UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL

(UCI)

DEVELOPMENT OF A PROJECT MANAGEMENT PLAN FOR THE PROCUREMENT

POLICIES AND PROCEDURES STANDARDIZATION PROJECT FOR THE

CARIBBEAN DISASTER EMERGENCY MANAGEMENT AGENCY

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FINAL GRADUATION PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE
MASTER IN PROJECT MANAGEMENT (MPM) DEGREE

Bridgetown, Barbados

October, 2019

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

This Final Graduation Project was approved by the University as
partial fulfillment of the requirements to opt for the
Master in Project Management (MPM) Degree

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DEDICATION

This research project is dedicated to my husband, Euwin and my son, Jonathan for taking this walk with me along this journey.

I would also like to dedicate this to my colleagues at the Caribbean Disaster Emergency Management Agency's Coordinating Unit for the support that they provided me throughout this process.

ACKNOWLEDGMENTS

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ABBREVIATIONS AND ACRONYMS

- ACP EU   African, Caribbean and Pacific Group of States and the European Union
- CARICOM   Caribbean Community
- CDB   Caribbean Development Bank
- CDEMA   Caribbean Disaster Emergency Management Agency
- CDEMA CU   CDEMA Coordinating Unit
- CDERA   Caribbean Disaster Emergency Response Agency
- CDM   Comprehensive Disaster Management
- ED   Executive Director
- EU   European Union
- FGP   Final Graduation Project
- GCU   Glasgow Caledonian University
- IA   Implementing Agency
- ICT   Information and Communications Technology
- JUHSD   Jefferson Union High Shool District
- MER   Monitoring, Evaluation and Reporting
- NDCs   National Disaster Coordinators
- PMBOK   Project Management Body of Knowledge
- PMI   Project Management Institute
- PS   Participating State
- TAC   Technical Advisory Committee
- UCI   Universidad Para La Cooperacion Internacional

EXECUTIVE SUMMARY (ABSTRACT)

One way to maintain competitive advantage within an industry is to meet and exceed the best practice standards required for the industry and also its stakeholders. The Caribbean Disaster Emergency Management Agency (CDEMA), in its 27th year of operations, has seen its competitive advantage waning as the expectations of its key stakeholders (donors and development partners) increases. As the Caribbean Community's (CARICOM) agency with responsibility for disaster management in the region, several new actors have entered the industry within the past 20 years and there is increased competition for the same technical and financial resources.

Key stakeholders have requested transparency and accountability in the operations of the Agency in the reporting on projects showcasing that value for money has been attained. One of the areas identified for improvement in mid-term and final evaluations of projects was the procurement management function within the Agency. Recommendations were made to bring this function up to a standard that is internationally recognized by donor partners and showcases best practices in policies and implementation.

After an internal analysis several inconsistencies in the procurement policies and procedures were highlighted, and this project will therefore seek to fill the gaps identified. Specifically the Agency conducted its procurement in an ad-hoc fashion as opposed to following best practice standards, policies and procedures. Challenges are experienced as key resources needed to achieve the project's results were not identified in a timely manner and as such time and cost overruns were experienced. After the successful completion of the project, CDEMA realized an increase in awareness amongst its stakeholders on its improved procurement management policies and procedures. In showcasing their improved standards, the Agency simultaneously improved its transparency and accountability in its systems.

This project therefore outlined how the Agency incorporated procurement best practices and standards into one standardized procurement management plan and strategy for all its projects. The Project Management Plan included all the subsidiary plans required for effective project management by including the processes recommended by the Project Management Institute. The plans outlined the recommended activities to complete the project on scope; budget; schedule; met stakeholder expectations; ensured effective communication; and specified the additional resources required for the successful implementation of the project.

The general objective of the project was to create a Project Management Plan for the Caribbean Disaster Emergency Management Agency for the Procurement Policies and Procedures Standardization project utilizing best practice standards and the processes outlined by the Project Management Institute in their publication entitled "*A Guide to the Project Management Body of Knowledge – Sixth Edition*". The specific objectives were: to conduct an analysis of the existing procurement policies and procedures within the CDEMA Coordinating Unit (CU), to create a project charter which formally authorizes the Project, to create the project management plan, which defines how the project will be executed, monitored and controlled, to develop a scope management plan, which defines the scope of the project and outlines the activities required to complete the project successfully, to create a sustainable cost management plan and ensure adequate funds are allocated to the project to meet its deliverables, to develop a schedule management plan to support the development and management of the project schedule to ensure that work is completed as per agreed terms and conditions, to create a stakeholder management plan, which includes all project stakeholders, their needs and expectations and to ensure effective stakeholder management, to establish a communications management plan to ensure the timely and effective communication for the project to its stakeholders, to develop a procurement management plan, which captures all external human and financial resources required for the Agency to achieve its results and, to develop a procurement strategy, which outlines the types of agreements required for the project.

The methodology used for the project was analytical in nature with information culled primarily from unstructured interviews, observation and document/content analysis. The methodology also included an analysis and evaluation of information from secondary sources, such as the Project Management Institute's website and others; course notes from the Masters in Project Management courses at UCI; previous research and books and blogs. Literature related to project management standards and procurement management standards and strategies were the main focus of this research.

The tools utilized throughout the process were some of those which were identified in A Guide to the Project Management Body of Knowledge – Sixth Edition. The tools required for the project management plan and the subsidiary plans were carefully chosen based on the scope, schedule and cost for the Final Graduation Project. These included templates retrieved from the Project Management Institute; expert judgement; meetings; data gathering and resource optimization to name a few. Through the application of this methodology and the usage of the tools identified, the project completed the Project Management Plan and subsidiary plans for the Project Management Plan for the Caribbean Disaster Emergency Management Agency for the Procurement Policies and Procedures Standardization project.

1. INTRODUCTION

1.1 Background

The Caribbean Disaster Emergency Management Agency (CDEMA) is a regional inter-governmental agency in the Caribbean Community (CARICOM) with the responsibility for Disaster Management within the region. The Agency started in 1991 as the Caribbean Disaster Emergency Response Agency where its primary responsibility was to coordinate emergency response and relief efforts. Fast-forward to 18 years later, the Agency transitioned and changed its mandate from focusing solely on responding to disasters to embracing Comprehensive Disaster Management (CDM), which is an integrated and proactive approach to disaster management (Caribbean Disaster Emergency Management Agency, n.d.).

Since its transition, the Agency has strategically positioned itself as the driver in the region on information and activities related to CDM as it strives to build resilient communities through policies, procedures and best practices in the Caribbean. Its functions include mobilizing and coordinating disaster relief efforts; encouraging the adoption of disaster loss reduction and mitigation policies and practices; and providing immediate and coordinated response for its Participating States (CDEMA, n.d.). CDEMA is currently made up of the Coordinating Unit which serves as their secretariat located in Barbados, and the 18 Participating States of Anguilla, Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands and the British Virgin Islands.

CDEMA is governed by the Council which represents the Heads of Government of its Participating States; a Technical Advisory Committee (TAC) which is comprised of the National Disaster Coordinators (NDCs) of its Participating States (PSs), and is financed through annual contributions by its Participating States, as well as direct financial support in the form of Administrative

Fees from the implementation of projects. The sponsors for these projects vary, but generally CDEMA implements projects funded by the Governments of Canada, The United Kingdom, European Union, Australia, Japan, Caribbean Development Bank, Inter-American Development Bank and the World Bank.

