States to develop bankable adaptive and mitigative projects. Accordingly, the establishment of a Project Management Office (PMO) would ideally provide project support that would offload the administrative burden from project managers and consulting and mentoring for information sharing purposes throughout the organization is encouraged.

## **1.2. Statement of the Problem**

Like many organizations, the CCCCC faces challenges to keep up with the increased demand from the CARICOM Member States. Therefore, the rate of developing and implementing successful projects has become an issue. The CCCCC needs to establish project selection procedures to determine and consider suitable projects that align with its mission and vision. Nonetheless, some standards were developed for the Project Management and Development Unit that contributed to the CCCCC accreditation to one of the world's relatively new, but steady growing climate funder, the Green Climate Fund (GCF).

It is determined that not all these standards are being adhered to for successfully implementing projects. Certain methods are needed to enforce best practices and ensure that members of the organization work in synergy. Currently, all operations are performed to satisfy the different individual donors that have posed several requirements while the CCCCC does not have any of its own. Another issue is that in many instances, managers are not properly equipped with the necessary

guidelines to tackle any potential challenges associated with project management that result in lower productivity which ultimately causes loss of revenue.

### **1.3. Purpose**

The purpose of this research is to analyze the current organizational structure to determine the effectiveness of a PMO that can be measured quantitatively and the project management maturity at the CCCCC. The analysis will provide insights to ensure that all units are working together rather than independently. Thereafter, the development of a suitable PMO proposal for CCCCC will be demonstrated. Regardless of the type of PMO determined, it is to maximize the CCCCC's income generation capabilities.

The expected benefits of this research are to:

- 1.3.1 Improve the overall project success rate
- 1.3.2 Establish common policies, standards, and procedures
- 1.3.3 Ensure compliance with the organization's business strategy

### **1.4. General Objective**

To propose a Project Management Office (PMO) for the Caribbean Community Climate Change Centre to maximize the organization's implementation potential through standardizing project management policies, processes, and methods for the projects being undertaken.

### **1.5. Specific Objectives**

- 1.5.1 To evaluate CCCCC's maturity level to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change.
- 1.5.2 To comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC.

- 1.5.3 To propose the PMO's functions and responsibilities to determine its effectiveness.
- 1.5.4 To propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures needed to monitor and enhance the CCCCC project delivery performance and identify an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions.
- 1.5.5 To determine a set of KPIs to measure the performance of the PMO.



## **THEORETICAL FRAMEWORK**

### **2.1 Company/Enterprise Framework**

#### **2.1.1 Company/Enterprise Background**

The CCCCC is an organization that provides support to the Caribbean people by addressing the impacts of climate variabilities and changes as they relate to economic development. Through its regional and international agencies, donors, and non-governmental organizations to mobilize funding for climate change projects in the CARICOM region, the CCCCC serves as either the executing entity or implementing partner. Figure 1 is a map that indicates the CARICOM Member States of which the CCCCC serves. Since its inception in 2005, the CCCCC has successfully implemented and executed numerous projects throughout the Caribbean ranging from retrofitting buildings to providing scientific research and methodology to support the development of a project. The CCCCC primary and only source of income are dependent on the percentage of management fees obtained by the types and number of projects it manages. Its operations are guided by the CARICOM Regional Framework for Achieving Development Resilient to Climate Change (Regional Framework) that provides a platform for countries to systematically address challenges imposed by climate change in the Caribbean.

This study aims to better understand the types of PMO that will then help to determine if there is a need for a PMO, what type of PMO, the position within the current organizational structure, and how it will contribute to the organizational performance at the CCCCC.

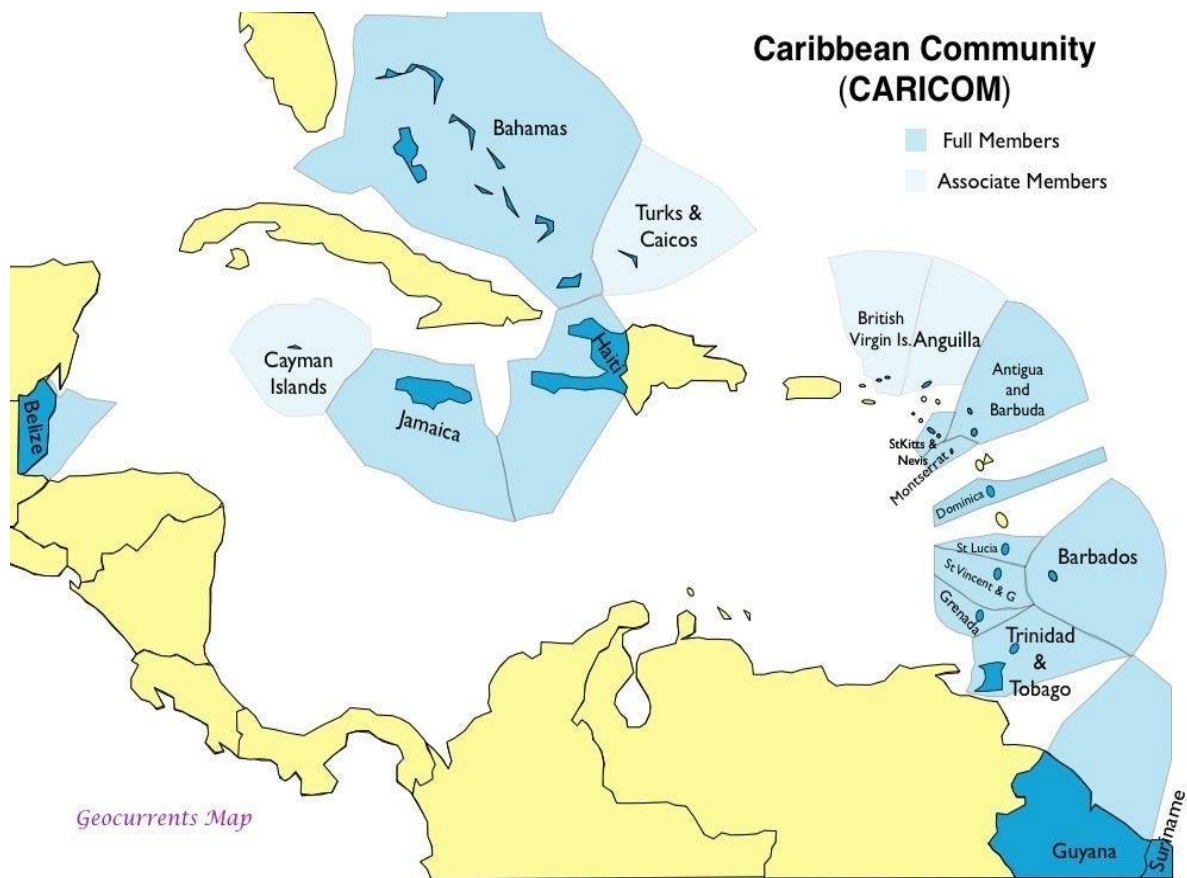


Figure 1. CARICOM Member States (Source: Civildaily, CARICOM Countries 2018)

### 2.1.2 Mission and Vision Statements

A mission statement is a short declaration of an organization's purpose. It would therefore identify the scope, what type of products and/or services offered, the target audience, and values the organization adheres to. For the CCCCC, in creating a mission statement, it was important for the public to understand the goal(s) and just how they intended on achieving such goals.

The CCCCC is operating solely with a mission statement and a slogan. Both statements help to remind the organization of its purpose and its commitment to the people of the Caribbean Region and the world.

Mission (CCCCC, Mission 2017): Through its role as a Centre of Excellence, the Centre will support the people of the Caribbean as they address the impact of climate variability and change on all aspects of economic development through the provision of timely forecasts and analyses of potentially hazardous impacts of both natural and man-induced climatic changes on the environment, and the development of special programmes which create opportunities for sustainable development

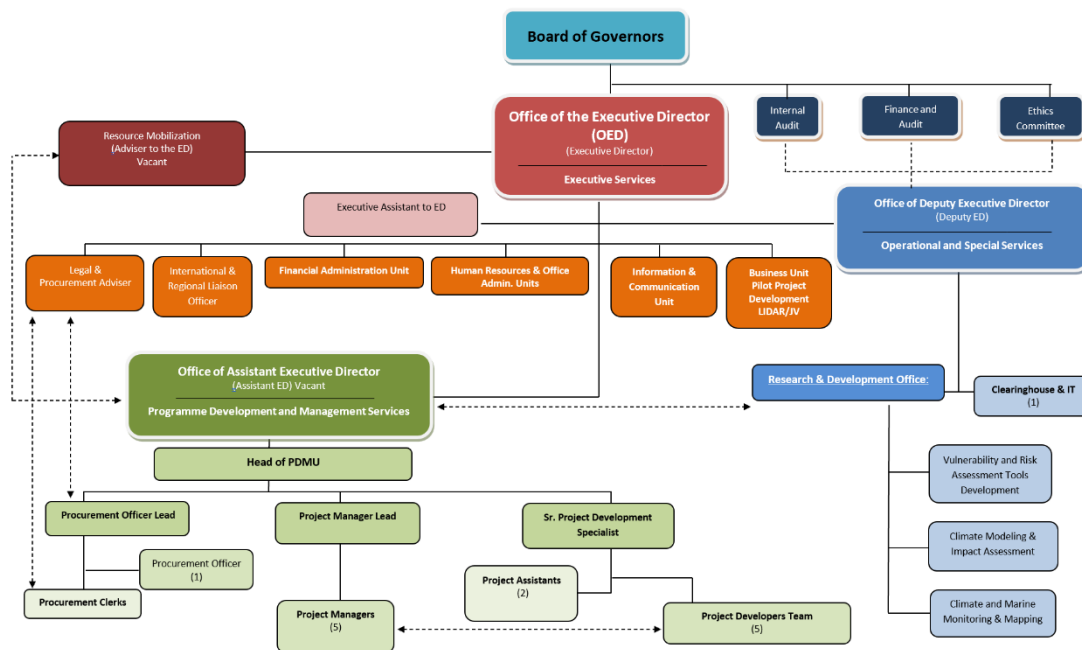
Slogan: Empowering People to Act on Climate Change

With the goal for steady improvement, the CCCCC is currently reanalyzing its operations. A consultancy firm is currently conducting an Institutional Assessment to better determine the status of the CCCCC operation and will therefore produce a Capacity Development Plan. Subsequent to these, the consultancy firm will be developing a Strategic and Implementation Plan for the CCCCC to re-establish its commitment to the Caribbean Region. This plan will also revise the Monitoring and Evaluation Manual that outlines procedures and reporting standards for the way projects are managed. It is through this medium, the CCCCC seeks to produce a relevant mission, development of a vision, highlight core values, and strategic priorities.

### **2.1.3 Organizational Structure**

The organizational structure of the CCCCC is of a functional structure. It starts with the position of the highest level of responsibility placed at the top. The employees are primarily categorized by specific skills and each of the unities are managed independently. The CCCCC is currently staffed with approximately thirty-nine (39) full-time employees. Figure 2 illustrates the organizational structure. The operations of the CCCCC's organizational structure are overseen by a Board of Directors, which

are selected by the Council of Ministers responsible for CARICOM Affairs in each Member State. The Executive Director directly reports to the Board of Directors. A Senior Management Team that assists in guiding the Executive Director is comprised of one member (Head of Unit) from each of the six (6) main units. The main units are (i) Procurement, (ii) Financial Administration, (iii) Human Resources & Office Administration, (iv) Project Development and Management.



**Figure 2. Organizational Structure (Source: Revised CCCCC Organogram Effective 1st March 2020)**

#### 2.1.4 Products Offered

The CCCCC is a service-driven organization that are separated into five main categories; (i) information for decision-making, (ii) project development and support, (iii) training, (iv) consultancy services, and (v) joint venture services (CCCCC, Services Provided by the Centre 2017).

- i. Information for decision-making includes:

- a. Information Clearinghouse - facilitates information exchange that supports stakeholders in accessing and sharing information
  - b. Climate Modelling - downscales global climate models to produces regional outputs that are useful to the Caribbean. The information is used to provide advice to governments on adaptation and mitigation to climate change
  - c. Environmental Scan – based on relevant information, the CCCCC plays an integral role in early-warning systems which allows to develop and implement adaption strategies
  - d. Lidar Surveys (currently not operational) – provides unique capabilities to conduct surveys on topography, coral reefs, benthic habitats, coastal vegetations, sandy beaches, etc.
- ii. Project Development and Support includes:
    - a. Accredited Regional Implementing Entity – as an accredited entity by the Green Climate Fund (GCF), the CCCCC can receive direct financial transfers from GCF ranging from US\$10 million to US\$50 million per project to conduct adaptation and mitigation projects and programmes.
    - b. Project Development – provides the services to the CARICOM Member States in developing concept notes and projects.
- iii. Training – develop and conduct technical training courses for organizations and management levels on climate change issues such as using climate models, assessment and monitoring of climate impacts, using tools developed by the CCCCC, proposal writing and negotiations.
  - iv. Consultancy Services – conceptualize plans, develop, implement, monitor and evaluate projects and programmes related to climate change.
  - v. Joint Venture Services - provides collaborated joint venture research and development in renewable energy projects both with the public and private sectors.

## **2.2 Project Management Concepts**

### **2.2.1 Project**

For the purpose of the Final Graduation Plan, it is essential that the author clearly articulates the meaning of a project. Using A Guide to the Project Management Body of Knowledge (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 4), it defines a project as a temporary endeavor undertaken to create a unique product, service, or result. “Temporary endeavor” as stated in the definition simply means that every project has a specific life span in which it will be implemented and completed. Projects entail a series of tasks that may be deemed simple or complex in order that it is completed to achieve a particular output and/or outcome. Therefore, projects ultimately need to be carefully planned and managed to achieve the goals that are established.

### **2.2.2 Project management**

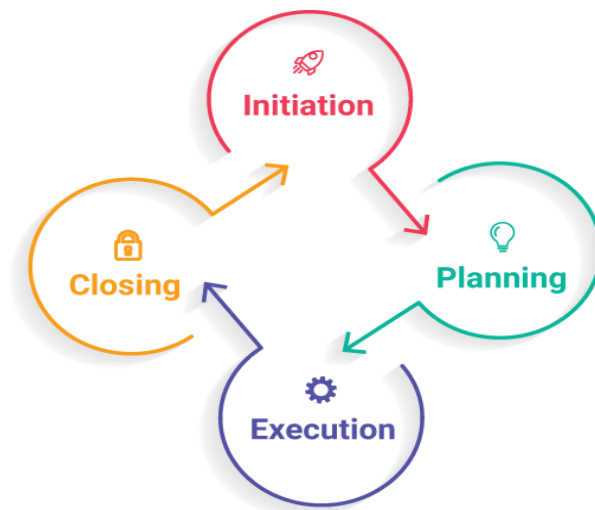
Defining what a project is, makes it simpler to understand the concept of project management. Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. (PMBOK® Guide - Sixth Edition (PMI, 2017, pp. 10). It is a method used for projects to be properly planned, monitored, controlled, and reported. It is from the above components we then build upon the concept of what project management is.

The CCCCC strives on developing and managing projects, which are the most essential services provided. Project management is important as it ensures that the project deliverables add value to the organization and provides opportunities. There should be an obvious link between the organizations’ strategic framework and the projects it selects to manage. Management provides guidance, focus, and a keen ability to identify constraints.

The development of the Final Graduation Plan will consist of identifying which project management type will be suitable for CCCCC operations.

### 2.2.3 Project Life Cycle

A project life cycle is the series of phases that a project passes through from its start to its completion. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 19). Ordinarily, a project life cycle has four distinct stages which are initiation, planning, executing, and closing. The function of these stages is to help project managers successfully guide the projects they have responsibility for from start to completion. Figure 3 illustrates the four stages of the project lifecycle.

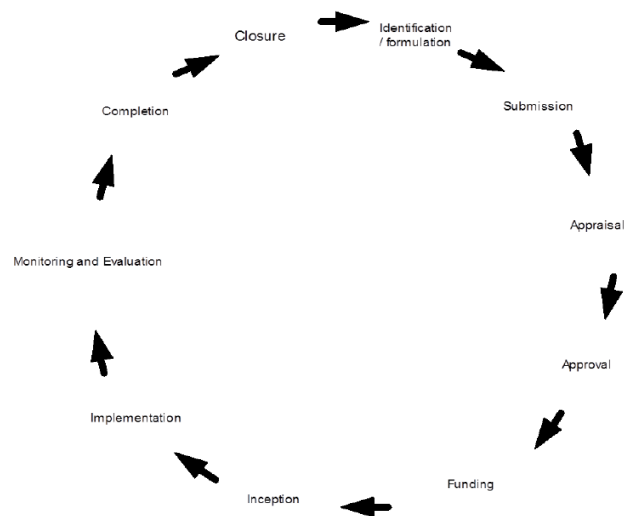


**Figure 3. Project Life Cycle (Source: Invensis Inc.)**

For the CCCCC, the project cycle consists of the several phases through which a project passes from its first conception to completion which includes; project identification and formulation; submission; appraisal; approval; funding; inception; implementation; monitoring and evaluation; completion and closure.