The Agency is currently in the process of reviewing its procurement management standards to bring in alignment with some of the requirements established by the development partners/sponsors. Managing multiple projects at a time with one dedicated procurement officer brings many challenges especially when there are multiple procurement policies and procedures to follow.

CDEMA is the lead agency for disaster management within the region. In the past few years, there has been an increase in competition for human and technical resources, which was due to new actors entering the industry and battling for the same resources. Sponsors have requested changes to the management of project resources, and the reporting architecture on projects to satisfy the needs of their stakeholders who have requested increased transparency and accountability in their request that funds used showcase value for money. Some of these changes have resulted in the creation of standardizing policies and procedures to streamline processes. In some instances, the sponsor requires the usage of their own procurement guidelines. In 2015, CDEMA created the core position of Administrative and Procurement Officer in its organization structure, which was seen as the first step for the Agency in switching its focus from purchasing to fully embracing the procurement process. Currently, the Agency is implementing three projects, and this number is expected to increase beginning January 2019, and this will create a further burden on the procurement officer.

1.2 Statement of the problem

Procurement is currently implemented in an ad-hoc fashion in an 'as needs' basis as opposed to it being strategically planned into the development of projects. Oftentimes, this presents a challenge as all resources are not identified and included in the development of projects and this sometimes creates cost over-runs as items which were estimated at a lower rate or not identified at all are usually procured at a much higher price due to the last minute decision to procure. In addition, there are inconsistencies in the procurement procedures as there is no concensus as to which procurement procedure the Agency has endorsed. Is it the Agency's policy or is that of the donor partner? The procurement procedures sometimes vary by project and this has placed a burden on the Agency in trying to meet the needs of its key stakeholders. In the past 2 years, there have been reported procurement inefficiencies, which were outlined in the mid-term and final evaluation of projects. The lack of adequate planning, conducting, monitoring and controlling of procurement continues to be a challenge. Items are oftentimes procured at the last minute as the Agency does not have a procurement plan in place, so items are procured when they are needed, and this can sometimes slow down the implementation of the project as last minute purchases either mean procuring at a price above that budgeted or a delay due to items not being easily available within the region.

An example of this occurred when the Agency was conducting a review of its Regional Response Mechanism which is the Agency's tool or plan for responding to disasters and includes several stakeholders at the national regional and international levels. The review although included as a deliverable was not adequately budgeted for in terms of human resources requirements costs, and therefore, no funds were available to hire the consultant required to undertake the review. Also, due to the terms and conditions for the consultancy there were limited consultants/consultant teams who met the requirements and the Request for Proposals (RFP) had to be resubmitted several times, therefore, delaying this deliverable.

The consensus of the Management Team is that the Agency needs to improve its procurement procedures to bring it up to best practice standards, and retain its competitive advantage. This project management plan is being developed for CDEMA and will outline how the Procurement Policies and Procedures Standardization project will be executed, monitored and controlled.

1.3 Purpose

This project is being implemented in an effort to retain the Agency's competitive advantage within the region through the standardization of its Procurement Policies and Procedures, thereby, making it more attractive in the acquitision of new projects. The industry that the Agency operates in is very competitive with others fighting for the same financial resources from donor partners and human resources from within the region. It is therefore anticipated that by standardizing its procurement practices that the Agency will identify most of its needed resources within a timely manner so that the cost over-runs mentioned above are minimised, thereby, allowing the agency to see more savings. Instead of wasting resources reviewing and implementing multiple procurement plans, this Project Management Plan will detail how CDEMA can incorporate procurement best practices and standards into one standardized procurement management plan and strategy for all its projects. The Project Management Plan will include all the subsidiary plans which cover the project mangement knowledge areas and processes. These plans will outline the activities required to complete the project; ensure adequate funds are available; ensure that the project is completed on schedule; match stakeholder expectations; ensure effective communication, and specifiy the external resources required for the project. The plan will thereby create a pathway that CDEMA can follow to successfully improve their procurement practices and reduce the receipt of ineffective procurement citations during the project's evaluation.

1.4 General objective

To create a Project Management Plan for the Caribbean Disaster Emergency Management Agency to standardize the Procurement Policies and Procedures to ensure alignment with internationally recognized standards.

1.5 Specific objectives

1.5.1. To conduct an analysis of the existing procurement policies and procedures within the CDEMA CU to ascertain whether these meet best practice standards.

1.5.2. To create the project management plan which defines how the project will be executed, monitored and controlled.

1.5.3. To develop a scope management plan to ensure that the project is completed successfully.

1.5.4. To create a sustainable cost management plan to control the project's expenditure so that it stays within budget.

1.5.5. To develop a schedule management plan to ensure that work is completed as per agreed terms and conditions.

1.5.6. To create a stakeholder management plan to ensure effective stakeholder engagement.

1.5.7. To create a quality management plan which ensures that the outputs for the project meet specifications.

1.5.8. To create a human resources management plan so that all human resources are identified and procured in a timely manner.

1.5.9. To create a risk management plan which identifies the specific risks related to the project and to create solutions to manage these risks.

1.5.10. To establish a communications management plan to ensure the timely and effective communication for the project to its stakeholders.

1.5.11. To develop a procurement plan to ensure the right resources are purchased for the project.

The opportunity here for CDEMA would be an increase in awareness amongst its stakeholders on the alignment of the Agency's procurement practices with those that are considered best practice. This can create a positive ripple effect as the standardized process will create transparency and accountability in its systems, thereby, development partners/sponsors will recognize that the Agency has improved its processes, thereby, making them more attractive for new resources (technical and financial).

2. THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

CDEMA, currently in its 27th year, is the lead CARICOM Agency for Comprehensive Disaster Management (CDM) within the Caribbean region. Established in 1991 as the Caribbean Disaster Emergency Response Agency (CDERA), its mandate at that time was the coordination of emergency response and relief efforts to its Participating States that require assistance after the impact of a disaster. In 2009, the Agency's name changed from CDERA to CDEMA to fully embrace its new mandate expanded to include advocacy and the promotion of CDM (See Figure 1 below).
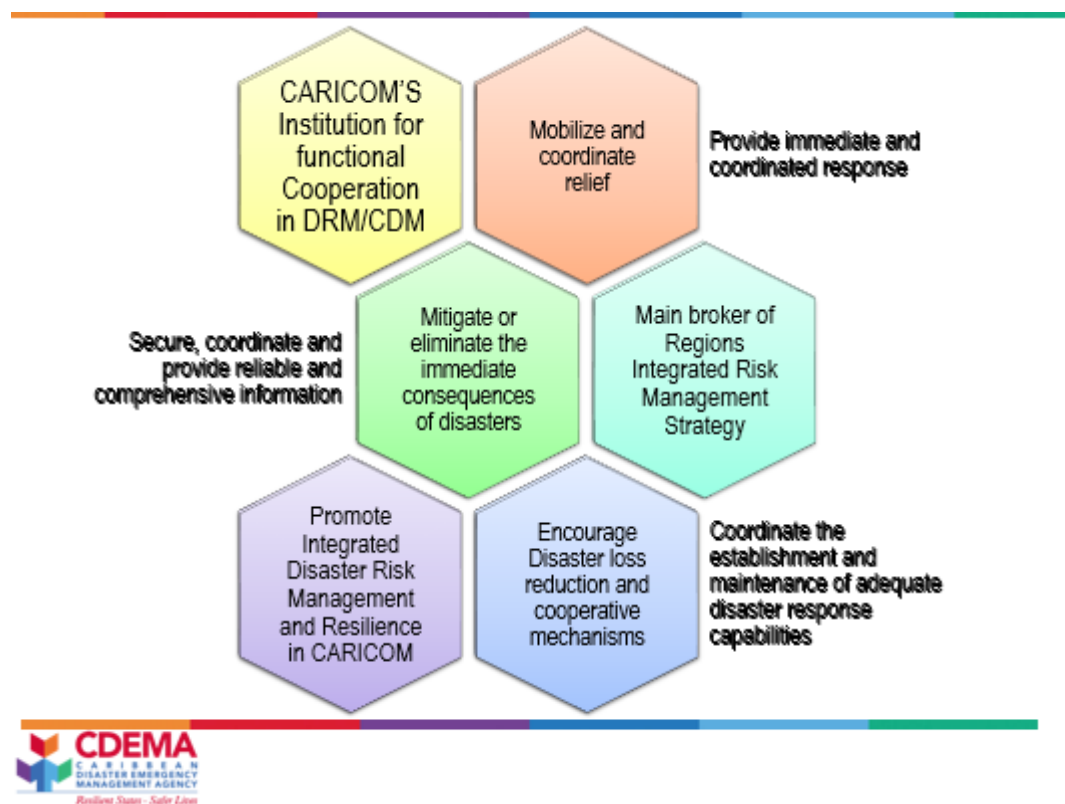
Figure 1: CDEMA's Mandate (Source: Internal Document).