Each process has its own key action and process taken to complete a specific phase. The project cycle is sequential which means that the succeeding phases will only finish after the preceding phase(s) are completed. In some instances, key components such as monitoring and evaluating, and financial auditing are carried out in several phases. The project cycle serves as a feedback channel for the implementation of a complete phase or follow-up project. Figure 4 illustrates the general flow of the project cycle management at the CCCCC which also includes the development of projects.

With an already established project lifecycle, the process of developing a proposed PMO will be guided accordingly. The Final Graduation Plan aims to treat it as a project in itself, which means that it too will experience all the stages of the project lifecycle to complete the FGP.



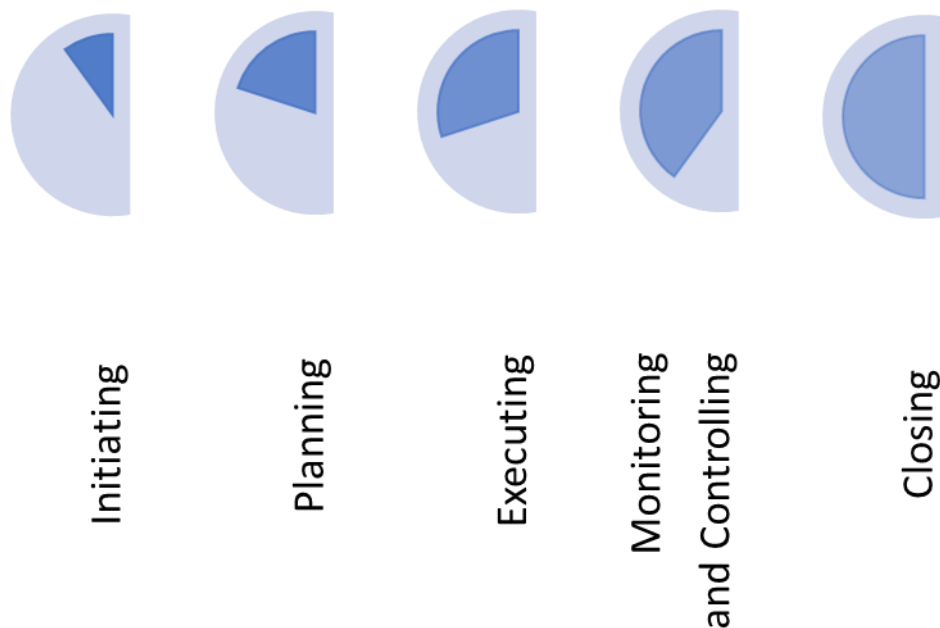
**Figure 4. General flow of the CCCCC's Project Cycle Management**

#### **2.2.4 Project Management Processes**

Project Management Processes is described as a systemic series of activities directed toward causing a result where one or more inputs will be acted upon to create one or more outputs. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 18).



The project lifecycle stages are directly linked to forty-nine (49) project management processes. The processes are so divided into the ten (10) knowledge areas. These processes are further categorized into five (5) groups known as the project management process groups which include initiating, planning, executing, monitoring and controlling, and closing. Figure 5 shows the project management processes as described by the (PMBOK® Guide) - Sixth Edition (PMI, 2017).



**Figure 5. The Project Management Processes**

All projects experience different stages of the process groups. It is expected that during the lifecycle of this FGP, all process groups will be experienced and documented. It is worthy to note that each group is dependent on its predecessors and all knowledge areas will be demonstrated from initiating (the formulation of the Project Charter) to the closing (proposing the PMO).

### **2.2.5 Project Management Knowledge Areas**

The PMBOK Guide defines the Knowledge Areas as an identified area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools, and techniques. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 23). The ten (10) knowledge areas take place in any of the five (5) process groups mentioned earlier and are essential for any project management system to be effective.

For the succession of this FGP, it is essential to demonstrate the applicability of all Knowledge Areas. During the course of the Master's Degree in Project Management, all Knowledge Areas were emphasized as follows:

1. Project Integration Management
2. Project Scope Management
3. Project Schedule Management
4. Project Cost Management
5. Project Quality Management
6. Project Human Resource Management
7. Project Communication Management
8. Project Risk Management
9. Project Procurement Management
10. Project Stakeholder Management

**Project Integration Management** includes the processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 69). It essentially encompasses the five (5) project management process groups to manage resources, meet stakeholders' requirements, and successfully deliver a project. The integration starts with the processes of developing the project charter and project management plan, direct

and manage project work, manage project knowledge, monitor and control the project work, perform integrated process control, and lastly, close the project.

**Project Scope Management** is the processes to ensure that the project includes all the work required, and only the work required, to complete the project successfully. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 129). This serves as a guide in the development of the FGP and contributes to the formulation of the project scope statement and the work breakdown structure (WBS). If the scope is not properly defined, there is bound for issues to arise that would impact the project negatively.

**Project Schedule Management** includes the processes required to manage the timely completion of the project. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 173). Analyzing the WBS created in the Scope Management stage, durations are assigned for each task completion. The dependency of tasks must be considered to determine its critical path. In this stage, monitoring and controlling is very much essential to meet specific deadlines.

**Project Cost Management** is the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 231). Here, a plan cost management is developed, costs are estimated, a budget is then determined, and a plan on how to control cost by monitoring is performed.

**Project Quality Management** includes processes for incorporating the organization's quality policy regarding planning, managing, and controlling project and product quality requirements in order to meet stakeholders' objectives. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 271). The success of projects is dependent on the quality of goods and services produced; therefore, quality must be

met to determine its completion. Plan quality management, managing quality, and controlling quality are all performed in this stage.

**Project Resource Management** includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 307). It is required that the right resources are identified and are at the disposal of the project manager to carry out the roles throughout the project.

**Project Communications Management** is the processes necessary to ensure that the information needs of the project and its stakeholders are met through the development of artifacts and implementation of activities designed to achieve effective information exchange. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 359). The mode of communication must be agreed between the project manager and all stakeholders involved. A communication plan that outlines who will be communicating, the purpose, how often, and in what format is vital to establish to prevent misconstrued communication.

**Project Risk Management** is the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 395). The key elements to address risks are thinking of potential scenarios of issues to identify the risk, brainstorm, evaluate, come up with possible solutions, and monitor closely to help minimize the impacts on the project.

**Project Procurement Management** is the processes necessary to purchase or acquire products, services, or results needed from outside the project team. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 459). Proper documentation on

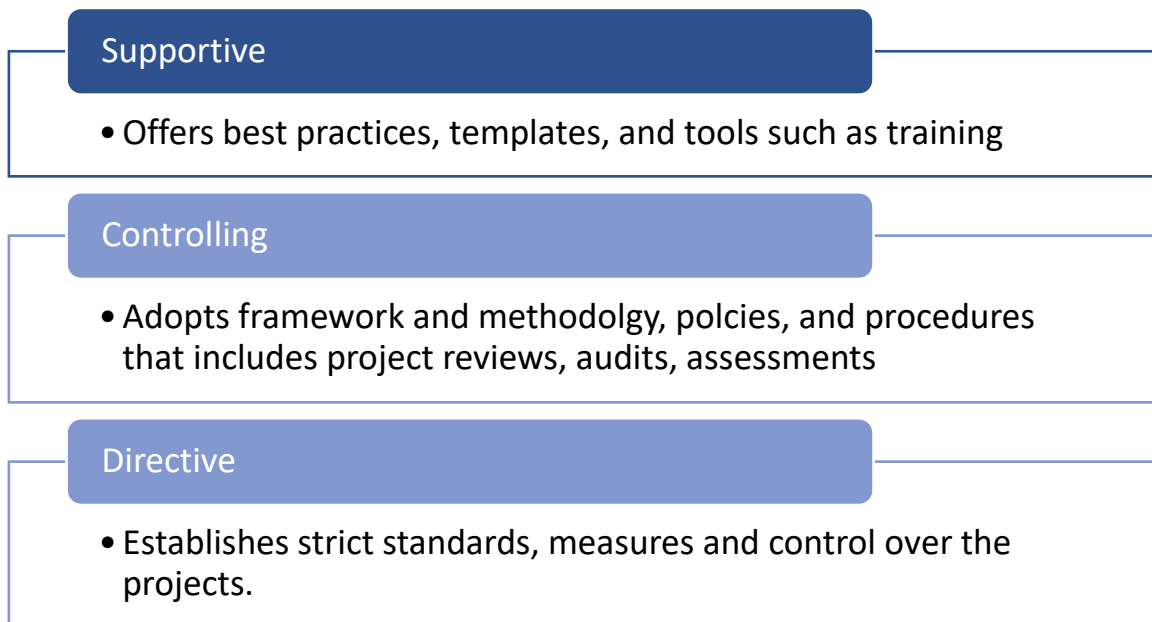
purchasing processes should already be implemented to follow throughout the duration of the project.

**Project Stakeholder Management** includes the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 503). Stakeholders are engaged throughout the entire duration of the project and should be periodically updated on any progress or setbacks that occur.

## **2.3 Other applicable theory/concepts related to the project topic and context**

### **2.3.1 Project Management Office**

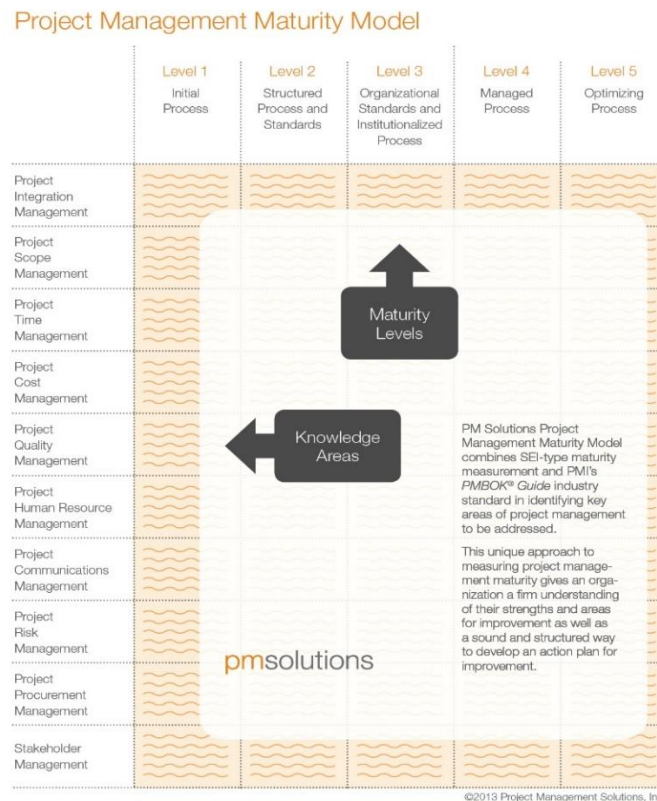
A Project Management Office is a management structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. (PMBOK® Guide) - Sixth Edition (PMI, 2017, pp. 48). There are three (3) structure types of PMO, illustrated in Figure 6.



**Figure 6. Types of PMO**

### **2.3.2 Project Management Maturity**

Project Management Maturity is referred to as the progressive level of acceptance and implementation of project management as a business practice. (Project Management Academy). The purpose of analyzing an organization to determine its maturity level is a creative tool and technique to assess the project management success by identifying deficiencies and rationalize possible solutions to improve the aspects of project management. The importance of maturity is to understand why success occurs for repetition and preventing common issues. It is steps that an organization is willing to take to progress. After identifying improvements, the project management maturity model should provide an outline demonstrating necessary steps of improvement. Figure 7 shows the knowledge areas and the levels of maturity.



**Figure 7. Project Management Maturity Model structure (Source: Project Management Solutions, 2012)**

Some common maturity models are as follows:

1. Capability Maturity Model (CMM)
2. Portfolio, Program & Project Management Model (P3M3)
3. Organizational Project Management Maturity Model (OPM3)

### 2.3.2.1 Capability Maturity Model (CMM)

Capability Maturity Model is a methodology used to develop and refine an organizations software development process. It was founded by the Software Engineering Institute (SEI), a research and development center sponsored by the U.S. Department of Defense (DoD) in 1984 with the purpose of addressing issues and advance the methodologies used. (Rouse, 2007).

This model speaks of five levels of maturity and their characteristics:

1. Initial – processes are chaotic, undocumented, changes often, and are reactive. Success may be dependent on individual efforts.
2. Managed – better tracks cost, schedule, and progress which leads to correct estimates for project schedules and plans.
3. Defined – processes follow documented standards through the development process, testing, and maintenance. This reduces the level of dependency on a few individuals.
4. Quantitative managed - processes can be controlled by management
5. Optimizing – processes are constantly improving

#### **2.3.2.2 Portfolio, Program & Project Management Maturity Model (P3M3)**

Portfolio, Program & Project Management Model (P3M3) is a methodology owned and published by the UK Cabinet Office which covers project, program, and portfolio management. It is a framework for the evaluation of the maturity and performance of assets of an organization. It achieves this by breaking down the complexity of the P3 to improve. Similar to the CMM, it utilizes five (5) levels of processes:

1. Awareness – processes are chaotic
2. Repeatable – processes are used repeatedly while documenting current practices
3. Defined – processes are defined as standard business processes while documenting the desirable ones
4. Managed – processes that are manageable and measurable occurs
5. Optimized – processes are deliberately improving

#### **2.3.2.3 Organizational Project Management Maturity Model (OPM3)**



Organizational Project Management Maturity Model (OPM3) is a standard developed under the guidance of the Project Management Institute standard much like the PMBOK® Guide that was started in 1998 by PMI. There are four (4) levels:

1. Standardize – processes are adopted with defined structure
2. Measure – processes use data to evaluate the performance
3. Control – processes used control plans to develop certain measures
4. Continuously improve – processes are improving

After carefully analyzing the data from the literature review, it will be determined which maturity model is suitable to use for the FGP.

#### **2.3.2.4 Lean Six Sigma Maturity Model**

Six Sigma is an organized and systematic method for strategic process improvement and new product and service development that relies on statistical methods and the scientific method to make dramatic reductions in customer-defined defect rates.” This systematic method is the define, measure, analyze, improve, and control (DMAIC) structure (De Mast and Lokkerbol 2012).

According to (Lameijer, De Mast, & Does, 2017), there are several success factors of the Six Sigma; (i) management commitment and support for projects, training, and prioritization of projects; (ii) involvement of improvement specialists in projects; (iii) structured approaches to project execution; (iv) customer focus in project objectives; (v) usage of tools and techniques; (vi) links to business strategy; (vii) focus on metrics; (viii) links to human resource management; and (viii) data-based decision making

Under the Six Sigma Maturity Model, organizations experience five levels of development:

**Level 1:** Initiate (Launch) – the organization focuses on training and launching initial projects.

**Level 2:** Develop (Early Success) – the initial project yields successful results. Practices are repeatable.

**Level 3:** Standardize (Scale and Replication) – other parts of the organization realize success and broader projects are launched. Some common processes and approaches are now used.

**Level 4:** Optimize (Institutionalization) – projects are yielding broad-based financial impact. Success is measured and adaptive approach are taken.

**Level 5:** Innovate (Lean Culture Transformation) – the organization experiences sustained success and can now continuously improving practices.

There are five frameworks identified by a group of Subject Matter Experts (SMEs) in the PMI's Pulse of the Profession: PMO Frameworks "that best match their actual PMO and responded to questions on form, function, capabilities and performance related specifically to that PMO." (©2013 Project Management Institute, Inc., 2013).

**Organizational Unit PMO/Business Unit PMO/Divisional PMO/Departmental PMO**

Provides project-related services to support a business unit or division within an organization including, but not limited to, portfolio management, governance, operational project support and human resources utilization.

**Project Specific PMO/Project Office/Program Office**

Provides project-related services as a temporary entity established to support a specific project or program. May include supporting data management, coordination

of governance and reporting, and administrative activities to support the project or program team.

### **Project Support/Services/Controls Office or PMO**

Provides enabling processes to continuously support management of project, program or portfolio work throughout the organization. Uses the governance, processes, practices, and tools established by the organization and provides administrative support for delivery of the project, program or portfolio work within its domain.

### **Enterprise/Organization-wide/Strategic/Corporate/Portfolio/Global PMO**

The highest-level PMO in organizations having one, this PMO is often responsible for alignment of project and program work to corporate strategy, establishing and ensuring appropriate enterprise governance, and performing portfolio management functions to ensure strategy alignment and benefits realization.

### **Center of Excellence/Center of Competency**

Supports project work by equipping the organization with methodologies, standards and tools to enable project managers to better deliver projects. Increases the capability of the organization through good practices and a central point of contact for project managers.

Initially, it is observed that the PMO framework that would best suit the CCCCC is that of the Centre of Excellence/Center of Competency as the CCCCC strives on the development and management of project, programs, and portfolios. This will provide the necessary support of developing and establishing methodologies, standards, tools, and techniques that would assist its project managers in delivering efficient projects. The project managers would benefit greatly from relevant and regular trainings, mentoring, and continuous capacity development.