The term Comprehensive Disaster Management (CDM), developed by CDEMA is the Caribbean brand of Disaster Risk Management, which has been embraced by all 18 CDEMA Participating States (see Figure 2) which signed on to CDEMA. On its website (www.cdema.org), CDEMA defines CDM as the management of all hazards through all phases of the disaster management cycle – prevention and mitigation, preparedness, response, recovery and rehabilitation. The Agency not only focuses on hurricanes that are prevalent to the Caribbean region, but also provides information on all disasters (earthquakes, tsunamis, flooding, etc.) which may affect the region. The CDM Strategy and Results Framework was adopted in 2001, revised in 2007, and further developed in 2013. Now in its third iteration, the 2014 – 2024 CDM Strategy's focus is to realize a '*safer, more resilient and sustainable CDEMA Participating States through Comprehensive Disaster Management.*'

Figure 2: CDEMA's 18 Participating States (Source: Presentation by CDEMA on 2017 Hurricane Season Lessons Learnt).

As a non-profit inter-governmental Agency, CDEMA relies heavily on support in the form of contributions from its 18 Participating States, and project administration fees from projects. These resources are used to cover the administrative and overhead costs of the Agency at its headquarters in Barbados.

The Agency is governed by the Council of Ministers, a Technical Advisory Committee and the Coordinating Unit. The Council of Ministers comprises the Heads of Governments of CDEMA's 18 Participating States who determine the policies of the Agency. The Technical Advisory Committee is represented by the National Disaster Coordinators and specialized regional organizations whose programmes are directly related to the CDM agenda. The Coordinating Unit is the Secretariat for CDEMA and is managed by an Executive Director who is appointed by the Council. The Governance Structure is outlined below:
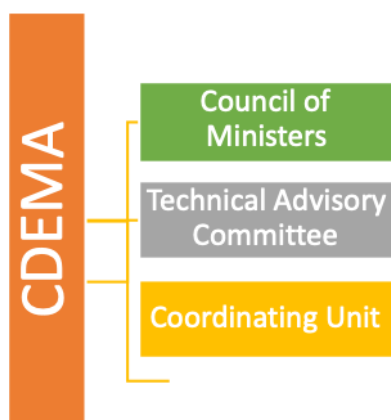
Figure 3: CDEMA's Governance Structure (Source: Author).

2.1.2 Mission and vision statements

Figure 4 below outlines the philosophy, mission, vision and master strategy of CDEMA's Coordinating Unit. The core of these values links directly to the tenets of CDM. CDEMA's philosophy is changing lives through CDM, and its master strategy seeks to cultivate strategic partnerships which build nation and regional capacity for CDM.

2.1.2.1   Vision Statement

The Vision Statement is "A regional centre for Disaster Risk Management excellence and the preferred partner for a safe Caribbean."

The vision statement of CDEMA speaks to being the preferred partner within the Caribbean. To become the preferred partner, the Agency will implement best practice solutions, utilize best practice tools and techniques to achieve this desired output, and throughout the process maintain and increase its accountability, transparency and visibility with its stakeholders.

2.1.2.2   Mission Statement

The Mission Statement is "To empower Participating States, influence, collaborate and partner with other organisations, to build disaster resilience in the Caribbean."

The empowerment of Participating States includes the building of capacities at the national level which would allow them to then use these new found or improved technical capacities to reduce vulnerabilities at the national level. These capacities include key project management techniques for the facilitation and management of projects at the national level. As such, CDEMA with support from its partners is seeking to increase capacities for project proposal development, financial security and monitoring and evaluation within its 18 Participating States.

A component of its fiduciary improvements include creating standardize project procurement policies and procedures to internationally recognized standards. One of these standards is the European Union's Pillars Assessments which are a set of requirements which, if passed successfully, could increase the level of financial support that CDEMA could receive from the European Union as well as other development partners. The European Commission's website (https://ec.europa.eu) provides guidance on the Pillars and indicates that they are across seven areas related to internal control, accounting, independent external

audit and rules and procedures for providing financing from EU Funds through grants, procurement and financial instruments for Sub-Delegation, which is the ability to grant funds to other parties (European Commission, n.d.).

The development of the Final Graduation Project (FGP) for the Project Management Plan will provide the Agency with another tool as they continue to evaluate their current procurement policies and procedures. In addition, the successful implementation of the Procurement standardization project will bring the Agency a step closer to meeting the fiduciary requirements for the Pillars Assessment, thereby, making it more attractive to development partners.

Figure 4: CDEMA Coordinating Unit's Philosophy, Mission, Vision and Master Strategy (Source: CDEMA Website).

2.1.3   Organizational structure

The structure of the CDEMA Coordinating Unit is that of a matrix organization with a combination of functional and projectized structures. A matrix organization is defined as 'any organizational structure in which the project manager shares responsibility with the functional managers for assigning priorities

and for directing the work of persons assigned to the project" (Project Management Institute, 2017).

The functional areas within the Coordinating Unit are Human Resources and Administration, ICT and Finance, whilst the projectized areas are scattered throughout the Agency where some other positions although functional in nature support the delivery of the results of projects. For example, the Planning and Business Development Manager has overall responsibility for resource mobilization, which includes searching for resources (mostly projects) and initiating and concretizing discussions with project sponsors. Currently, this position also has direct oversight for the largest project being implemented by the Agency – ACP EU funded National Disaster Risk Management Programme. In this role, the officer grants the final approval on all project-related matters. The Deputy Executive Director who heads the Technical Division ensures that technical input is provided for the Agency's programmes, but in collaboration with other technical staff also provides technical support for projects ensuring that both project and organizational deliverables are met.

The strategic direction for the Agency ensures that project's results are incorporated into their planning by choosing projects which not only contribute to deliverables within its Corporate Plan, but which also support the result areas of the CDM Strategy.