## METHODOLOGICAL FRAMEWORK

### 3.1 Information Sources

Undoubtedly, there are numerous definitions of "information sources". Information is a collection of factual knowledge about something while the source is a point or place at which something is invented or provided. (©2020 Merriam-Webster, Incorporated). It is knowledge gained through research, any form of communication, or by instructions and studying. To satisfy specific characteristics of the purpose of the FGP, it can be deduced that information source is a collection of factual knowledge one may obtain from a person, place or even thing. Generally, there are three types of information sources categorized into the primary, secondary, and tertiary sources. (Woodley, 2020) The FGP is focusing in primary and secondary information sources.

#### 3.1.1 Primary Sources

Primary sources provide a first-hand account of an event or time period and are considered to be authoritative. They represent original thinking, reports on discoveries or events, or they can share new information. (UNSW Library, 2020). There is an array of sources considered to be primary such as correspondence, original documents, biographies, manuscripts, interviews, speeches, government documents, articles, reporting, newspapers, etc.

The primary sources that will be used for this FGP are reports, correspondence, interviews as needed, and notes curated during the course of the Masters in Project Management Program (MPM).

### **3.1.2 Secondary Sources**

Secondary sources offer an analysis, interpretation or a restatement of primary sources and are considered to be persuasive. (UNSW Library, 2020). These sources may be journaled articles, textbooks, dictionaries, dissertations, newspaper editorials, etc.

For the development of the FGP, secondary sources such as the PMBOK® Guide, library databases (the organizations' clearinghouse), and the PMI database will be used. Chart 1 represents the collection of primary and secondary sources used for each of the FGP specific objectives.

**Chart 1. Information Sources (Source: Author)**

Objectives	Information sources	
	Primary	Secondary
1.5.1 To evaluate CCCCC's maturity level to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change.	CCCCC's organizational structure and operational processes and procedures	Online literature such as CCCCC clearinghouse and other academic journals on project management tools and techniques.
1.5.2 To comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC.	Necessary interviews with key CCCCC personnel (Project Lead) and stakeholders.	Online literature review relating to the forms of PMO, relative documents (policies and templates).  A Guide to Project Management Body of Knowledge PMBOK® Guide
1.5.3 To propose the PMO's functions and responsibilities to determine its effectiveness.	Interview with Project Lead, possibly other Project Management personnel	Online literature, Project Management websites, articles, academic journals.  A Guide to Project Management Body of

		Knowledge PMBOK® Guide
1.5.4 To propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures needed to monitor and enhance the CCCCC project delivery performance and identify an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions.	Interview with Project Lead, possibly other Project Management personnel	Online literature, Project Management websites, articles, academic journals. A Guide to Project Management Body of Knowledge PMBOK® Guide
1.5.5 To determine a set of KPIs to measure the performance of the PMO.	Interview with Project Lead, possibly other Project Management personnel	PMO books, journals, online articles, websites

### 3.2 Research Methods

Research is used to gain knowledge, be or keep informed on particular actions on things both known and unknown. It helps to build on our understanding of various things that may interest us, things we may want to find solutions to issues on that would provide opportunities which will lead to better decision-making. Research methods is a particular way of studying something in order to discover new information about it or understand it better. (© Cambridge University Press).

The development of the FGP will bring awareness to the levels in which project management is applied and the methods used. The revision of the materials from information sources and the various research methods used will facilitate in determining the project management maturity level of the CCCCC.

### 3.2.1 Analytical method

Analytical Research is a specific type of research that involves critical thinking skills and the evaluation of facts and information relative to the research being conducted. (Ask Media Group, LLC, 2020). Analytical techniques are no stranger to project management as it is the used of various techniques to evaluate, analyze, or forecast potential outcomes based on possible variations of a project or environmental variables and their relationships with other variables. (*PMBOK® Guide*) - Sixth Edition.

### 3.2.2 Observational method

Observations are a type of ethnographic data collection method where researchers visit or participate in a location or with a group of people to better understand people, environments, interactions, behaviors, or other phenomena within the space. (Newbold, 2018).

### 3.2.3 Unstructured Interview method

Unstructured interviews do not use any set questions, instead, the interviewer asks open-ended questions based on a specific research topic, and will try to let the interview flow like a natural conversation. (Mcleod, 1970).

**Chart 2. Research Methods (Source: Author)**

Objectives	Research methods		
		Analytical	Observational



<p>1.5.1 To evaluate CCCCC's maturity level to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change.</p>	<p>Will be used to assess the current maturity status of the organization by using information from sources identified in Chart 1.</p>	<p>N/A</p>	<p>N/A</p>
<p>1.5.2 To comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC.</p>	<p>Will be used to study the roles and responsibility of the current staffing structure at the organization.</p>	<p>N/A</p>	<p>N/A</p>
<p>1.5.3 To propose the PMO's functions and responsibilities to</p>	<p>Will encourages critical thinking to determine the</p>	<p>N/A</p>	<p>Will be used to better understand the</p>

<p>determine its effectiveness.</p>	<p>effectiveness of the PMO structure. Gathering information on the forms of PMO to determine the suitability of the organizations' purpose.</p>		<p>organization structure, roles, and responsibility.</p>
<p>1.5.4 To propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures needed to monitor and enhance the CCCCC project delivery performance and identify an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions.</p>	<p>Will be used to evaluate the findings of the literature reviews conducted in similar organizations. This will assist with decision-making to focus on the most important functions of the PMO.</p>		<p>Will be used to better understand the roles and responsibility of the current staffing structure to determine the placement of a PMO at the CCCCC.</p>

1.5.5 To determine a set of KPIs to measure the performance of the PMO.	Will be used to guide the development of the measures needed to implement the proposed PMO plan.	Will be used to capture responses gathered from instruments created to assess common responses and where improvements may be achieved. An understanding of which form of PMO is aligned with the views of key stakeholders.	
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### 3.3 Tools

Tools are something tangible, such as a template or software program, used in performing an activity to produce a product or result. (*PMBOK® Guide*) - Sixth Edition.

For the Final Graduation Plan, the following tools that will be used and are described:

1.6.1 Expert Judgement - Judgment provided based upon expertise in an application area, knowledge area, discipline, industry, etc., as appropriate for the activity being performed. Such expertise may be provided by any group

or person with specialized education, knowledge, skill, experience, or training. (*PMBOK® Guide*) - Sixth Edition.

1.6.2 Data Gathering (Interviews) - Techniques used to collect data and information from a variety of sources. (*PMBOK® Guide*) - Sixth Edition.

1.6.3 Meetings (Interactive communication) - are held with key stakeholders to identify the project objectives, success criteria, key deliverables, high-level requirements, summary milestones, and other summary information. (*PMBOK® Guide*) - Sixth Edition. (PMI 2017, p. 80)

1.6.4 Observation - is a technique that provides a way of viewing individuals—usually team members—in their own environment doing their tasks as well as carrying processes that are necessary for completing the task/s. (Alby, 2020)

1.6.5. Organization Project Management Maturity Model (OPM3) - is the level of the ability of the organization to deliver desired outcomes in a controlled, reliable, as well as predictable manner. (Alby, 2020)

### Chart 3. Tools (Source: Author)

Objectives	Tools
1.5.1 To evaluate CCCCC's maturity level to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change.	Organization Project Management Maturity Model (OPM3)

1.5.2 To comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC.	Meeting (Interactive communication) Expert Judgement Observation
1.5.3 To propose the PMO's functions and responsibilities to determine its effectiveness.	Meeting (Interactive communication) Expert Judgement Data Gathering (Interviews) PMO Templates
1.5.4 To propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures needed to monitor and enhance the CCCCC project delivery performance and identify an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions.	Meeting (Interactive communication) Expert Judgement Data Gathering (Interviews)
1.5.5 To determine a set of KPIs to measure the performance of the PMO.	Data Gathering (Interviews) PMO Templates

### 3.4 Assumptions and Constraints

Assumptions are a factor in the planning process that is considered to be true, real, or certain, without proof or demonstration. (*PMBOK® Guide*) - Sixth Edition. pp. 699) while Constraints are a limiting factor that affects the execution of a project, program, portfolio, or process. (*PMBOK® Guide*) - Sixth Edition. pp. 701).

During the lifecycle of a project, there are many instances where assumptions are made, particularly with time, budget, scope, resources, quality, and risk. These assumptions may then pose constraints that may affect the successful execution of the project. It is, therefore, important to analyze assumptions while identifying constraints throughout the project lifecycle. This will minimize obstacles that will prevent a successful project.

As it relates to the FGP, the assumptions and constraints associated with each specific objective are represented in Chart 4.

**Chart 4. Assumptions and Constraints (Source: Author)**

Objectives	Assumptions	Constraints
1.5.1 To evaluate CCCCC's maturity level to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change.	The organization currently needs to improve its capacity in executing projects, hence the suggestion of a PMO. A preliminary observation will determine the maturity level of the organization.	Concluding which of the model will yield the best results that will determine the maturity level of the organization.
1.5.2 To comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC.	Creating and implementing a PMO will boost efficiency and effectiveness in the execution of projects at the organization.	The Management Team may be reluctant to accept the proposed idea of a PMO.

Objectives	Assumptions	Constraints
1.5.3 To propose the PMO's functions and responsibilities to determine its effectiveness.	The proposed PMO may be fairly large considering the duties of the organization to serve the entire Caribbean Region.	The scope of the project may be scaled down to complete in time.
1.5.4 To propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures needed to monitor and enhance the CCCCC project delivery performance and identify an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions.	The proposed PMO will be equipped with all personnel needed to be fully adapted and operational in a short time.	The Management Team may be reluctant to accept the proposed idea of a PMO.
1.5.5 To determine a set of KPIs to measure the performance of the PMO.	Creating a suitable methodology for the Implementation Plan to yield a high rate of return on investment.	The scope of the project may be scaled down to complete in time.

### 3.5 Deliverables

A deliverable is any unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project. (*PMBOK® Guide*) - Sixth Edition. pg. 4). Deliverables vary among projects according

to the specifications of the project and what is a requirement by the stakeholders involved. It can be deduced that the outputs garnered from the inputs of a project can be categorized as the deliverable. The deliverable would then serve to be evidence of the project completion.

#### **Chart 5. Deliverables (Source: Author)**

<b>Objectives</b>	<b>Deliverables</b>
1.5.1 To evaluate CCCCC's maturity level to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change.	Produce a report that represents the resulting level of maturity of the organization.
1.5.2 To comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC.	Produce a report on the appropriately determined PMO for the organization.
1.5.3 To propose the PMO's functions and responsibilities to determine its effectiveness.	Produce a chart and report that represents the implantation of the proposed PMO.
1.5.4 To propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures needed to monitor and enhance the CCCCC project delivery performance and identify	Produce an updated organizational chart and report to showcase the most suitable position for the



an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions.	proposed PMO in the organization.
1.5.5 To determine a set of KPIs to measure the performance of the PMO.	Produce a report that includes the methodology as well as proper tools and techniques and templates to use.

## RESULTS

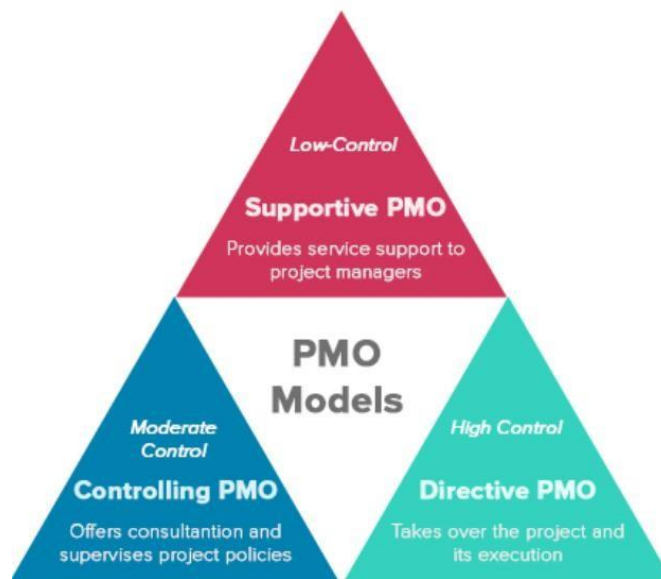
For this research, using the OPM3 framework methodology as the foundation, a questionnaire was developed and issued to key personnel at the CCCCC to determine its project management capabilities and measure the maturity against best practices. There are roughly over five hundred (500) questions relating to projects, programmes, and portfolios. A sample of seventy-two (72) questions relating to the 10 knowledge areas was used for the creation of the questionnaire. The project management maturity was assessed and determined the quantity in the percentage of the four (4) processes (standardized, measure, control and improve) featured in this model.

Eight (8) members of staff comprising of the Project Management Head, the Project Development Head, the Project Manager Lead, (4) Project Managers, and one (1) Procurement Officer agreed to participate in the data gathering. Persons were selected based on the level of involvement in managing projects and programmes and the duration of employment at the CCCCC that would determine the knowledge needed to successfully complete this process.

Focusing on the four processes under the Stages Improvement Processes (SMCI), the results of the maturity assessment demonstrated that the organization scored 38% as it relates to the standardization process, as documenting policies are high, but falls short in training of personnel and institutionalize structures that promote consistence in work methods. In the measurement process, a score of 47% was acquired and a control scored 41% was obtained. The organization's maturity level in the improvement process scored 36% demonstrating a weakness compared to the previous processes. The results of the assessment can be found in Appendix 5 of this document.

The questions selected for the purpose of this questionnaire, pertaining to all projects, programmes, and portfolios, did not indicate the specific knowledge areas targeted. Following the conclusion of the assessment, the results demonstrated strengths, weaknesses, and improvement opportunities of the CCCCC, which in turn highlighted the need for the establishment of a PMO.

A review of the various forms of PMO is necessary to define and select the most suitable PMO as per the second FGP objective. As previously mentioned, there are three (3) basic PMO forms: Supporting, Controlling, and Directive, all of which were examined. Selecting the PMO best suited for the CCCCC were based on two (2) key characteristics, the PMO's responsibility as a governance and standardization resource body and the range of PMO authority and control the organization possesses.



**Figure 8. Three Types of PMO (Source: PMBOK Guide)**

In an open discussion with the eight (8) staff members, given the characteristics of each PMO type, everyone was asked to identify their preference. During deliberation, it was concluded that majority of the members preferred a PMO with a more supportive approach as it would provide guidance to the project managers and benefits project governance.

The roles and responsibilities of the selected PMO must be defined to reinforce the position and potential influence of the PMO in accordance with the OPM3 approach. This activity will serve as a catalyst and illustrate the PMO's autonomy to raise awareness within the organization. Consequently, though defining the PMO's roles and responsibilities is a crucial component in the development of this FGP, it is also important to implement and practice the structures and processes outlined in this study. This offers a suitable process to the next objective, which was to determine an implementation plan for the CCCCCs PMO.

#### **4.1. Evaluate the Maturity Level of the CCCCC**

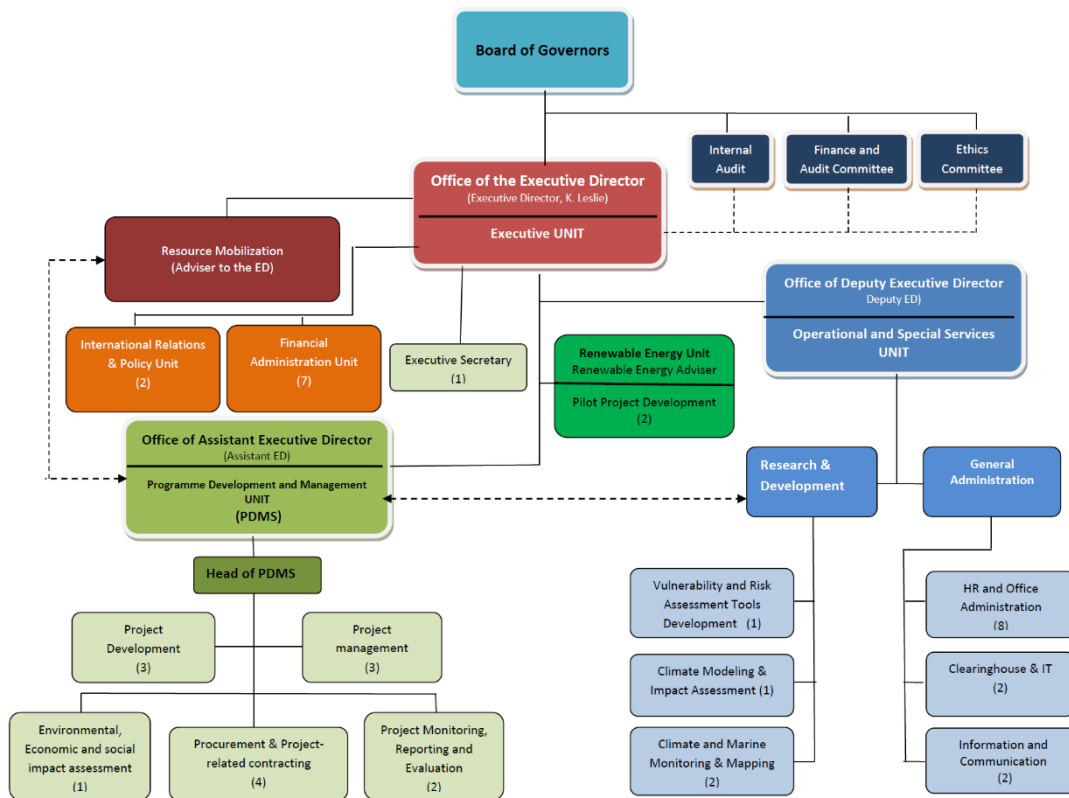
Climate Change affects countries across the globe, all at different levels depending on the state of the economy and available resources and the action that particular country takes to mitigate and or adapt to the dreaded effects. Warmer temperatures, increasing frequency and intensity of extreme storms, reduction in precipitation and/or increase in heavy precipitation, sea level rise, a change in terrestrial and marine biodiversity, increase in forest fires, and soil degradation are amount the few things most Caribbean nations expereince from climate change.

It is imperative that all stakeholders (government, private sectors, communities) in the Caribbean is able to properly formulate effective responses that will help to reduce vulnerability and increase resilience. There is an urgent need for technical

and financial assistance to assist countries in the region focus on improving their opportunity to build more practical and effective ways of reducing vulnerability.

Established in 2005, the Caribbean Community Climate Change Centre is responsible for developing a comprehensive plan that includes priority areas with ways for implementing strategic elements, assign responsibility at the national and regional levels, and develop a monitoring and evaluating system. The CCCCC engages closely with the Caribbean countries and multiple funding agencies to secure financial assistance that would stimulate initiatives in strengthening their capacity in combating the effects of climate change.

Since its inception, the CCCCC has grown, necessitating changes to its administrative structure in an effort to redesign and improve its approach to management and operation. As the effects of climate change grew, so has the demand for the services provided by the CCCCC. Figure 2 depicts a comparison in an effort to address the need for an increased staffing capacity to best service the Caribbean Region's communities.



**Figure 9. Organizational Structure (Source: CCCCC Organogram July 2016)**

As previously stated, the CCCCC's primary and sole source of income is based on the percentage of management fees generated by the types and number of projects it manages. As a result, it is detrimental to the CCCCC's survival to devise methods for appropriately sustaining its operations while serving the communities. The CCCCC recognized the need to acquire methods that would set them apart from the competition as the number of organizations seeking funding to combat the effects of climate change increased. In an effort to become financially sustainable, the Green Climate Fund (GCF) granted the CCCCC accreditation in 2015 to serve as a Regional Direct Access Entity, allowing it to access financing of up to US\$50 million per projects/programmes. Initiatives like this one have made the CCCCC more

adaptive in its collaboration with organizations throughout the Region. The CCCCC provides environmental services and climate modelling, as well as a revenue-generating project known as the LIDAR system (not yet operational). According (Land Trust Alliance, 2019), LIDAR (Light Detection and Ranging) is a remote sensing method used to examine the surface of the Earth. Coastal Lidar reflects elevation information, which is a primary data consideration for management activities in the coastal zone, including conservation. Elevation data can be examined in relation to other factors and climate change stressors, such as sea level rise, storm inundation, lake-level drops, or drought across the landscape and seascape, illuminating critical areas that may need to be protected or conserved.

The Project Development and Management Unit plays an important role in the development and implementation of projects to help the CCCCC succeed. With the exception of a six-weeks training in the Introduction to Project Management course, the staff does not receive annual training to keep them up to date with the ever-changing policies and procedures. Participation is frequently voluntary and is contingent on the availability of resources. Nonetheless, project management training is not a requirement, but rather, is a skill that is learned through experience.

Unfortunately, despite the organizations' significant growth over the years, its annual budgetary allocations have not increased to keep up with the rising demand. As a result, it has faced significant challenges in carrying out its mandate due to a lack of resources. Thus, project development, management, and execution at the CCCCC have largely been viewed as a means of obtaining the necessary resources, training, and equipment that is urgently requires not only to carry out its domestic and regulatory functions, but also to carry out its environmental obligations as outlined in international agreements.

For several years, the CCCCC has successfully attracted, managed, and implemented numerous projects varying in sizes. Since GCF accreditation, they have become the primary funder as of March 2020, and the CCCCC has managed approximately 56 projects, 36 of which have been implemented or are in the planning phase. The total value of projects exceeds US\$260 million. The average project funding value more than doubled from US\$2.8 million to US\$5.7 million. Despite the increased funding, revenue generation is difficult because it is heavily dependent on the CCCCC's implementation rate that is slow. As a result, a maturity assessment was carried out to determine its project management maturity. Given the CCCCC's programmatic organizational structure, the organizational project management maturity model was considered most appropriate.

Significant time was spent exploring the model in order to gain a thorough understanding of the OPM3 contents as well as its application. The assessment would be carried out in the following phase. The OPM3 Assessment consists of five hundred (500) questions, however, the survey administered to participants was reduced to seventy-two (72) questions that cover all projects, programmes, and portfolios managed by the CCCCC. The questionnaire comprised all phases of project management (Initiation, Planning, Execution, Measurement & Control, and Closing) as prescribed by the PMBOK, 6th edition, as well as ten knowledge areas, as shown in Chart 6.

**Chart 6. Distribution of Survey Questions**

Knowledge Areas	Process Groups				
	Initiating	Planning	Executing	Monitoring & Control	Closing
Integration			4		4
Scope		8			
Schedule		4			
Cost		8			
Quality		4	4	4	



Resource		4	4		
Communication			4		
Risk		4		4	
Procurement			4		
Stakeholder	4			4	

Participants were familiarized with the terms and concepts used during the relevant interviews to ensure that content was understood before proceeding. As a prerequisite to a targeted improvement effort, key stakeholders indicated a willingness to conduct a maturity assessment. The maturity assessment would require a step-by-step evaluation of its processes and organizational structure. The findings would allow the administration to assess the organization's strengths and weaknesses, as well as its potential for future growth.

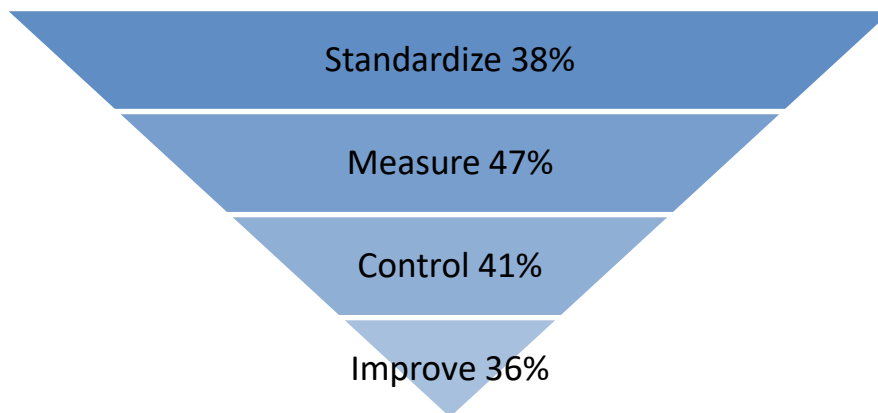
The architecture of the OPM 3, as highlighted in the theoretical framework, consists of the following:

- Best practices for organizational project management
- The integral capabilities required for the existence or achievement of best practices
- Measurable outcomes indicating the existence of each relevant capabilities
- Key Performance Indicators (KPIs) used to measure each outcome
- A model context that includes the OPM process as well as the stages of process improvement. The stages are Standardize, Measure, Control, Improvement (SMCI).

The OPM3 model, according to Fahrenkrog et al. (2003), uses the concept of these stages to include a blueprint that allows the organization to see which best practices are directly correlated with organizational project management maturity, where it falls on the maturity spectrum, and how it can begin its organizational change. The OPM3

uses the stages of process improvement as well as builds on the process framework of project management.

The evaluation based on the survey results revealed that the CCCCC is classified at the first stage of process improvement, as shown in Figure 9. This was further reinforced by the findings of a discussion with the participants stating they followed and adopted project management policies and procedures as a condition of the project donors. It is apparent that the donors' policies and procedures provide the blueprint for the project phases and knowledge areas.



**Figure 10. Scores of the CCCCC Project Maturity Level**

## **4.2. Analysis of the Project Management Offices**

Upon review of the information obtained and reviewed from the PMBOK Guide and research via the internet, there are three types of PMO under review which varies in degree of influences, authority, and control.

### **4.2.1 Supportive PMO**

Supportive PMO's primary function is to provide on-demand expertise to the organization through templates, content, best practices, and data sharing from other

projects. This form of PMO is ideal for organizations or businesses that have successfully completed projects but lack strong control mechanisms and need additional oversight. This PMO has a low level of control. (Reiling, J. 2014).

#### **4.2.2 Controlling PMO**

Controlling PMO's provides compliance through various means and support by adopting specific project management framework, methodologies, templates, forms, tools, and PMO controlled set of rules. It ensures conformance to governance among others. The degree of control from this type of PMO is moderate. (Reiling, J. 2014).

#### **4.2.3 Directive PMO**

Directive PMO's may demonstrate the highest level of control in comparison to Supportive and Controlling PMO's. This PMO fundamentally "takes over" the Project by providing Project management experience and resources to manage projects. As the organizations undertake projects, the PMO assigns a professional Project manager for each of the projects, creating a consistency of reporting from each project manager back to the directive PMO. By this means, a higher level of professionalism is implemented with each project. This type of PMO is more effective for larger organizations that run various projects concurrently. (Reiling, J. 2014).

Analyzing each type of PMO, it is understood that they all have individual purpose and effect depending on the type of organization, structure, culture, and, most importantly, the goals for the overall success of that organization. To identify and propose a suitable PMO, it is necessary for an organization to be carefully defined, studied and understood. Based on the responses from the participants of the survey, a PMO is required. The structure and culture observed at the CCCCC is of a hybrid of the Supportive and Controlling PMO's.

The results of the maturity assessment and the survey responses conveyed that knowledge sharing is a major issue that affects projects and programmes success.

The Project Development and Management Unit revealed shortcomings in integrating management such as aligning deliverables, tracking project life cycles, and generating and implementing appropriate data to make integral decisions, among other things. The challenges resulting from a lack of information sharing highlights a gap within the knowledge areas. Participants emphasized that knowledge sharing was unilateral, and contact was untimely from a bottom-up perspective. Most of the participants expressed the need for project integration. The findings of this study showed that there is a need for improved communication between the project developers and the project managers, as managers are not approached to participate in the early stage of project development. This problem leads to project overlaps and, in some cases, negligence. These all contributed to increased risks which led to challenges to achieve project objects.

The Project Developers were all in separate offices, but recently relocated to a space where they were able to all share the same space to improve connectivity. Unlike the Project Developers, the Project Managers are scattered in multiple offices which proves it difficult for information sharing. Many projects require additional manpower during the project life cycle to meet the demands of successfully completing each project. The CCCCC tries to use some of the employees on board, such as the Procurement Officer, Administrative Assistant, Finance Officer, as a cost saving mechanism, which causes the officers to become overwhelmed. The building is not designed to handle a rise in consultants that are ultimately observed as permanent employees. Participants agreed that establishing a PMO would aid in project and program continuity by allowing resource sharing around the unit rather than just within a particular project or program.

Since project and programme funding comes from a variety of sources, policies and procedures vary. Participants indicated inconsistencies with reporting on projects. Project Managers have found it challenging and time consuming to keep up with

diverse demands to accommodate each donor while they handle several projects from a variety of donors. At its current maturity, the CCCCC will not be able to support a fully Directive PMO. This may change once the CCCCC has achieved a higher level of maturity in the future.

Using the same findings of the maturity evaluation and the existing organizational culture of CCCCC, as well as an overview of the roles of the other two forms of PMOs, Supporting PMO and Controlling PMO, it was determined that a merge of the two would be the most appropriate. In general, the CCCCC expressed a preference for using templates and sharing data from other projects, such as lessons learned, risk, and so on, which are characteristics of a Supportive PMO, while still desiring best project management practices, which are characteristics of a Controlling PMO. Below are some of the common objectives indicated by the participants that the PMO should satisfy:

1. Standardize terminology, templates
2. Establishing a common project methodology
3. Common support tools (a project management software)
4. Central Management Information System to store and access information
5. Establish effective project management processes
6. Increase project success levels

Once the PMO achieves these goals, it can be used as a starting point for the CCCCC's PMO. As a result of the above study and findings, a combination of both PMOs was chosen. The PMO forms and functions, as well as the needs expressed by the CCCCC, are highlighted in Chart 7.

**Chart 7. PMO Assessment Template (Source: Author)**

Type of PMO	Characteristics	Needs of CCCCC	Control Level	Maturity Level	Organizational Size Fit
<b>Supportive</b>	<ul style="list-style-type: none"> <li>• Templates</li> <li>• Best practices</li> <li>• Training</li> <li>• Resource sharing</li> </ul>	<ul style="list-style-type: none"> <li>• Resources sharing with regards to other projects</li> <li>• Improved communication</li> <li>• Common tools and templates for coherence</li> </ul>	Low	1-2	Small to Medium
<b>Controlling</b>	<ul style="list-style-type: none"> <li>• Governance and Conformance</li> <li>• Methodology adaptation</li> </ul>	<ul style="list-style-type: none"> <li>• Adherence of Best Practices</li> <li>• Conformance to standards for the improvement of successful projects</li> <li>• Improved accountability</li> </ul>	Moderate	3-4	Small to Medium
<b>Directive</b>	<ul style="list-style-type: none"> <li>• Directly manage projects</li> <li>• Strong governance framework</li> </ul>		High	5-6	Large

### 4.3. PMO Functions and Responsibilities

The functions and responsibilities for the hybrid PMO for the CCCCC are suggested based on the maturity assessment, organizational culture, and recommended PMO

type. These functions and responsibilities are derived from the CCCCC's needs evaluation and potential for change. Although it is critical to clearly define the PMO's functions and responsibilities, a simpler approach was used as this proposal was the first attempt at creating a PMO at the CCCCC. It is important that the PMO is realistic in order to increase the likelihood of success. A lot of analysis has gone into the duties of a PMO. The key role is to outline process requirements by presenting a blueprint for establishing standard performance indicators based on the organization's priorities, mission, and objectives, as well as the necessary resources and procedures to accomplish this. A set of guidelines and tools are necessary to use such as an (i) establishing project methodologies, (ii) project tracking, and (iii) project support.

#### **4.3.1 Establishing Project Methodologies**

One of the most important functions of a project management office is to include a path map for project execution which is also critical to the organization's success. A PMO is needed to estimate the size of the project, time and resources requirements, as well as outline the project methodologies using a variety of PMO tools and instruments. Although these are discussed below, it is worth noting that, given the CCCCC's project management maturity, it would be advisable to begin with a simple methodology. For this, consideration is made for the CCCCC's maturity level and organizational culture. Despite its project management experience working under the expectations of various donors, the organization does not have an internal formal approach for project management. Project management methodologies can be complicated, necessarily require a complex design, and are expensive. As a result, the preferred approach includes a straightforward project management process. Templates for the following can be found in Appendix 6 through 10.

- a. **Project Charter** – gives all stakeholders an overall vision of the project that includes priorities and objectives.

- b. **Workplan** – includes a comprehensive schedule of tasks, achievements, project team deliverables, and a list of available resources.
- c. **Governance Plan** – outlines the tasks and duties that will be allocated to each project team member.
- d. **Work Breakdown Structure** – lists specific deliverables that each team member is responsible for at specific stages of the project.
- e. **Communication Plan** – establishes the protocol, procedures, and methods for communicating project information and issues among team members.
- f. **Forms and Templates** – provides consistency in correspondence and reporting.
- g. **Risk Analysis** – identifies potential issues and risks of deviation from the project methodology in the likeliness of such events, the potential impacts and possible solutions.

#### 4.3.2 Project Tracking

Project tracking is especially critical and is the responsibility of the Project Manager. Monitoring aids in tracking any delay in progress and its potential impacts on the deliverables which is crucial to the success of all projects. According to this study, the expected PMO size for the CCCCC should monitor its project in a three-step cycle.

**Step 1: Collecting Project/Programme Status Information** – includes regularly collecting revised work schedules, issues, change control, and any other relevant data pertaining to the project.

**Step 2: Consolidation and analysis of data collection** – enables all the collected data to be analyze and results are compared to a set of predetermined benchmarks then reported to the management team for evaluation and potential action.

**Step 3: Corrective Action** – official endorsements on corrective decisions made by the senior management team.



The PMO is responsible for collecting and archiving project experiences that may be beneficial for future projects and would be necessary to form a part of the methodology of closing project which should be done by the Project Managers.

#### **4.3.3 Project Support**

One of the PMO's most important responsibilities, in addition to identifying, sustaining, and managing project processes, is to provide support for the project's smooth execution. Given the array of responsibilities of various inputs from internal and external resources, this focal area can be very challenging which makes it a critical task for the PMO. The PMO should function as a centralized customer-focused office that not only plans, negotiates, and analyzes programs, but also addresses all stakeholders' project-related concerns.