CDEMA currently employs 19 staff who are a combination of core and project employees. The organization chart below at Figure 5 provides the current structure for the organization as of September 2015. Of the 20 core positions listed in Figure 5, six positions are being financed through project resources and were expected to transition to the core budget in February 2018. Due to financial constraints, the Agency was unable to complete this transition and as a result, some of these positions are still being financed by the project, whilst the others are

now vacant. Once the Agency has retained its competitive advantage and realizes an increase in finances then these positions will be prioritized.

CDEMA ORGANISATION CHART @ Sep. 2015

Figure 5: CDEMA Coordinating Unit's Organization Structure as at September 2015 (Source: Internal Document).

Figure 6 displays the organization structure as of September 2014. The structure was updated through a change review consultative process. It is important to note that the official organization structures only lists the core positions of the Agency that are required in order for it to effectively realize its mandate. Project staff are not included in the official structures as these positions are temporary in nature with persons being employed no more than 5 years.

Figure 6: CDEMA Coordinating Unit's Organization Structure as of September 2014 (Source: Internal Document).

In reviewing the two structures, you will realize that a core position of Administrative and Procurement Officer was created. This was to concretize the strategic direction of the Agency in its switch from a purchasing function to fully embracing the Principles of Procurement. This position with support from the Human Resources and Administration Manager has general oversight for Procurement within CDEMA. Prior to this position being created, procurement was planned by managers (including project managers), conducted by the administrative staff and monitored and controlled by the administrative and final teams.

The FGP will impact the entire organization as the procurement functions are spread throughout the Agency.

2.1.4 Products offered

As the lead agency with Disaster Management responsibilities within the Caribbean region, CDEMA offers the following services as outlined in Chart 1 below. These services are available to key CDEMA stakeholders.

Chart 1: Services offered by CDEMA (compiled by author from Internal Document)

Services	Responsible Unit/Division
Disaster Information Clearing House	*Communication and Education*
Exercise Design and Simulation	*Preparedness and Response*
Emergency Coordination	*Preparedness and Response*
Organizational Safety	*Human Resources and Administration Management*
Project Management	*Office of the Executive Director*
Results based programming including Monitoring, Evaluation and Reporting (MER)	*Planning and Business Development*
Audit of Comprehensive Disaster Management	*Planning and Business Development*
Specialized Training in areas such as CDM tools and information, Report Writing, Disaster Management	*Office of the Executive Director with support from the Human Resources and Administration Management*
Business Continuity Planning	*Office of the Executive Director*
Disaster Plan development	*Preparedness and Response*
Disaster Management Guidance and Training	*Preparedness and Response with support from Communication and Education*

Proposal Development	*Planning and Business Development*
Policy Formulation and Advisory Services to Governments	*Office of the Executive Director*
Strategic Planning for CDM and Country Work Programme Development	*Office of the Executive Director*
Workshop facilitation	*Communication and Education*
Information and Communication Technologies advice	*Information & Communications and Technology*

The achievement of the FGP objective will support the delivery of Project Management Services to CDEMA's stakeholders. The development of the Project Management Plan will incorporate the best practices in Project Management, thereby, reinforcing the importance of developing and following the integrated plan. Naybour (2016) reminds of the benefits that can be achieved by incorporating a structured project management plan into your processes. These benefits include effective decision-making, controlled project scope through the development of the Scope Management Plan, client expectations are met, problem resolution through the identification and creation of an action plan for risks, and costs and schedule are controlled as the plans associated with each developed and closely monitored.

2.2 Project Management concepts
2.2.1 Project

Projects are very important to CDEMA as they provide additional financial and technical resources to the Agency and thereby, allows it to better fulfil its strategic goal. Collecting contributions from its Participating States has been a challenge, but this is even more so now after the financial crisis in 2007, which is still affecting some states. CDEMA has therefore sought to increase the number and frequency of projects to fill the void this has left.

The Project Management Institute defines a project as "a temporary endeavor undertaken to create a unique product, service, or result" (PMI, 2017). This final graduation project will create a project management plan for the Procurement Policies and Procedures Standardization project for CDEMA. This project's aim will be to systematize the procurement management process at CDEMA by ensure its alignment with procurement best practice standards, and to meet the needs of its key stakeholders.

2.2.2 Project management

Project management as defined in the 6th Edition of the PMBOK (PMI, 2017) is "the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements." By incorporating these best practice standards into already existing project management policies and procedures, the organization will be in a position to initiate, plan, execute, monitor and control, and close-off their projects effectively.

Before its transition from CDERA to CDEMA in 2009, the Agency developed an outline of Project Management Guidelines, which was intended to provide detailed guidance to staff who are involved in the implementation of projects and programmes. The outline divided the guidelines into three sections namely Project Development/Design, Project Implementation and Project Close Out. The full outline is included at Appendix 4. This was in an attempt for the Agency to develop a standardized approach to project management. There is no indication as to whether there this outline was advanced into an actual guidance document or whether best practices for project management were incorporated. Although there is an awareness of project management and this also evidenced by employees who are certified Project Management professionals or who have attained some level of project management knowledge, there is currently no standardized Project Management Guideline being utilized by the Agency.

In the development of the Project Management Plan for the Procurement Policies and Procedures Standardization project for CDEMA, the Project Management knowledge areas/processes and process groups as outlined by the Project Management Institute will be incorporated. In addition, the 6th Edition of A Guide to the Project Management Book of Knowledge published by the Project Management Institute in 2017 will be the primary reference for project management for this Final Graduation Project. The knowledge area and process groups being utilized are outlined below:

- Project Management Knowledge Areas/Processes
  - Integration Management
  - Scope Management
  - Cost Management
  - Schedule Management
  - Quality Management
  - Human Resources Management
  - Communications Management
  - Risk Management
  - Procurement Management
  - Stakeholder Management
- Process Groups
  - Initiating
  - Planning
  - Executing
  - Monitoring and Controlling
  - Closing

2.2.3 Project life cycle

The Project life cycle provides a guideline of the project from the time the project is thought up to its closure. PMI advises that "it provides the basic framework for managing the project and applies regardless of the specific work of the project." (PMI, 2017). So, irrespective of the scope, cost and time of the project,

it will follow this cycle: Project Initiation; Project Planning: Project Evaluation (Monitoring and Controlling), and Project Closure. CDEMA's projects also follow this standard cycle, so as a result, the project being developed for CDEMA will follow PMI's project life cycle as outlined in Figure 7.

Figure 7: Project Management Life Cycle. Reprinted from Method123. Copyright (c) Method 123.

During the initiation phase for the FGP, organization materials were reviewed and consultations undertaken with internal stakeholders to develop a business case for the project. A project charter for the FGP was developed (Appendix 1) which outlined the objectives, assumptions and constraints, risks and deliverables for the project. A Work Breakdown Structure (Appendix 2) which details the work to be undertaken by the project is also included. Once the project charter has been approved, the project enters the planning phase.

In the planning phase, the project team member will create the Project Management Plan. PMI coins this as "the process of defining, preparing and

coordinating all plan components and consolidating them into an integrated project management plan." (PMI 2017).

The next phase in the life cycle is project execution or implementation where the project's deliverables are created and delivered for approval from the sponsor. As the deliverables are created, they are assessed against the project's criteria for scope, cost, schedule and quality to ensure that they meet the needs of the stakeholders. This process is continuous throughout the life cycle of the project and the Project Management Plan and its associated schedules are reviewed and comparisons conducted on the planned versus actual implemented processes for the project. Differences between these are evaluated to ascertain whether they present an opportunity or a threat for the project, and lessons learnt are noted.