In addition, the PMO is responsible for preparing and mentoring a team of professional project managers. As a result, project managers must ensure that the project methodology is applied and preserved, and that their teams remain concentrated on the tasks at hand. Given that there are no internal mechanisms in place to ensure that project managers undergo the requisite training ahead of time and improve consistent project management skills, this would meet a critical need for the CCCCC. As a result, various degrees of project success are attained. A PMO's provides essential training to team members as it relates to applicable project management tools and strategies applied to the project. It also has supporting functions that will help to promote in-house consulting services tailored toward specific project concerns, which will be distributed to the project team as required.

Finally, through its ongoing training sessions, the PMO assists the company in building a core group of capable project managers. These project managers will then ensure that a project's implementation is achieved efficiently and reliably, following

the PMO's proven methodologies that are also aligned with the project's stakeholders through consultations. This will help to ensure consistent project quality and execution and work to improve projects and programmes.

The functions and responsibilities of the proposed PMO for the CCCCC are demonstrated in Chart 8.

**Chart 8. PMO Functions and Responsibilities (Source: Author)**

Areas	Responsibility	Functions	Creator	Approval	Owner
<b>Establishing Project Methodologies</b>	<ul style="list-style-type: none"> <li>Create Project Charter</li> </ul>	Project Manager	Project Lead	Project Sponsor	Project Management Office
	<ul style="list-style-type: none"> <li>Create Work Plan</li> </ul>				
	<ul style="list-style-type: none"> <li>Develop Governance Plans</li> </ul>				
	<ul style="list-style-type: none"> <li>Develop WBS</li> </ul>	Project Manager	Project Manager/ Project Lead	Executive Director	Project Management Office
	<ul style="list-style-type: none"> <li>Develop and Establish Communication Plan</li> <li>Develop and Establish Forms &amp; Templates</li> </ul>				
	<ul style="list-style-type: none"> <li>Prepare Risk Analysis Plan</li> </ul>				Project Management Office

<p style="text-align: center;"><b>Project Tracking</b></p>	<ul style="list-style-type: none"> <li>• Collect Project Status Information</li> <li>• Consolidate and Analyze Data Collection</li> <li>• Implement Corrective Action (if applicable)</li> </ul>	Project Managers	Project Manager/ Project Lead	Executive Director	
<p style="text-align: center;"><b>Project Support</b></p>	<ul style="list-style-type: none"> <li>• Centralized Management Information System</li> <li>• Training and Mentoring for the development of Project Managers</li> </ul>	Project Managers	Project Manager/ Project Lead	Executive Director	Project Management Office

#### 4.3.4 Functions of the PMO by Priorities

Many authors have described the functions of the PMO in the literature (Dai, 2002; Hill, 2004; Hobbs & Aubrey, 2005). (2007). The empirical research conducted by Hobbs and Aubrey on PMO functions is perhaps the most well-known (2007). The study relied on a comprehensive list of PMO functions extracted from the literature, and participants were then asked to rate the importance of each function on a scale of one to five (5 being the most important).

Hobbs and Aubrey (2007) logically grouped the functions as part of the analysis. This resulted in 5 main groups of functions:

- Monitoring and Controlling Project Performance

- Development of Project Management Competencies and Methodologies
- Multi-Project Management
- Strategic Management
- Organizational Learning

The research identified 27 functions that PMOs performed. The 27 functions which were assessed for the perception of value was derived from earlier work of Hobbs & Aubry, 2007, which represents the most common, or popular functions adopted by PMOs from around the world. The 27 functions, that Hobbs & Aubrey (2007) identified also aligns with the 20 PMO functions identified by earlier research conducted by Hill (2004). These functions will serve as the major services that the PMO should provide to the CCCCC.

As it relates to Group 1: Monitoring and Controlling Project Performance scored 91% Group 2: Development of Project Management Competencies and Methodologies scored 83%, Group 3: Multi-Project Management scored 75%, Group 4: Strategic Management scored 88%, and Group 5: Organizational Learning scored 96%. Having analyze the findings, Group 1 and 5 represents the top priority among the total of eight (8) participants. This helped in determining the scope of the proposed PMO to be that of a Supportive and Controlling PMO.

Chart 9 is adapted from (Hobbs & Aubry, 2007) and (PMO Value Ring Methodology, 2017) which considers the 27 functions rated by the participants of this research.

**Chart 9. Functions of the PMO (Source: Author adapted from (Hobbs & Aubry, 2007) and (PMO Value Ring Methodology, 2017))**

Functions	% PMOs where important	Functional Group	Number of Participants in Agreeance
Report project status to upper management	100%	1	8

Develop and implement a standard methodology	88%	2	7
Monitor and control project performance	100%	1	8
Develop competency of personnel, incl. training	75%	2	6
Implement and operate a project information system	100%	1	8
Provide advice to upper management	100%	4	8
Coordinate between projects	100%	3	8
Develop and maintain a project scoreboard	63%	1	5
Promote project management within organization	88%	2	7
Monitor and control performance of PMO	100%	5	8
Participate in strategic planning	63%	4	5
Provide mentoring for project managers	63%	2	5
Manage one or more portfolios	50%	3	4
Identify, select, prioritize new projects	75%	3	6
Management archives of project management documentation	88%	5	7
Manage one or more programs	75%	3	6
Conduct project audits	88%	5	8
Manage customer interfaces	88%	Manage Customer Interfaces	7
Provide a set of tools without effort to standardize	100%	2	8
Execute specialized tasks for project managers	75%	Execute Specialized Tasks for Project Managers (e.g., Prepare Schedules)	6
Allocate resources between projects	75%	3	6
Conduct post-project reviews	100%	5	8
Implement and manage database of lessons learned	100%	5	8
Implement and manage risk database	100%	5	8

Benefits management	100%	4	8
Networking and environmental scanning	88%	4	7
Recruit, select, evaluate, and determine salaries for project managers	63%	Recruit, Select, Evaluate, and Determine Salaries for Project Managers	5

Project knowledge is an important factor to the success of project management. The idea of establishing PMOs within organizations to facilitate a more centralized managing and controlling of operations are increasing. Therefore, the project management maturity model is proposed as a method in developing such PMOs. The maturity model helps the PMO progress by addressing appropriate project management practices.

Using the most common functions of a PMO adapted from (Hobbs & Aubry, 2007) and (PMO Value Ring Methodology, 2017), it was considered to influence the maturity measure through three approaches a PMO operates, strategically, tactically, and operationally. The three approaches are described as follows (Pinto, 2012):

1. Strategically, the PMO's role is to ensure that projects are aligned with:
  - i. The organization's strategic objectives – when projects are undertaken, they should be in line with the long-term objectives of the business.
  - ii. The organization's strategic growth – when projects are undertaken, they contribute positively to the organization's growth.
  - iii. Knowledge management is efficient and effective with the goal of improving project management policies, practices, and methodologies.
2. Tactically, the PMO's role is to ensure:
  - i. Close integration between project initiatives is required to ensure coordination among the various projects undertaken by the organization.

- ii. Consistent quality of project-generated products and services, as determined by monitoring to ensure that projects adhere to the defined standards and methodologies.
  - iii. Knowledge sharing among project members to ensure clear communication between project teams.
3. Operationally, the PMO is responsible for:
- i. Carrying out project evaluations by developing a process for operational reviews, approving requests for increased budgets and/or resources, and ensuring that projects are completed in a timely manner.
  - ii. Integration of project knowledge by ensuring that information is easily accessible for informed decision-making on specific implementation processes.
  - iii. Expert project management knowledge by serving as a central repository of lessons learned, best practices, and standardized methodologies.
  - iv. Constant customer satisfaction monitoring, providing regular project status reports to decision-makers, and coordinating communications between internal and external customers.

Prior to conducting the analysis at the CCCCC, the PMO that was considered was that of the Centre of Excellency. After carefully analyzing the researched information, it was determined that the PMO for the CCCCC will be mandated with the combination of these functions that best suits the organization in which it is operating. Given the PMI's approach to PMO frameworks, the proposed PMO is classified as a Project Support/Services/Controls Office, or PMO. It facilitates the management of projects, programs, and/or portfolios across the organization. This PMO will enable the CCCCC to develop necessary processes as well as establish practices and tools for implementation. It will provide administrative support to the organization for it to successfully deliver results.

### 4.3.5 Stakeholder Analysis of the PMO

In the article *Importance of Stakeholder Analysis in Management Plans*, Kokemuller, an experienced college marketing professor and author, stated that “stakeholder analysis is the review and consideration of the impact stakeholders have on your business” (Kokemuller, 2016). Following the steps described in the *PMBOK Guide*® and after identifying the potential stakeholders, the relevant information regarding “roles, departments, interests, expectations, and influence levels” (Project Management Institute, 2013, p. 396) were detailed as seen in **Chart 10**.

After the Stakeholder Registry (Chart 10) is completed, a power/interest grid was populated to allow for a pictorial representation of the ranking or categorization of program stakeholders.

**Chart 10. Stakeholder Registry (Source: Author)**

## STAKEHOLDER REGISTRY

<b>PROJECT NAME</b>	Establishing a Project Management Office (PMO) at the Caribbean Community Climate Change Centre (5Cs) based in Belize for the CARICOM Member States	<b>PROJECT MANAGER</b>	Meghann Gordon
<b>DATE</b>	May-21	<b>VERSION</b>	0.0.1

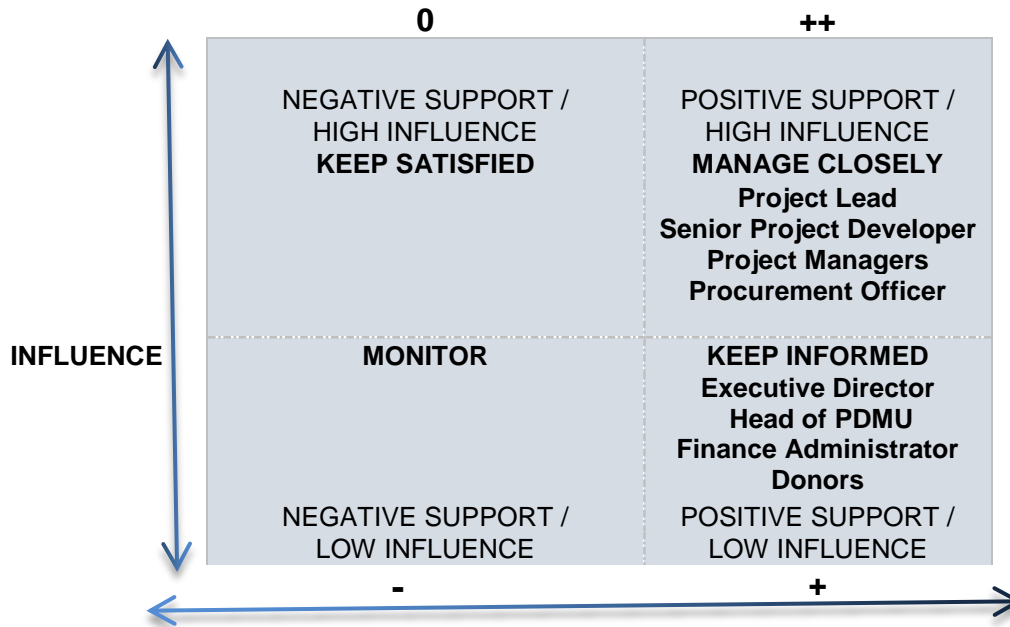
ROLE	PREDISPOSITION	COMMUNICATION TYPE	COMMUNICATION CHANNEL	MOTIVATION / DRIVERS / INVOLVEMENT	INFLUENCE
Sponsors, Managers, Users, etc.	Current commitment profile: resistant, ambivalent, neutral, supportive/committed	Meetings, Personal Communication, Reports, Presentation, Announcements etc.	Emails, Telephone, Face-to-Face	What level of involvement is expected?	High / Med / Low
	-    0    +    +				



<i>Executive Director</i>			+	<i>Meetings, Personal Communication, Reports, Presentation</i>	<i>All</i>	<i>Has high interest in the project. Responsible for recruiting funding of the project. Engages with the Board of Directors. Final acceptance is critical for project success.</i>	<i>High</i>
<i>Head of Project Management &amp; Development Unit</i>			+	<i>Meetings, Personal Communication, Reports, Presentation</i>	<i>All</i>	<i>Has high interest in the project. Responsible for the management of the Unit. Is critical throughout duration of the project</i>	<i>High</i>
<i>Project Lead</i>			+ +	<i>Meetings, Personal Communication, Reports, Presentation</i>	<i>All</i>	<i>Has high interest in the project. Responsible for assisting in the project management reporting, procurement. Works along with all Project Managers. Is critical through project duration.</i>	<i>High/Med</i>
<i>Senior Project Developer</i>			+ +	<i>Meetings, Personal Communication, Reports, Presentation</i>	<i>All</i>	<i>Has high interest in the project. Responsible for assisting in the project management. Works along with all Project Developers.</i>	<i>High/Med</i>
<i>Project Managers (5)</i>			+ +	<i>Meetings, Personal Communication, Reports, Presentation</i>	<i>All</i>	<i>Has high interest in the project. Responsible for managing all projects. Critical to the</i>	<i>Med</i>

							<i>project lifecycle.</i>	
<i>Procurement Officer</i>				+	<i>Meetings, Personal Communication, Reports, Presentation</i>	<i>All</i>	<i>Has high interest in the project. Engages with the Board of Directors. Is critical throughout the project lifecycle.</i>	<i>Med</i>
<i>Finance Administrator</i>				+	<i>Meetings, Personal Communication, Reports, Presentation</i>	<i>All</i>	<i>Has high interest in the project. Engages with the Board of Directors. Is critical throughout the project lifecycle.</i>	<i>Med</i>
<i>Donors</i>				+	<i>Meetings, Reports, Presentation</i>	<i>Emails, Telephone</i>	<i>Has high interest in the project. Responsible for the funding of the project.</i>	<i>High</i>
<b>PREDISPOSITION TOTALS</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>4</b>				

## STAKEHOLDER MATRIX



**Figure 11. Stakeholder Matrix (Source: Author)**

Stakeholder Analysis involved the review of the data compiled in Chart 10: the Stakeholder Register, in order to identify the relevant information required to select the appropriate management strategies and level of engagement for each stakeholder identified in Chart 12: Stakeholder Analysis and Level of Engagement. There will be many people with varying degrees of power, influence, interest, and impact on the establishment of a PMO in the CCCCC. Many regional and international donors will execute and fund the project.

The purpose of the Stakeholder Management processes includes identifying the people, groups, and organizations that may affect or be affected by the project, analyzing stakeholder expectations and their impact on the project, and developing appropriate strategies and tactics for effectively engaging stakeholders in a manner appropriate to the stakeholders' interest and involvement in the project. The Stakeholder Management Plan assists in ensuring that stakeholders are effectively involved in project decisions and execution (PMBOK 5th Edition) throughout the

project's lifecycle, gaining support for the project and anticipating resistance, conflict, or competing objectives among the project's stakeholders.

**Chart 11. Stakeholder Analysis (Source: Author)**

## STAKEHOLDER ANALYSIS

PROJECT NAME	Establishing a Project Management Office (PMO) at the Caribbean Community Climate Change Centre (5Cs) based in Belize for the CARICOM Member States			PROJECT MANAGER	Meghann Gordon
DATE	May-21			VERSION	0.0.1
Stakeholder	Key Interest & Impact Level (H/M/L)	Level of Influence (H/M/L)	Predisposition (- 0 + ++)	Management Strategies	Key points for Engagement and Management
<i>Executive Director</i>	Interest (H) Impact (H)	H	+	Consult/Inform/Keep Informed	Two-way Engagement
<i>Head of Project Management &amp; Development Unit</i>	Interest (H) Impact (H)	H	+	Consult/Inform/Keep Informed	Two-way Engagement
<i>Project Lead</i>	Interest (H) Impact (H)	H/M	++	Consult/Inform/Keep Informed	Two-way Engagement
<i>Senior Project Developer</i>	Interest (H) Impact (H)	H/M	++	Consult/Inform/Keep Informed	Two-way Engagement
<i>Project Managers (5)</i>	Interest (H) Impact (M)	M	++	Consult/Inform/Keep Informed	Two-way Engagement
<i>Procurement Officer</i>	Interest (H) Impact (M)	M	++	Keep Informed/Support	Two-way Engagement
<i>Finance Administrator</i>	Interest (H) Impact (M)	M	+	Keep Informed/Support	Two-way Engagement
<i>Donors</i>	Interest (H) Impact (H)	H	+	Consult/Inform/Keep Informed	Two-way Engagement

Legend			
-	Resistant	H	High
0	Ambivalent	M	Medium
+	Neutral	L	Low
++	Supportive/Committed		

The Project Manager will be responsible for engaging stakeholders throughout the project's lifecycle based on the information gathered in the Stakeholder Analysis Register and Communication Plan. Over the course of the project, the level of

engagement required for each stakeholder may vary. For example, during the early stages of the project, the Project Manager may need to engage more deeply with key stakeholders which is critical for project kick-off, achieving staff buy-in, and overcoming obstacles. The level of engagement will shift from key stakeholders to the broader project team and end-users as the project progresses.

The project will seek broad participation in the collection and validation of requirements, as described in the Scope Management. This will reveal issues and concerns early on and allow them to be addressed. The involvement of stakeholders is critical to the project's success. Throughout the project's lifecycle, the project team has planned for and will work to involve, engage, and listen to all key stakeholders. Since this is a living document, new stakeholders can be identified at any time during the project's life cycle. In such cases, the Project Manager will make a note of these individuals or groups and begin the stakeholder analysis process immediately to allow for more fluid project execution. The working team that was initially involved in stakeholder identification will then be notified immediately of the list additions and the intention to engage them. Existing stakeholders will also be enlisted to help identify additional stakeholders who may have gone unnoticed in previous planning activities.

Once approved by the Project Sponsor, the official changes will be reflected in a revised stakeholder register, emphasizing the new ranking and proposed communication approach for respective stakeholders. The Senior Project Lead will then distribute the updated stakeholder register to all Project Team Members. This stage is critical to the process since unidentified and/or mal-adjusted placements can lead to project conflicts or poor interactions.

#### **4.3.6 Validate Scope**

Validate Scope is the process of formalizing acceptance of the completed project deliverables. The key benefit of this process is that it brings objectivity to the acceptance process and increases the chance of final product, service, or result acceptance by validating each deliverable. (PMBOK® Guide) - Sixth Edition.

Following the planning of scope management, the requirements were collected as the final planning process for project scope management. As detailed in the PMBOK® Guide 5th edition, the three planning processes were conducted:

1. Plan Scope Management using expert judgement and interviews with the Project Lead on meeting with various stakeholders.
2. Collect Requirements using group decisions with staff members and analysis of a series of implementation techniques used by the organization.
3. Define Scope using the expert judgement and past experience of workshops with stakeholders.

The processes of monitoring and controlling were conducted throughout the research phase which helped with the validate scope relating to the closure of this process.

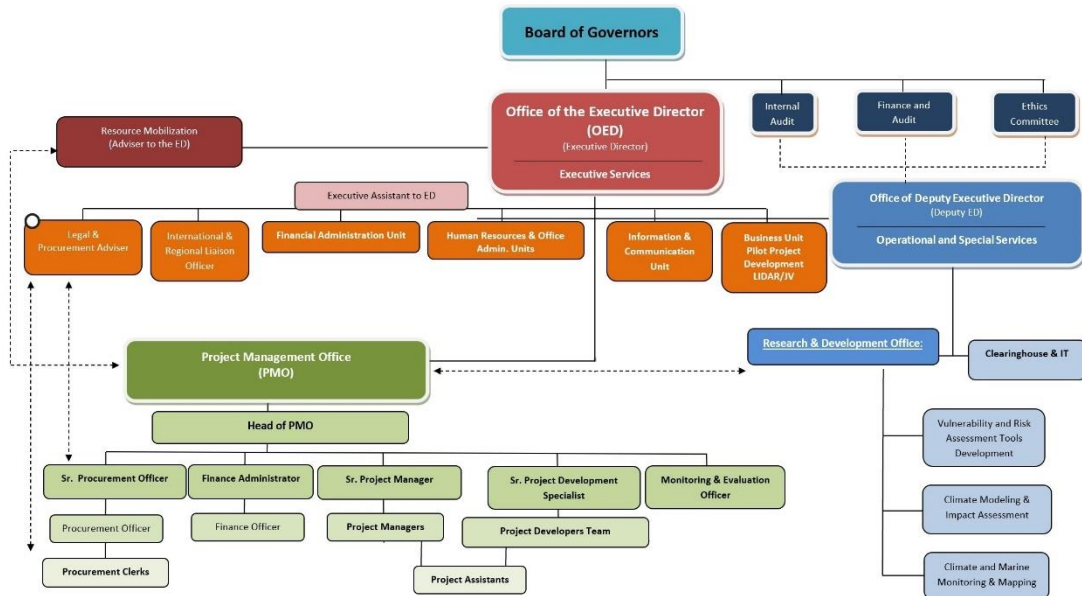
Note

#### **4.4. PMO Implementation Plan for the CCCCC**

The results of the maturity assessment and the organizational culture were contributing factors in deciding the most suitable PMO for the CCCCC. The success of the PMO is reliant on an appropriate implementation plan and also considers the functions, scope, and outcome of the identified PMO. The maturity assessment revealed that there is potential for growth in all the knowledge areas. There should be particular focus on integration, scope, and communication management. Participants expressed the importance of enhancing communication within the CCCCC. Evidently, there were some mechanisms within the Project Development

and Management Unit, but not necessarily within the CCCCC. Information sharing was done only when it was considered to be necessary which gave little opportunity for cross-units collaboration.

There was consideration of the position of the PMO as well as the implementation plan. Employees often saw projects as a means to an end rather than a tool or facility to help the organization achieve its goals. The location of the PMO in the organizational chart is essential for its implementation and effectiveness in the CCCCC. According to the participants, for the PMO to have the desired effect, it must be given adequate authority from the beginning. As a result, it is suggested to place above all other projects and programmes. Since Figure 12 was created with the help of senior staff, conducting a consultation with all stakeholders who will be affected by the PMO is one of the conditions for the PMO's implementation. The entire staff of the CCCCC, as well as those at the Board level, are among these stakeholders. The aim is to ensure that all stakeholders are aware of the PMO and its goals, as well as to reach a consensus on the PMO's location. If stakeholders are not adequately engaged, the implementation of the PMO would almost certainly be delayed.



**Figure 12. CCCCC Updated Organizational Structure (Source: Author)**

A comprehensive assessment of the CCCCC's ability levels in order to sustain the current PMO structure must be completed. The CCCCC's strategic and other related planning documents must be reviewed in order to assess the PMO's objectives and goals, as well as an appropriate implementation schedule. An examination of records, particularly those pertaining to completed projects, active projects, and projects in the development phase are needed, as it provides details on the size of PMO required. When the skills are defined and a needs assessment is completed and approved, the processes and procedures necessary to implement the PMO's methodologies should be developed. After the skills have been defined and the needs assessment has been completed and accepted, the processes and procedures needed to implement the PMO's methodologies can be developed. These processes and procedures are carried out with the help of process templates created especially for the CCCCC. Templates that make reporting and collaboration easier are critical resources that all team leaders should be trained. Furthermore,



once the PMO is established, periodic reviews will be needed to re-evaluate the project management office and learn from errors and ineffective processes or procedures. The results will be used to keep administration and other executives up to date on the PMO's success, make decision-making easier, and ensure that the PMO is current and important to the CCCCC.

The implementation plan outlined in Chart 9 will be carried out in phases. The proposed strategy is also scheduled to be completed in three months. This short timeline will seem optimistic, but it is meant to serve as a pilot to show how to mobilize a strategic document as well as an introduction to a result-oriented system.

**Chart 12. PMO High-Level Implementation Plan (Source: Author – Adapted from PM Majik)**

Phase	Item	Strategy	Task Description	Result	Schedule
1	1.0	Project Planning and Initiation	1.1 Finalize the vision 1.2 Finalize the scope 1.3 Finalize the project plan 1.4 Discuss and reach an agreement on the PMO framework	Finalized Project Plan and consensus on a vision and mission	Week 1-2
	2.0	Assessment of current environment	2.1 Evaluate all the organization's tools (human, financial and tangible assets) 2.2 Identify use of project tools 2.3 Conduct an organizational	SWOT Analysis Readiness Report	Week 3-4

			<p>readiness evaluation to decide how the PMO will be affected by the organization's culture</p>		
2	3.0	PMO Governance	<p>3.1 Establish the organizational structure and personnel</p> <p>3.2 Set up prioritization procedures</p> <p>3.3 Determine the mechanisms for change management</p>	<p>Organizational structure and staffing requirements</p> <p>Governance &amp; Escalation Structure</p>	Week 5-6
	4.0	Establishing Methods & Standards	<p>4.1 Standard project deliverable</p> <p>4.2 Project initiation processes</p> <p>4.3 Estimating processes</p> <p>4.4 Project plan templates</p> <p>4.5 Project milestone standards</p> <p>4.6 Scope management processes</p> <p>4.7 Change management</p>	<p>Project management methodology framework</p>	Week 7-8

			processes		
	5.0	Resource Management	<ul style="list-style-type: none"> <li>a. Determine a recording system</li> <li>b. Determine resource forecasting system</li> <li>c. Determine and define resource management process</li> </ul>	Resource Management Plan	Week 9
	6.0	Training & Mentoring	<ul style="list-style-type: none"> <li>a. Train key personnel in the use of enterprise tools and processes</li> <li>b. Conduct training in use of project level tools, templates and processes</li> </ul>	Training module/ requirements	Week 10-11
<b>3</b>	7.0	Deployment	<ul style="list-style-type: none"> <li>7.1 Launch PMO Pilot</li> <li>7.2 Implement enterprise tools and processes</li> <li>7.3 Testing of project level tools, templates and processes</li> </ul>	Program assessments PMO Review	Week 12

#### 4.5. Key Performance Indicators

Projects have many components; therefore, it is important of measuring timeliness, budget, quality, and effectiveness along the way. Key performance indicators (KPIs)

are a measure of success. KPIs consist of various specific measurement tools used in project management to indicate how well teams are achieving specific goals as prescribed by the project document or as set by the organization. As a result, when implementing a PMO for the CCCCC, it is critical to ensure that processes are in place to track performance indicators to demonstrate the value added by the PMO setup through improved project delivery.

The most appropriate set of KPIs for the PMO is determined largely by the type of PMO and its areas of responsibility. Based on its project management maturity and organizational culture, the most appropriate type of PMO is a hybrid of Supporting and Controlling PMO. As a result, the PMO's primary responsibility is to provide support by providing standard templates that should be used across the organization to streamline reports and such. The PMO's supporting role aims to introduce project management tools to the team to contribute to greater project success. The PMO should be able to track its performance regarding its controlling role. Apart from ensuring that the KPIs are relevant to the CCCCC, they should also be aligned with stakeholder requirements; thus, communication to obtain consensus is critical. A suitable timeframe for collecting and reporting on KPIs must also be established.

A KPI dashboard is proposed in demonstrating the value of the PMO at a glance for the CCCCC, project sponsors, and stakeholders to value a concise summary of the metrics used to track progress. It is important to ensure the creation of a user-friendly dashboard to support information accessibility and sharing. KPIs are a powerful management tool for achieving organizational success. Keeping track of accurate metrics from different teams can help determine where more direction is needed or where incentives, plans, and other resources, such as training, should be allocated.

### **Chart 13. PMO KPI Listing (Source: Author)**

Focal Area	Goal	KPI	Timeframe
<b>Process KPI</b>	Improved Project Management	<ul style="list-style-type: none"> <li>Task backlog</li> </ul>	Weekly/Monthly
		<ul style="list-style-type: none"> <li>Time elapsed between the occurrence of deviations, risks, conflicts and/or corrective actions</li> </ul>	Quarterly
		<ul style="list-style-type: none"> <li>Cost Performance Index</li> </ul>	Quarterly
		<ul style="list-style-type: none"> <li>Schedule variance</li> </ul>	Quarterly
<b>Project Success</b>	Improved Resource Management	<ul style="list-style-type: none"> <li>Percentage of resources shared across organization</li> </ul>	Quarterly
		<ul style="list-style-type: none"> <li>Percentage of resources working on support activities</li> </ul>	Quarterly
<b>Benefits</b>	Increased benefits realized to the	<ul style="list-style-type: none"> <li>Percentage of budget in strategic entities</li> </ul>	Quarterly

	organization	<ul style="list-style-type: none"> <li>• Number of projects completed within timeframes allocated</li> <li>• Number of strategic projects completed as a percentage of the total number of strategic projects</li> <li>• Number of people working on multiple projects</li> </ul>	Annually compared to other periods
	Creating a culture of efficiency	<ul style="list-style-type: none"> <li>• Percentage of timesheets and project reports submitted on time</li> </ul>	Monthly/Quarterly
		<ul style="list-style-type: none"> <li>• Percentage of stakeholder/sponsor review ratings in the top quartile</li> </ul>	Annually

## CONCLUSIONS

A modified questionnaire was used to conduct a maturity assessment based on the organizational project management maturity model. The purpose of this assessment was to determine the CCCCC's maturity in the areas and stages of process improvement by a set of Best Practices standards. The assessment was used to develop a shared understanding of the CCCCC's strengths and weaknesses in applying the project management discipline and the organization's willingness to do so. The assessment results specifically demonstrated the CCCCC's capabilities across two (2) domains, including the ten (10) knowledge areas and the project management process groups. The assessment results are used to guide the

selection of a suitable PMO for the CCCCC. Based on the results of the maturity assessment, it was determined that:

1. The maturity level assessment exercise yielded a score of 1 out of 4 on a 4-point scale. The index of 1 for OPM3 on the process improvement stages (Standard, Measure, Control, and Improve) corresponds to Standardized Maturity level 1, which is at the bottom of the scale. This score indicates that the CCCCC has demonstrated excellent knowledge in documenting project management processes. These findings also demonstrated that the CCCCC possesses significant capabilities at the next level of process improvement. As the organization continues to demonstrate improvement in the targeted knowledge areas it would be able to advance to the next process improvement stage.
2. The variability in the maturity assessment score highlights the CCCCC's strengths and weaknesses across the knowledge areas. It demonstrated strength in stakeholder, procurement, and quality management; however, scope and integration management require further strengthening. There is also a need for advanced training to develop project management professionals. Although the organization has been implementing projects for many years, project managers were frequently outsourced, even though capable individuals existed within the organization. A certain level of training is required for Project Manager positions, as evidenced by a review of the organization's institutional assessment. There are no procedures in place to provide the necessary training for these officers; instead, the individual must seek improvement on their own. Prioritizing staff training is critical to the PMO's success.
3. Through the analysis of the maturity assessment interview with key personnel, as well as a review of the organization's strategic planning

documents, it was determined that the CCCCC requires a PMO. The selected PMO considered appropriate, should fit within the proposed organization's current structure, as well as use structured organizational strengths to support its current status. This is as a result of the CCCCC's culture, size, and current lack of trained and skilled personnel to manage the new PMO process.

The preferred PMO is considered appropriate and should conform to the proposed organization's current structure and use structured organizational strengths to support the organization's status. This is due to the organization's culture, size, and a lack of trained and skilled personnel to oversee the new PMO process.

4. To assess organizational capabilities and levels of control, three basic types of PMO were evaluated. The ideal PMO type for the CCCCC at the moment is a hybrid composed of a Support and Controlling PMO dynamic. The policies and procedures of the donor agencies are followed in the implementation of the projects. Establishing a hybrid PMO will provide a greater advantage in developing project management professionals. It will be able to improve overall program management through the creation and implementation of standardized templates for wider usage. This hybrid PMO will also provide the CCCCC with the opportunity to start improving the use of these tools to determine their impact on the organization overall.
5. The functions assigned to the selected PMO should start with the three basic, but critical and widely accepted project management responsibilities, which include establishing project methodologies, project tracking, and project support. These are the primary responsibilities identified as critical. Other roles, as they may be required, would then fall under the main functions and responsibilities outlined herein. Currently, the CCCCC retains project



managers to manage other projects and programs. While it does have the in-house capacity in the form of project managers, the expertise required for the PMO's implementation would need to be outsourced at first.

6. Creating a POM for the CCCCC is equivalent to having an excellent implementation plan. The establishment of a PMO is critical, the interest of stakeholders must be carefully considered. As a result, adequate consultation is required to introduce the plan, gather feedback, and gain support for this plan. Staff should prepare for ownership rather than just support as a benefit of an established PMO.

As the maturity level of the CCCCC is still in its initial stages, any implementation proposals for its PMO should be carefully and strategically worked into the organization's existing planning framework. This approach would help to gather support for the PMO. Stakeholder input for CCCCC's PMO implementation plan outlined the various stages of PMO implementation, from consulting with stakeholders to finalize the vision to establishing project governance, training of staff, determining resource requirements, and finally deployment.

7. The placement of the PMO within the organizational structure was acknowledged as a major source of concern in key staff interviews. The PMO's placement entails ensuring that the PMO is given the appropriate level of authority to ensure that it not only provides support but also facilitates its enforcement functions.
8. The maturity assessment results aided in the development of key performance indicators, which are used to track project progress and eventually demonstrate the value of the PMO. With the establishment of the

PMO, the KPI chosen will help determine the percentage of financial sustainability achieved by the project and programmes. PMO leaders need metrics and measures to accurately report their organization's activities and must convey their usefulness and value to the organization.

9. Finally, the significance of this research is that it establishes that the CCCCC does require a PMO to improve project and programme management. This would improve financial sustainability, strategic alignment, and the application of standards and norms in the execution of organizational mandates. A more structured and results-oriented framework approach will be utilized by establishing a PMO. Project managers will have access to standard templates that can be used throughout the CCCCC. With the help of clear communication channels, projects and programs will be better able to integrate workplans, ensuring that the organization's priorities are reflected in the project plan.