Project closure is the final phase in the project life cycle, and this constitutes the formal closing of the project. In this phase, the project's deliverables are handed over to the customer, the documentation for the project shared with the organization, and the stakeholders are notified of the closure. On CDEMA's Outline Project Guidelines document which was drafted in 2008, Chart 2 identifies the specific inputs required for this phase:

Chart 2: Project Closure: Chapters in Project Guidelines Document (compiled by author)
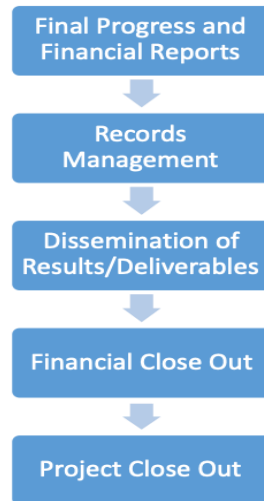
2.2.4 Project management processes

The PMBOK Guide 2017 defines project management processes as "a systematic series of activities directed toward causing an end result where one or more inputs will be acted upon to create one or more outputs." These processes include initiating, planning, executing, monitoring and controlling and closing. Processes are used at various timelines throughout the project's life cycle. The monitoring and controlling processes are used throughout the life cycle of the project to ensure that the project stays within scope, whilst the closing process is used at one time during the project's closure. Figure 8 below shows the relationship of the process management processes with other project management tenets.
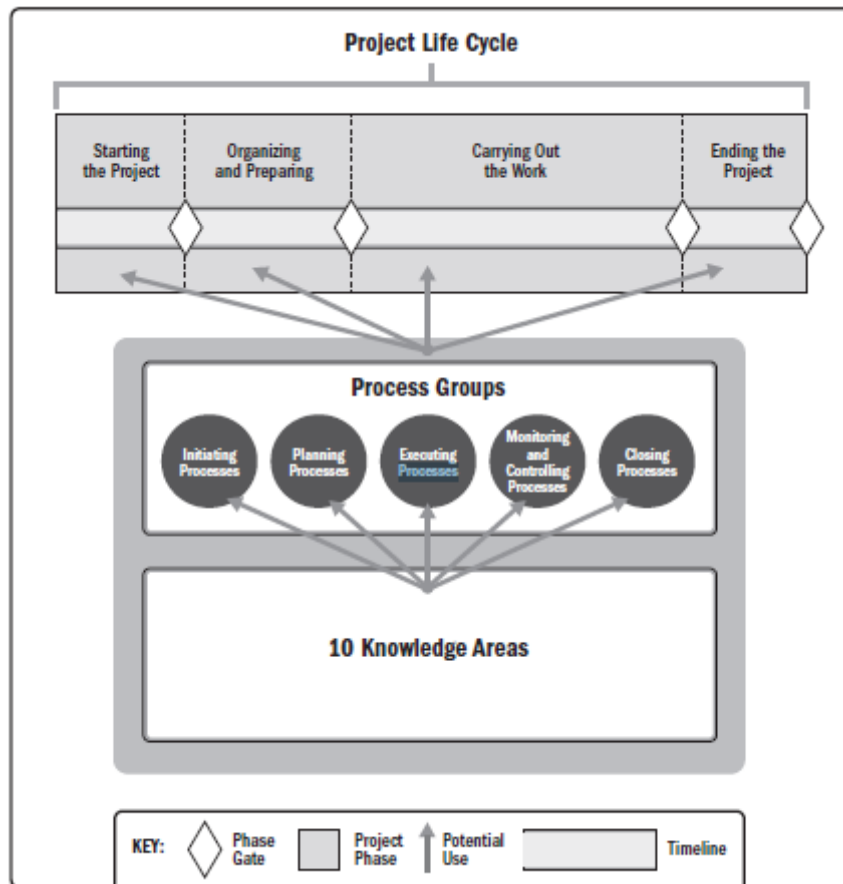
Figure 8: Interrelationship of PMBOK (R) Guide Key Components in Projects. Reprinted from A Guide to the Project Management Body of Knowledge (p.18), Project Management Institute 2017 by Project Management Institute.

The FGP will follow the process groups for Initiate and Plan only in the development of the Project Management Plan. For the initiating process those processes required to define a new project and gain approval for the project will be completed. For the planning process group, those processes required to determine the scope, objectives and develop the subsidiary plans will be completed.

2.2.5 Project management knowledge areas

There are 10 project management knowledge areas, and these are spread across the project life cycle and project management processes. A knowledge area is defined by the PMI as "an area of project management defined by its knowledge requirements and described in terms of its component processes, practices, inputs, outputs, tools and techniques." (PMI, 2017). The ten knowledge areas are:

1. Project Integration Management: The FGP's output of a Project Management Plan will see the integration of the subsidiary project plans into one cohesive document – the Project Management Plan – see Figure 9 below for the processes included in this area.
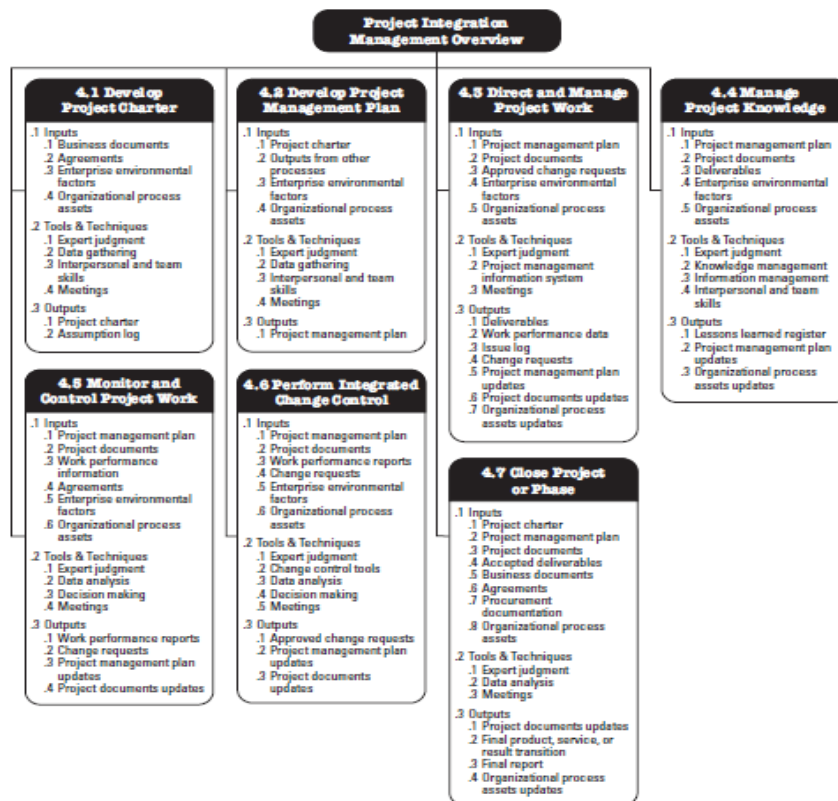
Figure 9: Project Integration Management Overview. Reprinted from A Guide to the Project Management Body of Knowledge (p. 71), Project Management Institute, 2017. Project Management Institute. Copyright 2017 by Project Management Institute.

2. Project Scope Management: this ensures that the activities required to achieve the project's results are clearly articulated in the project document.

3. Project Schedule Management: this knowledge area will incorporate only those processes required to ensure that the project is completed on schedule and as per the terms of conditions of the agreement.