## RECOMMENDATIONS

The CCCCC already has some management systems, processes, and documents in place. Based on the assessment, their maturity level is adequate, but there is room for improvement. The CCCCC devotes much energy and resources in routine tasks, causing projects and programs to be neglected or inadequately managed. As a way forward, the following are recommended:

1. The maturity assessment revealed several strengths as well as weaknesses that needed to be addressed. As a result, an annual project management maturity assessment is required to keep the CCCCC's maturity level current and relevant. At the end of the project budgeting cycle, the PMO should initiate the assessment through the Senior Project Manager to identify strengths, weaknesses, and needs so that the PMO can determine the best approach. The assessment should then be repeated every three years.
2. Following the implementation of the PMO, a monitoring and evaluation plan should be developed and implemented. Internal assessments or audits should be performed by the PMO on a semi-annual basis for the first two years, and then on an annual basis thereafter. This evaluation would allow the Project's leadership and the CCCCC's administration to assess its relevance to determine whether it is meeting its objectives and having the desired impact. Furthermore, it will advise the administration and other relevant stakeholders on the suitability of the PMO, if the CCCCC's projects would be better served by another PMO type.
3. Since the proposed PMO is relatively new to the CCCCC, it is essential that the right people with the necessary expertise lead during the early stages of implementation. A review panel or task force comprised of relevant individuals selected by the Executive Director and the Board of Directors, preferably senior managers, should be formed. The review panel will oversee assessing

the PMO's role, determining its adequacy, and making any necessary recommendations for improvement to better streamline the functions and responsibility of the PMO.

4. The PMO may require a more detailed implementation plan. From observing the organization's culture, the plan's success is dependent on staff ownership. The Project Manager must introduce and communicate the implementation plan to all stakeholders as early as possible, through various consultations and group meetings. Senior management should oversee the process of these consultation process ensuring a seamless flow for a successful PMO implementation.
5. The PMO should develop a Monitoring and Evaluation Framework within the first quarter of its implementation. A review of the KPI's should be included in the plan for information on project performance to be adequately captured, demonstrating the effectiveness of the PMO.

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## APPENDICES

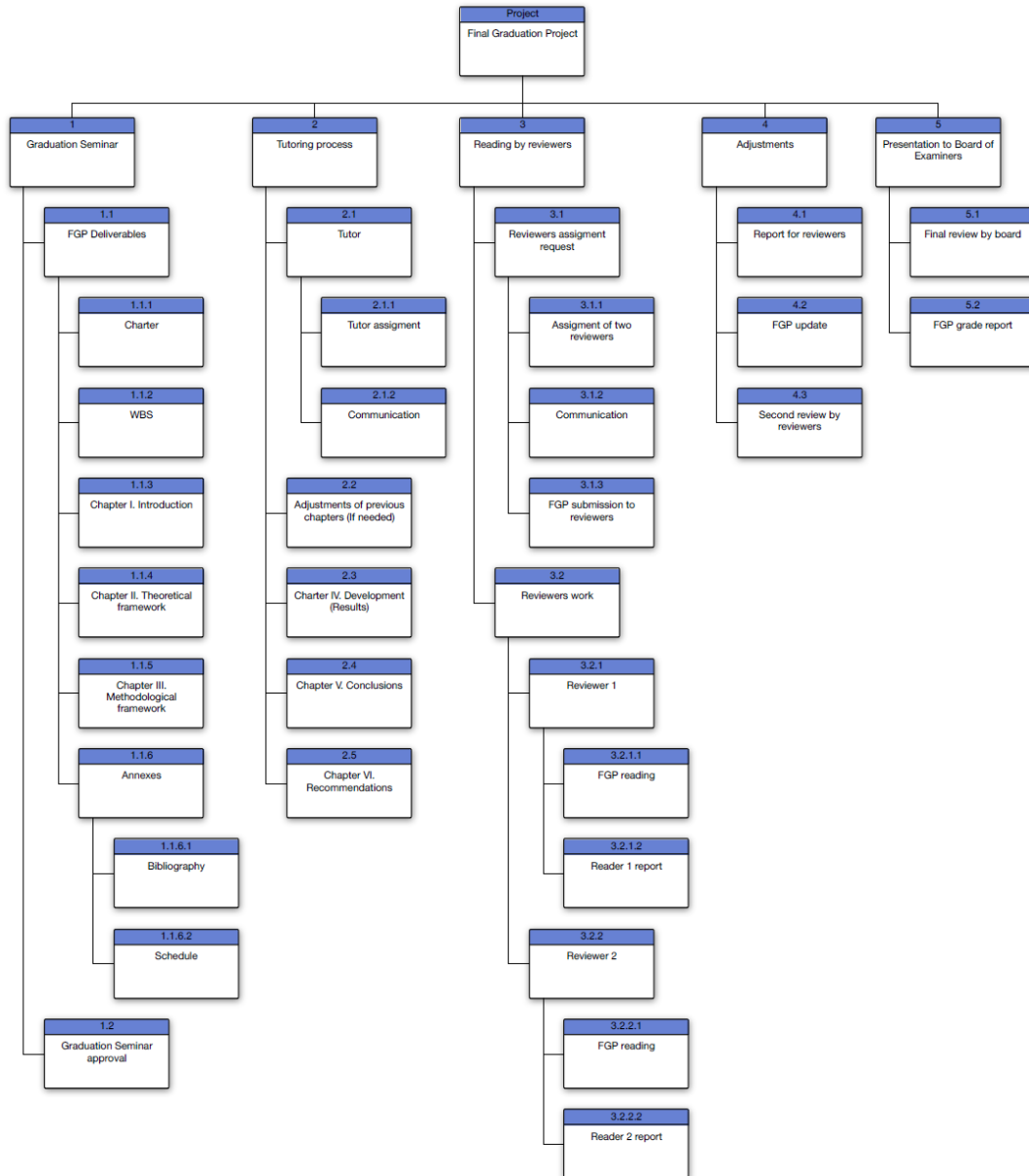
## Appendix 1: FGP Charter

PROJECT CHARTER	
<b>Date</b>	<b>Project Name:</b>
October 26, 2020	Completion of a Master's Thesis in Project Management. Proposed Thesis Topic: Establishing a Project Management Office (PMO) at the Caribbean Community Climate Change Centre (5Cs) based in Belize for the CARICOM Member States
<b>Knowledge Areas / Processes</b>	<b>Application Area (Sector / Activity)</b>
<p><b>Knowledge areas:</b> Project Integration Management, Scope Management, Time Management, Cost Management, Quality Management, Human Resource Management, Communication Management, Risk Management, Procurement Management &amp; Stakeholder Management</p> <p><b>Process groups:</b> Initiation, Planning, Execution, Monitoring &amp; Control &amp; Closing</p>	Climate Change/Adaptation and Mitigation Projects
<b>Start date</b>	<b>Finish date</b>
October 26, 2020	April 23, 2021
<b>Project Objectives (general and specific)</b>	
<p>General objective: To propose a Project Management Office (PMO) for Caribbean Community Climate Change Centre in order to maximize the organization's implementation potential through standardizing project management policies, processes, and methods for the projects being undertaken.</p> <p>Specific objectives:</p> <ol style="list-style-type: none"> <li>1. To evaluate CCCCC's maturity level to determine the strengths of its project management and improve the capacity of the CCCCC to enhance its' opportunities and rising needs of developing projects that will directly impact the CARICOM Member States response to climate change.</li> <li>2. To comprehensively analyze the various forms of PMO to properly make an informed suggestion on the most appropriate PMO for the CCCCC.</li> <li>3. To propose the PMO's functions and responsibilities to determine its effectiveness.</li> <li>4. To propose the PMO Implementation Plan for the CCCCC that will include a series of key procedures needed to monitor and enhance the CCCCC project delivery performance and identify an appropriate position for the PMO within the CCCCC's current organizational structure to give priority to its management functions.</li> <li>5. To determine a set of KPIs to measure the performance of the PMO.</li> </ol>	
<b>Project purpose or justification (merit and expected results)</b>	
<p>The purpose of this project charter is to seek the approval of the University to carry out a specific study relating to Project Management. The Final Graduation Project will allow the project initiator to apply the ten (10) knowledge areas of the PMBOK Guide learned throughout the duration of the Project Management Course. It is expected that the knowledge gained from the completion of these courses can be replicated and applied to daily functions in both professional and personal aspects of life. The benefits of this application will then contribute to the completion a Master's Degree in such field.</p>	

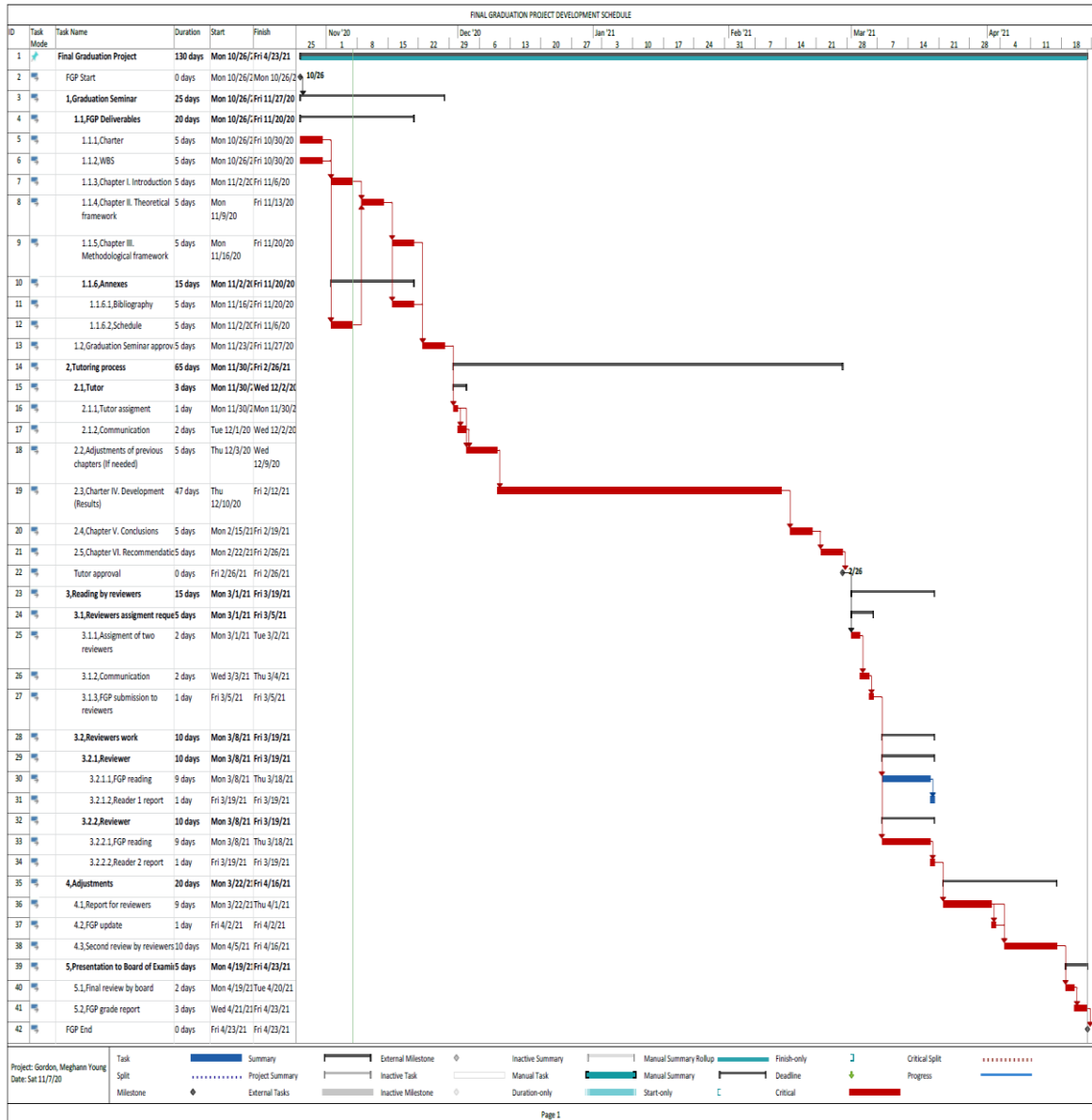
<b>Description of Product or Service to be generated by the Project – Project final deliverables</b>		
<ul style="list-style-type: none"> <li>Fully developed Project Charter and WBS for the Thesis Topic</li> <li>Report on policies and procedures to implement a Project Management Office</li> <li>Final Graduation Project</li> </ul>		
<b>Assumptions</b>		
<ul style="list-style-type: none"> <li>That the requirements for the completion of the Master's in Project Management remains as is as any changes will affect the time of obtaining the Master's degree.</li> <li>That the quality of services and guidance from the University is consistent</li> <li>That the organization in which the study will be conducted is in/or will be in full operations throughout the lifecycle of the study</li> <li>That the University remains a globally recognized institution that meets all the requirements to further pursue certification in becoming a Project Manager</li> </ul>		
<b>Constraints</b>		
<ul style="list-style-type: none"> <li>The time of completion may not be adequate to complete the final graduation project. *Note: it is advised to select a project that would be able execute in a four-month duration.</li> <li>Inadequate resources such as information, personnel (to interview), etc. may not be available</li> <li>The views and opinions of persons within the organization may be critical and may experience pushback on new perspectives.</li> </ul>		
<b>Preliminary risks</b>		
<ul style="list-style-type: none"> <li>If the proposed schedule to execute within four months is not followed it might delay the time to complete the FGP</li> <li>If the resources are not available it might reduce the quality of the FGP</li> <li>If the proper guidance is not available or utilized it might affect the quality of the FGP</li> <li>If the goals of the FGP does not adequately corresponds with the organization's overall goals it might not make the FGP relevant; therefore, hampering the scope and completion of the project initiator's Master's Degree.</li> </ul>		
<b>Budget</b>		
<p>General cost estimate of main items/deliverables for project budget.  Resources within the organization may provide for seamless transition/Established PMO  Four months study/Time  Accessible to public (public information)/Online resources  Paid through tuition/University Library  Proper management of time/Interviews  Free (submission through the University online platform (Moodle)/E-copy of Final Thesis</p>		
<b>Milestones and dates</b>		
Milestone	Start date	End date
Graduation Seminar Approved	November 23, 2020	November 27, 2020
Tutoring Process Approved	November 30, 2020	February 26, 2021
Review Reading Approved	March 1, 2021	March 19, 2021
FGP updated and 2 <sup>nd</sup> Approval	March 22, 2021	April 16, 2021
Board Approval and Final FGP	April 19, 2021	April 23, 2021

<b>Relevant historical information</b>	
<p>The Caribbean Community Climate Change Centre also known as CCCCC or the 5Cs, officially started their operations in August 2005 as a key node for information on climate change issues. It coordinates the Caribbean regional response to climate change working on effective solutions and projects to combat the environmental impacts of climate change and global warming. CCCCC serves as a repository and clearing house for regional climate change information and data. It provides climate change-related policy advice and guidelines to the Caribbean Community (CARICOM) Member States through the CARICOM Secretariat and to the UK Caribbean Overseas Territories and is archive and clearing house for regional climate change data and documentation.</p> <p>In this role as coordinator of implementing climate change projects and programmes, the CCCCC is recognised by the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Environment Programme (UNEP), United Nations Institute for Training and Research (UNITAR), and other international agencies as the focal point for climate change issues in the Caribbean. It has also been recognised by the as a Centre of Excellence, one of an elite few.</p>	
<b>Stakeholders</b>	
<p>Direct stakeholders: CCCCC Staff CARICOM Member States</p> <p>Indirect stakeholders: Communities affected by the implemented projects</p>	
<b>Project Manager: Meghann Young Gordon</b>	<b>Signature:</b> 
<b>Authorized by: Professor Carlos Brenes Mena</b>	<b>Signature:</b>

## Appendix 2: FGP WBS



## Appendix 3: FGP Schedule



## Appendix 4: Level of Maturity Questionnaire

### Organizational Project Management Maturity Questionnaire

This research is conducted by Meghann Young Gordon, a student at the University of International Corporation in Costa Rica for the Master's Degree Program. This questionnaire contains 40 questions adopted from the Project Management Institute (PMI) Organizational Project Management Maturity Model (OPM3). It is designed to provide an assessment framework that benchmarks with best practice, indicate areas where an organization can improve, and also determine its project management capabilities. This self-assessment requires yes or no responses to determine what level of best practices exist in the organization.

No.	Best Practices ID	Questions	Response		Knowledge Area	Process Improvement Stage
			Yes	No		
1	1390	Does your organization Standardize the "Close Project or Phase" process?			Integration Management	Standardize
2	2080	Does your organization Measure the "Close Project or Phase" process?				Measure
3	2620	Does your organization Control the "Close Project or Phase" process?				Control
4	3010	Does your organization Improve the "Close Project or Phase" process?				Improve
5	1230	Does your organization Standardize the "Direct and Manage Project Work" process?				Standardize
6	1920	Does your organization Measure the "Direct and Manage Project Work" process?				Measure
7	2460	Does your organization Control the "Direct and Manage Project Work" process?				Control
8	2850	Does your organization Improve the "Direct and Manage Project Work" process?				Improve
9	7500	Does your organization Standardize the "Plan Scope Management" process?			Scope Management	Standardize
10	7550	Does your organization Measure the "Plan Scope Management" process?				Measure
11	7600	Does your organization Control the "Plan Scope Management" process?				Control

12	7650	Does your organization Improve the “Plan Scope Management” process?				Improve
13	1030	Does your organization Standardize the “Collect Requirements” process?				Standardize
14	1720	Does your organization Measure the “Collect Requirements” process?				Measure
15	2260	Does your organization Control the “Collect Requirements” process?				Control
16	2650	Does your organization Improve the “Collect Requirements” process?				Improve
17	1050	Does your organization Standardize the “Define Activities” process?			Schedule Management	Standardize
18	1740	Does your organization Measure the “Define Activities” process?				Measure
19	2280	Does your organization Control the “Define Activities” process?				Control
20	2670	Does your organization Improve the “Define Activities” process?				Improve
21	7520	Does your organization Standardize the “Plan Cost Management” process?			Cost Management	Standardize
22	7570	Does your organization Measure the “Plan Cost Management” process?				Measure
23	7620	Does your organization Control the “Plan Cost Management” process?				Control
24	7670	Does your organization Improve the “Plan Cost Management” process?				Improve
25	1110	Does your organization Standardize the “Determine Budget” process?				Standardize
26	1800	Does your organization Measure the “Determine Budget” process?				Measure

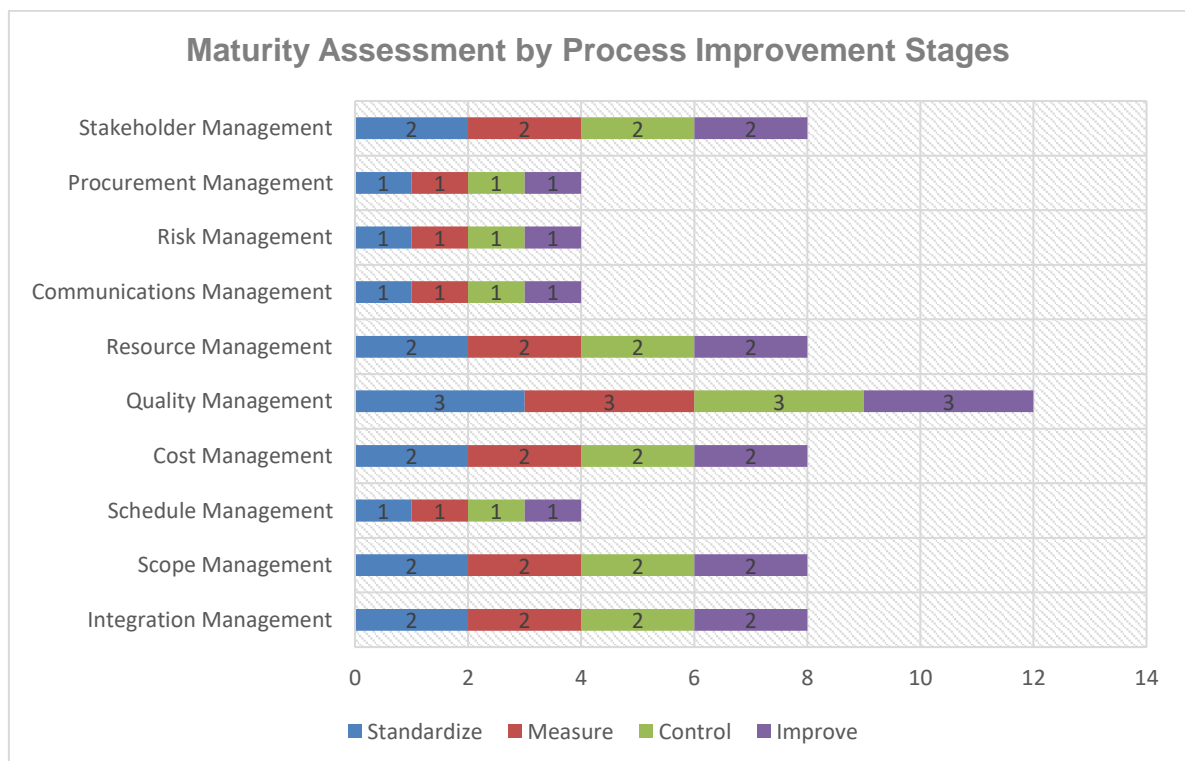
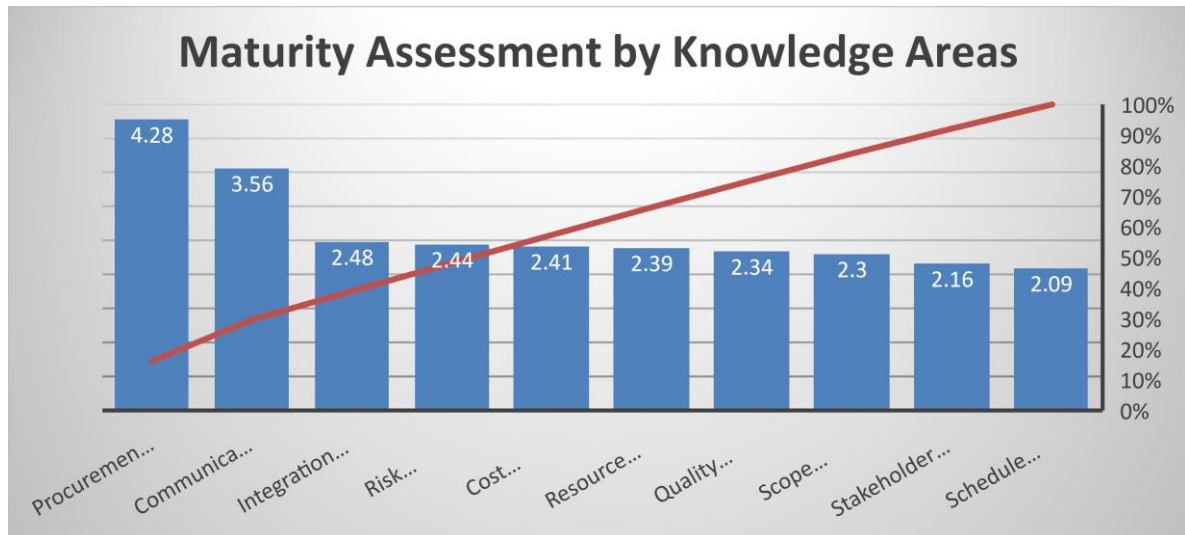


27	2340	Does your organization Control the “Determine Budget” process?				Control	
28	2730	Does your organization Improve the “Determine Budget” process?				Improve	
29	1130	Does your organization Standardize the “Plan Quality Management” process?			Quality Management	Standardize	
30	1820	Does your organization Measure the “Plan Quality Management” process?				Measure	
31	2360	Does your organization Control the “Plan Quality Management” process?				Control	
32	2750	Does your organization Improve the “Plan Quality Management” process?				Improve	
33	1240	Does your organization Standardize the “Perform Quality Assurance” process?				Standardize	
34	1930	Does your organization Measure the “Perform Quality Assurance” process?				Measure	
35	2470	Does your organization Control the “Perform Quality Assurance” process?				Control	
36	2860	Does your organization Improve the “Perform Quality Assurance” process?				Improve	
37	1360	Does your organization Standardize the “Control Quality” process?				Standardize	
38	2050	Does your organization Measure the “Control Quality” process?				Measure	
39	2590	Does your organization Control the “Control Quality” process?				Control	
40	2980	Does your organization Improve the “Control Quality” process?				Improve	
41	1090	Does your organization Standardize the “Plan Human Resource Management” process?				Resource Management	Standardize

42	1780	Does your organization Measure the “Plan Human Resource Management” process?				Measure
43	2320	Does your organization Control the “Plan Human Resource Management” process?				Control
44	2710	Does your organization Improve the “Plan Human Resource Management” process?				Improve
45	1250	Does your organization Standardize the “Develop Project Team” process?				Standardize
46	1940	Does your organization Measure the “Develop Project Team” process?				Measure
47	2480	Does your organization Control the “Develop Project Team” process?				Control
48	2870	Does your organization Improve the “Develop Project Team” process?				Improve
49	1260	Does your organization Standardize the “Manage Communications” process?				Standardize
50	1950	Does your organization Measure the “Manage Communications” process?				Measure
51	2490	Does your organization Control the “Manage Communications” process?				Control
52	2880	Does your organization Improve the “Manage Communications” process?				Improve
53	1120	Does your organization Standardize the “Plan Risk Management” process?				Standardize
54	1810	Does your organization Measure the “Plan Risk Management” process?				Measure
55	2350	Does your organization Control the “Plan Risk Management” process?				Control
56	2740	Does your organization Improve the “Plan Risk Management” process?				Improve

57	1370	Does your organization Standardize the "Control Risks" process?				Standardize
58	2060	Does your organization Measure the "Control Risks" process?				Measure
59	2600	Does your organization Control the "Control Risks" process?				Control
60	2990	Does your organization Improve the "Control Risks" process?				Improve
61	1270	Does your organization Standardize the "Conduct Procurements" process?			Procurement Management	Standardize
62	1960	Does your organization Measure the "Conduct Procurements" process?				Measure
63	2500	Does your organization Control the "Conduct Procurements" process?				Control
64	2890	Does your organization Improve the "Conduct Procurements" process?				Improve
65	7540	Does your organization Standardize the "Control Stakeholder Engagement" process?			Stakeholder Management	Standardize
66	7590	Does your organization Measure the "Control Stakeholder Engagement" process?				Measure
67	7640	Does your organization Control the "Control Stakeholder Engagement" process?				Control
68	7690	Does your organization Improve the "Control Stakeholder Engagement" process?				Improve
69	1195	Does your organization Standardize the "Identify Stakeholders" process?				Standardize
70	2005	Does your organization Measure the "Identify Stakeholders" process?				Measure
71	2015	Does your organization Control the "Identify Stakeholders" process?				Control
72	2025	Does your organization Improve the "Identify Stakeholders" process?				Improve

### Appendix 5: Maturity Assessment Index for the CCCCC



### Appendix 6: Project Charter

PROJECT CHARTER	
Date	Project Name:
Application Area (Sector / Activity)	
Start date	Finish date
Project Objectives (general and specific)	
General objective:	
Specific objectives:	
Project purpose or justification (merit and expected results)	
Description of Product or Service to be generated by the Project – Project final deliverables	
Relevant historical information	
Stakeholders	
Project Manager:	Signature:
Authorized by:	Signature:

### Appendix 7: Governance Plan

GOVERNANCE PLAN TEMPLATE (PROJECT NAME)						
Goal	Stakeholder Category	Priority	Person Responsible	Functions/ Responsibility	Communication Technology	Comments

**Appendix 8: Communications Plan**

COMMUNICATIONS MANAGEMENT PLAN							
ID	Stakeholder	Information	Method	Timing or Frequency	Sender	Assumptions	Constraints

**Appendix 9: Forms and Templates**

ISSUES LOG									
Reference Number	Type	Author	Date Identified	Date of Last Update	Description of Issue	Desired Outcome	Status	Completed Actions	Planned Future Actions

LESSONS LEARNED LOG							
Reference Number	Type	Owner	Date Logged	Description	Recommendations	Importance	Action Taken

## Quarterly Plans

Project No. and Title:

Date: XX.XX.XXXX

### Quarter 1 Work Plan

(PERIOD: MONTHS, YEAR)

**1. PROJECT DEVELOPMENT OBJECTIVE:**

**2. PURPOSE OF PLAN<sup>1</sup>:**

**3. RESOURCES AND RESPONSIBILITIES**

Total funds for year: \_\_\_\_                      Funds for Q1: \_\_\_\_

**4. PLAN DESCRIPTION:** Overview of the main activities to be undertaken and products to be delivered in this quarter. Place the amount budgeted for each key activity, i.e. if there are specific allocations for such.

**5. PLAN PREREQUISITES:** Any fundamental internal aspects that must be in place, and remain in place, for the plan to succeed.

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<sup>1</sup> The process of plan formulation helps the project manager to identify and schedule the activities, resources, key constraints, etc. It also aids in identifying options for integration and interfacing with other projects.

Project No. and Title:

Date: XX.XX.XXXX

**6. EXTERNAL DEPENDENCIES:** The relationships between products or activities (external dependencies are outside the project’s control).

**7. MONITORING AND CONTROL OF WORK PLAN:** Kindly indicate the tools and processes to be used to monitor and control the quarter’s plan.

Project No. and Title:

Date: XX.XX.XXXX

**11. ANNEXES**

**Annex A: Work and Expenditure Plan for Q2:** This Annex is optional. It is aimed more at breaking down the quarter into months.

**Annex B: Synopsis of Expected Targets for Q2:** This Annex is optional. Many projects have terminal indicators/targets only, thus the information in the fifth column is designed to assist the project manager to establish milestone targets that will lead up to the terminal indicator/target.

Results Chain	Indicators	Global Targets	Source of Verification	Milestone Targets Q2
Overall Objective /Goal/ Impact:				

**Annex C: Synopsis of Main Goods and Service to be procured in Q2:** This Annex should be based on the project’s global procurement plan. The global procurement plan should be updated on a regular basis, thus the intent here is to indicate the procurement that will be needed during the quarter and convey same to the Procurement Sub-Unit.

Goods/Service/Works	Performance	Date ToR/Specs to be Ready	Desired/Expected Start Date	Amount: Q2	Amount: Total for Year
	Planned				
	Actual				
	Planned				
	Actual				



## Quarterly Reports

Document No:  
Project No.

Date: XX.XX.XXXX

### Quarter No. \_\_\_\_ REPORT

Project Name	
--------------	--

Release	Draft/Final
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Author:	
---------	--

Client:	
---------	--

Document Number:	
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Document Location	
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Purpose:	
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Distribution	This document has been distributed to:		
Name	Title	Date of Issue	Version

### 1. BASIC DATA

The project's status at the end of the Quarter No. is:

#### A. Expenditure

Amount budgeted for year	
Amount budgeted for Q1	
Actual amount spent in Q1	
Delivery rate	
Remarks: Progress during this quarter was exceptional/satisfactory/below expectation. Under-expenditure was primarily due to:	
a.	
b.	

**Document No:**  
**Project No.**

**Date: XX.XX.XXXX**

**B. Activities<sup>1</sup>**

Activities on schedule at XX		
Activities ahead of schedule as of at XX		
Activities behind schedule at XX		
Activities not scheduled		

**2. PROJECT PLAN OUTLOOK (SCOPE/SCHEDULE/COST)**

**3. BUSINESS CASE REVIEW**

**4. PROJECT ISSUES**

**5. RISK REVIEW<sup>2</sup>**

**6. LESSON LEARNED**

<sup>1</sup> Project management activities are excluded

<sup>2</sup> A risk is defined as uncertain and external event or set of events that, should it occur, will have an effect of achievement of the objectives (time, cost, scope, quality).



## Appendix 11: Philologist Revision Letter

### Revision Certificate

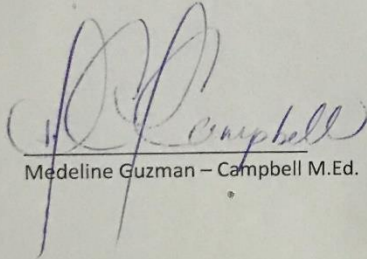
This is to certify that Mrs. Meghan Young –Gordon has submitted the final graduation project entitled, "Establishing a Project Management Office (PMO) at the Caribbean Community Climate Change Centre (5Cs) based in Belize for the CARICOM Member States", for revision.

I Mrs. Medeline Guzman- Campbell, former secondary and tertiary level English Language and Communications instructor and current high school Administrator with a Bachelor's Degree in English Language and a Master's Degree in Educational Leadership, endorse that this document has been extensively revised and that all suggested corrections have been completed.

During the revision process, errors in these areas were identified and corrected: repetition, incorrect subject verb agreement, incorrect word choice, errors in parallelism, comma splices, run-on sentences, wordiness and paragraph structure. These errors were highlighted in colors of red (needs revising) green (needed clarity) and yellow (suggested changes). These were forwarded to Mrs. Gordon for the necessary amendments.

The paper was well written, highly relevant and precise. I hereby extend my full approval and support and render this project for submission.

Sincere Regards,



Medeline Guzman – Campbell M.Ed.

**Appendix 12: Philologist Credentials**



# University of North Florida

has conferred on

**Medeline Marie Brown**

the degree

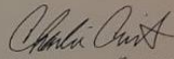
**Master of Education**

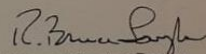
**Educational Leadership**

and all the rights and privileges thereunto appertaining.

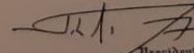
In Witness Whereof, this diploma, duly signed, has been issued and the seal of the University affixed.

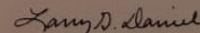
Issued by the Board of Trustees upon recommendation of the Faculty of the College of Education and Human Services at Jacksonville, Florida, this Fourteenth Day of December, A.D., 2007.

  
Governor

  
Chairman, University Board of Trustees



  
President

  
Dean