4. Project Cost Management: the processes associated with this knowledge area ensures that project is completed within the approved project budget.

5. Project Quality Management: These processes ensure that the organization's quality standards are maintained and enhanced where necessary into the final project result.

6. Project Resource Management: through this process, the resources required to achieve the project's results are identified, acquired and managed.

7. Project Communications Management: the FGP will develop a communications plan to ensure the timely and effective dissemination of the project's information to its stakeholders.

8. Project Risk Management as defined by PMI "includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project." (PMI, 2017)

9. Project Procurement Management: This area includes processes required for the acquisition of external resources for the project.

10. Project Stakeholder Management: For this area, a stakeholder management plan will be created which will capture all project stakeholders, their expectations, interests and impact on the project and will ensure effective stakeholder engagement.

The relationship between the knowledge areas and the project management processes is shown below in Figure 10.

Knowledge Areas	Project Management Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work 4.4 Manage Project Knowledge	4.5 Monitor and Control Project Work 4.6 Perform Integrated Change Control	4.7 Close Project or Phase
5. Project Scope Management		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
6. Project Schedule Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Durations 6.5 Develop Schedule		6.6 Control Schedule	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Manage Quality	8.3 Control Quality	
9. Project Resource Management		9.1 Plan Resource Management 9.2 Estimate Activity Resources	9.3 Acquire Resources 9.4 Develop Team 9.5 Manage Team	9.6 Control Resources	
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Monitor Communications	
11. Project Risk Management		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses	11.6 Implement Risk Responses	11.7 Monitor Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Manage Stakeholder Engagement	13.4 Monitor Stakeholder Engagement	

Figure 10: Project Management Process Group and Knowledge Area Mapping. Reprinted from A Guide to the Project Management Body of Knowledge (Annex A1), Project Management Institute 2017. Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

2.2.6 Project management plan

During the planning phase that this integrated plan is developed along with the supporting management plans for scope, schedule, cost, quality, human resources, communication, stakeholder management and procurement. The plan serves as the guide for the project team and other internal and external stakeholders. The development of the Project Management Plan will follow the procedure as listed in PMBOK Guide (2017) at Figure 11 below. Inputs to this process will be the Project charter, Outputs from other processes (the charter of the Project Management Plan), enterprise environmental factors and organizational process assets. The Project Management Plan will also include the set of plans to manage the scope, cost, schedule and quality of the procurement standardization project.

Develop Project Management Plan

Inputs	Tools & Techniques	Outputs
.1 Project charter	.1 Expert judgment	.1 Project management plan
.2 Outputs from other processes	.2 Data gathering	
.3 Enterprise environmental factors	• Brainstorming	
.4 Organizational process assets	• Checklists	
	• Focus groups	
	• Interviews	
	.3 Interpersonal and team skills	
	• Conflict management	
	• Facilitation	
	• Meeting management	
	.4 Meetings	

Figure 11: Develop Project Management Plan: Inputs, Tools and Techniques, and Outputs. Reprinted from A Guide to the Project Management Book of Knowledge (p. 82) Project Management Institute, 2017, Project Management Institute. Copyright 2017 by Project Management Institute, Inc.

3. METHODOLOGICAL FRAMEWORK

3.1 Information sources

According to the Merriam-Webster Dictionary, information is defined as "knowledge obtained from investigation, study or instruction.' Information can be culled from many areas and these are classified as primary, secondary or tertiary information sources. In addition, the information collected can be from either print or online materials, through the conducting of interviews or from personal or other observations. For the purpose of this final graduation project, information will be gathered from the review and investigation of internal and external documents related to the organization and the specific subject matter, and from primary and secondary sources.

3.1.1 Primary sources

Primary sources are those that are original in nature. Jefferson Union High School District (JUHSD) (n.d.) advises that these are materials that have not been changed in any way and are "usually the first formal appearance of results in physical, print or electronic format."

For this project, the primary sources used will be:
- Interviews with the Executive Director of CDEMA and heads of departments
- Interview with procurement officer and procurement consultant
- Internal reports and other original documents
- Personal observations
- Presentations
- Course notes
- Email communications

3.1.2 Secondary sources

Secondary sources are those which derive information from primary sources. Through analysis and evaluation, they provide their own interpretation of the information provided through the primary source. Glasgow Caledonian University (GCU) (n.d.) advises that secondary information is that which "has been interpreted by somebody other than the originator."

For this project, the secondary sources used will be:
- Websites
- Previous Research
- PMI database
- A Guide to the Project Management Body of Knowledge (PMBOK guide)
- Books
- Blogs
- MPM Course Notes

Chart 3 outlines the primary information sources that will be used for this project.

Chart 3: Information sources (Source: Author of the study)

Objectives	Information sources	
	Primary	**Secondary**
To conduct an analysis of the existing procurement policies and procedures within the CDEMA CU to ascertain whether these meet best practice standards.	Survey Evaluation reports on completed projects. Procurement manuals.	Chartered Institute of Procurement & Supply. Review of other national, regional and international procurement standards and policies.

To create the project management plan which defines how the project will be executed, monitored and controlled.	Interviews	A Guide to the Project Management Body of Knowledge. Related literature on project management plans.
To develop a scope management plan to ensure that the project is completed.	Project Management Institute.	Websites for relevant material on scope management plans.
To create a sustainable cost management plan to control the project's expenditure so that it stays within budget.	Accounting and Procurement Manual. Interview with Chief Accountant.	Relevant material on cost management. Websites
To develop a schedule management plan to ensure that work is completed as per agreed terms and conditions.	Document Analysis.	Project Management Institute. Websites
To create a stakeholder management plan to ensure effective stakeholder engagement.	Interview with Communications Officer. Observation	Websites
To create a quality management plan which ensures that the outputs for the project meet specifications.	Document Analysis.	Project Management Institute. Websites
To create a human	Document Analysis	Project Management Institute.

resources management plan so that all human resources are identified and procured in a timely manner.	from previously completed projects within the organization.	Websites
To create a risk management plan which identifies the specific risks related to the project and to create solutions to manage these risks.	Observations Document Analysis.	Project Management Institute. Websites
To establish a communications management plan to ensure the timely and effective communication for the project to its stakeholders.	Interview with Communications Officer. Observations	Project Management Institute. Websites
To develop a procurement management plan to ensure the right resources are purchased for the project.	Survey Evaluation reports on completed projects. Procurement manuals.	Related literature on procurement. Websites Chartered Institute of Procurement & Supply.

3.2   Research methods

The University of New Castle Library defines research methods as "strategies, processes or techniques utilized in the collection of data or evidence for analysis in order to uncover new information or create better understanding of a topic." Glasglow Caledonian University highlights research methods that are quantitative and qualitative in nature.

To develop the project management plan for the CDEMA, the first step is to analyze the Agency's existing procurement policies and procedures. This is in an effort to identify any gaps and incorporate the resolution or closure of these gaps into the final graduation project. The qualitative research method will be used throughout the project, and information will be collected using a survey, unstructured interviews, observation, and document/content analysis.

Price, Jhangiani, Chiang, Leighton and Cuttler (2017) indicate that the qualitative researcher "collects large amounts of relatively "unfiltered" data from a relatively small number of individuals, and describe their data using nonstatistical techniques." These researchers are not concerned with statistical analysis but more in understanding behaviours and processes.

3.2.1   Surveys

Surveys are used to collect information from a select number of individuals on a particular topic in order to draw a conclusion or verify an assumption. Surveys can be delivered via telephone, in-person or online. The Virginia Polytechnic Institute and State University (n.d.) reminds us that survey questions can be open-ended or closed-ended.

3.2.2   Unstructured Interviews

Unstructured interviews are sometimes called informal interviews due to the way that the interview is conducted. There is no exact list of questions to be

answered, or no particular order in which the questions are asked; just general topics to be discussed in a conversational style. McLeod (2014) advises that these types of interviews are "more flexible as questions can be easily adapted depending on the respondents' answers." This allows for follow-up questions to be addressed if there are any clarifications required or additional details needed. In addition, they allow the generation of "qualitative data through the use of open questions which helps the researcher develop a real sense of the person's understanding of the situation." (McLeod, 2014).

3.2.3   Observation Method

Price et al (2017) define observation research as "several different types of non-experimental studies in which behavior is systematically observed and recorded." They divide observation research into several different categories including naturalistic, participant, structured, case studies, and archival. For this study, I will be using the participant observation method which Price et al. (2017) advise is where the "researchers become active participants in the group or situation they are studying." As a current employee of CDEMA, I will therefore share my experiences based on my personal observations.

3.2.4   Document/Content Analysis

This is the review of written and online materials related to the subject matter being investigated. These materials will include emails, letters, and meeting and consultant reports. According to the University of Connecticut (n.d.) this is considered the "indirect study of human behaviour though their communications."

Chart 4: Research methods (Source: Author of the study)

Objectives	Research methods			
	Survey	Unstructured Interviews	Document/Content Analysis	Observation
To conduct an analysis of the existing procurement policies and procedures within the CDEMA CU to ascertain whether these meet best practice standards.	This method will be used to analyze the existing procurement policies and procedures within the organization.	Discussions will also be held with current staff involved in the procurement process to gain further insight on the effectiveness and efficiency of the process.	This method will be used to analyze the existing procurement policies and procedures within the organization by reviewing the Procurement & Contract Management Policies & Procedures Manual (March 2018).	
To create the project management plan which defines how the project will be executed, monitored and controlled.			This method will be used to identify the gaps existing and to identify a suitable project management plan which would build capacity within the organization by reviewing the results of the survey and comparing the results to the global best practice standards set by the Chartered Institute of Procurement and Supply and ISO 20400.2017. In addition, materials on project management plans will also be reviewed to ensure that best practice standards are successfully incorporated.	
To develop a scope management plan to ensure that the project is completed successfully.		This method will be used in the development of the scope management plan to ensure that all activities are identified and appropriate decisions are made in relation to the scope management plan.	This method will be used to review and collate information pertinent to the project and for input into the scope management plan. In addition, materials on scope management plans will also be reviewed to ensure that best	

		practice standards are incorporated.	
To create a sustainable cost management plan to control the project's expenditure so that it stays within budget.		This method will be used in the development of the cost management plan to ensure that all activities are accurately costed and appropriate decisions are made in relation to the cost management plan. An interview with the Chief Accountant of CDEMA will be conducted.	Materials on sustainable cost management plans will also be reviewed to ensure that best practice standards are incorporated.
To develop a schedule management plan to ensure that work is completed as per agreed terms and conditions.		A discussion with the Procurement Officer at CDEMA will also be undertaken to ensure the schedule management plan is in alignment with other activities scheduled.	Materials on schedule management plans will also be reviewed to ensure that best practice standards are incorporated.
To create a stakeholder management plan to ensure effective stakeholder engagement.		This method will be used in the development of the stakeholder management plan to ensure stakeholder needs are achievable and clearly articulated in the stakeholder engagement plan. Interviews with the Communications Officer and Procurement Officer will also be conducted.	Organizational documents will also be reviewed to ensure that key stakeholders are included for engagement.
To create a quality management plan which ensures that the outputs for the project meet specifications.			This method will be used to review and collate information pertinent to the project and for input into the quality management plan.

In addition, materials on quality |

			management plans will also be reviewed to ensure that best practice standards are incorporated.	
To create a human resources management plan so that all human resources are identified and procured in a timely manner.	This method will be used to analyze the existing human resources needs of the organization.		This method will be used to review and collate information pertinent to the project and for input into the human resources management plan. In addition, materials on human resources management plans will also be reviewed to ensure that best practice standards are incorporated.	
To create a risk management plan which identifies the specific risks related to the project and to create solutions to manage these risks.			This method will be used to review and collate information pertinent to the project and for input into the risk management plan. In addition, materials on risk management plans will also be reviewed to ensure that best practice standards are incorporated.	
To establish a communications management plan to ensure the timely and effective communication for the project to its stakeholders.		This method will be used in the development of the communications management plan to ensure the timely and effective delivery of communication to project stakeholders. An interview will be conducted with the Communications Officer.		
To develop a procurement		This method will be used	This method will be used to review	

management plan to ensure the right resources are purchased for the project.		in the development of the procurement management plan to ensure the identification of all external and internal resources required for the procurement management plan. An interview will be conducted with the Procurement Specialist.	and collate information pertinent to the project and for input into the project management plan. In addition, materials on procurement management plans will also be reviewed to ensure that best practice standards are incorporated. A review of recommendations of best practices from the internationally recognized Chartered Institute of Procurement & Supply, as well as other national and regional best practices.	

3.3   Tools

According to the Glossary of Project Management Terms (n.d.) tools are defined as "something tangible, such as a template or software program, used in performing an activity to produce a product or result."

For this project several tools will be utilized to achieve each result and these can be found in the Chart 5 below.

Chart 5: Tools (Source: Author of the study)

Objectives	Tools
To conduct an analysis of the existing procurement policies and procedures within the CDEMA CU to ascertain whether these meet best practice standards.	Survey Expert Judgement Document/Content Analysis
To create the project management plan which defines how the project will be executed, monitored and controlled.	Project Management Plan template Project Charter Expert Judgement Data Gathering: Brainstorming and Interviews Document/Content Analysis
To develop a scope management plan to ensure that the project is completed successfully.	Scope Management Plan Template Data Gathering: Interviews Document/Content Analysis Expert Judgement
To create a sustainable cost management plan to control the project's expenditure so that it stays within budget.	Cost Management Plan Template Interviews Observations Document/Content Analysis Expert Judgement
To develop a schedule management plan to ensure that work is completed as per agreed terms and conditions.	Schedule Management Plan Template Document/Content Analysis Expert Judgement Resource optimization Work Breakdown Schedule Pro
To create a stakeholder management plan to ensure effective stakeholder engagement.	Stakeholder Management Plan Template

	Interviews
	Document/Content Analysis
	Data Gathering: Brainstorming
	Data Representation
	Expert Judgement
To create a quality management plan which ensures that the outputs for the project meet specifications.	Quality Management Plan Template
	Data Gathering: Brainstorming
	Data Analysis
	Expert Judgement
To create a human resources management plan so that all human resources are identified and procured in a timely manner	Meetings
	Surveys
	Data Gathering: Brainstorming
	Data Analysis
	Expert Judgement
	Decision making
To create a risk management plan which identifies the specific risks related to the project and to create solutions to manage these risks.	Risk Management Plan Template
	Data Analysis
	Document/Content Analysis
	Risk Categorization
	Risk Strategies
	Expert Judgement
To establish a communications management plan to ensure the timely and effective communication for the project to its stakeholders.	Communications Management Plan Template
	Communications Requirements Analysis
	Communication Technology
	Communication Methods
	Interviews
	Document/Content Analysis
	Expert Judgement

To develop a procurement management plan to ensure the right resources are purchased for the project.	Procurement Management Plan Template Interviews Observations Document/Content Analysis Data Gathering Expert Judgement

3.4 Assumptions and constraints

According to the Project Management Institute (2017) assumptions are defined as "a factor in the planning process that is considered to be true, real, or certain, without proof or demonstration."

According to the Project Management Institute (2017) constraints are "a limiting factor that affects the execution of a project, program, portfolio, or process."

The assumptions and constraints are:

Assumptions
• It is assumed that the project will be completed within scope, schedule and cost. • Project scope will remain the same and will not change after the project has been signed off on. • Project staff will be hired on time. • Project costs will stay as orignially budgeted. • Subject matter experts will be available to provide input into the project. • Deliverables will be completed within schedule and cost, and quality standards met. It is assumed that funding will be available for the implementation of the project. • Stakeholder expectations remain the same throughout the duration of the project.

- It is assumed that the Project Manager will fully understand the information contained in the project document.
- It is assumed that the Agency will continue to support the project through the provisions of information and human resources.
- Facilities will be available for project staff.

Constraints

- Timeframe for the project is very short.
- Personnel available to implement project – 1 person.
- Must work within limited timeframe for the creation of the project document.
- Schedule of subject matter experiences is quite irregular, and subject to change at short notice.
- Limited availability of subject matter experts within the Caribbean region.
- Stakeholder expectations change during the project.
- Deliverable will meet current best practices procurement standards
- Budget must not exceed USD $150,000.00

Chart 6: Assumptions and constraints (Source: Author of the Study)

Objectives	Assumptions	Constraints
To conduct an analysis of the existing procurement policies and procedures within the CDEMA CU to ascertain whether these meet best practice standards.	Analysis will be completed on time. Documentation required is readily available and easily accessible.	Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To create the project management plan which defines how the project will be	The plan will be accepted by its key	Some components may not be completed

Objectives	Assumptions	Constraints
executed, monitored and controlled.	stakeholders (sponsor(s), organization and project staff).	on time or to the PMI standard. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To develop a scope management plan to ensure that the project is completed successfully.	Scope Management Plan will be accepted by key stakeholders (sponsor(s) and organization.	The unavailability of information required to define the scope. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To create a sustainable cost management plan to control the project's expenditure so that it stays within budget.	All costs related to the project will be included in the plan. Costs will be sustainable and alternative options	Limited budget available for the project. Limited no-cost solutions available.

Objectives	Assumptions	Constraints
	costed to ensure budget is not exceeded.	
To develop a schedule management plan to ensure that work is completed as per agreed terms and conditions.	Delivery times and availability of items will be as outlined in the plan.	Delays from management or project team in approving activities which may cause the project to be delayed. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To create a stakeholder management plan to ensure effective stakeholder engagement.	Stakeholder interests will remain the same throughout the project's execution.	Stakeholder expectations/interest may change. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To create a quality management plan	The Quality	Materials not available

Objectives	Assumptions	Constraints
which ensure that the outputs for the project meet specifications.	Management Plan will meet the needs of the stakeholders and there will be no defects.	at the time required and the cost originally budgeted. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To create a human resources management plan so that all human resources are identified and procured in a timely manner.	All required resources were identified and included in the plan. All required resources can be found within the cost identified. All relevant subject matter experts required are available locally or regionally.	Human resources not available at the time required. This may be due to cost or lack of available expertise within the region. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To create a risk management plan which identifies specific risks related to the project and to create solutions to	All risks will be identified during the initial phase.	Limited risks identified. New, high risks pop up

Objectives	Assumptions	Constraints
manage these risks.	Any risks not identified earlier will be easy to mitigate.	which are not easily mitigated against. These may delay the project or increase costs. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.
To establish a communications management plan to ensure the timely and effective communication for the project to its stakeholders.	Communications plan will meet the needs of its stakeholders. Communication will be timely and relevant. Communications staff will be adequate to meet the needs of the plan. Relevant communications tools are available to meet the needs of the plan	Not enough expert judgement or communications tools available. Communications plan for the CDEMA may be limited due to personnel assigned to that department.

Objectives	Assumptions	Constraints
	and to ensure that messages are shared through differing tools to expand the communications reach. Communications budget will be adequate to meet the needs of the plan.	
To develop a procurement management plan to ensure the right resources are purchased for the project.	Procurement plan will be adhered to. No additional resources will be required. Resource costs will be as outlined in the plan with no overages.	Not enough subject matter experts available in the region. Delays in procuring items which may result in project overruns. Impact of disasters on CDEMA Participating States may cause delays in implementation as the Coordinating Unit may need to activate its response operations.

3.5   Deliverables

PMI (2017) defines a deliverable as "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. The chart below highlights the summary deliverables for this project.

Chart 7: Deliverables (Source: Author of the study)

Objectives	Deliverables
To conduct an analysis of the existing procurement policies and procedures within the CDEMA CU to ascertain whether these meet best practice standards.	A report on the current procurement policies and procedures.
To create the project management plan which defines how the project will be executed, monitored and controlled.	Approved project management plan for the execution, monitoring and controlling of the project.
To develop a scope management plan to ensure that the project is completed successfully.	Approved scope management plan for the successful completion of the project.
To create a sustainable cost management plan to control the project's expenditure so that it stays within budget.	Approved sustainable cost management plan for controlling the project's costs.
To develop a schedule management plan to ensure that work is completed as per agreed terms and conditions.	Approved schedule management plan for managing the project's schedule.
To create a stakeholder management plan to ensure effective stakeholder engagement.	Approved stakeholder management plan to ensure stakeholder satisfaction is optimal.
To create a quality management plan which	Approved quality management plan

ensure that the outputs for the project meet specifications.	to ensure that the project's quality meets the stakeholders' standards.
To create a human resources management plan so that all human resources are identified and procured in a timely manner.	Approved human resources management plan to ensure the project's resources are acquired.
To create a risk management plan which identifies the specific risks related to the project and to create solutions to manage these risks.	Approved risk management plan for managing the project's risks.
To establish a communications management plan to ensure the timely and effective communication for the project to its stakeholders.	Approved communications management plan for managing the project's communications.
To develop a procurement management plan to ensure the right resources are purchased for the project.	Approved procurement management plan for the procurement of the project's resources.

4 RESULTS

4.1 Analysis of the existing procurement policies and procedures

An analysis of the existing procurement policies and procedures within the CDEMA CU was conducted to ascertain whether these met with international best practice standards.

A survey was created (Appendix 5) and shared with current and former employees of the CDEMA CU. In addition, 2 unstructured interviews were conducted and a review of the organization's current procurement policy undertaken. The results of each are highlighted below. These tools were utilized to collect information on the current status of procurement within the organization.

The survey was used as a tool to quickly gather information on the level of knowledge of procurement within the CDEMA CU. Questions included in the survey were crafted with the intent to get specific information on the organization's procurement strategy, general knowledge of the procurement process, and trainings offered on procurement during the respondent's employment with the organization. The questions for the unstructured interview were asked in an adhoc manner based on discussions with each employee.

4.1.1 Survey Results

At the time that the survey was distributed, the organization was very lean with only 18 employees. The survey was shared with 15 combined current and previous employees of the CDEMA CU. 10 persons responded to the survey in the timeframe requested for results, and this represented 66.67% of the total population surveyed. The survey was conducted using Google Forms and the responses collected were anonymous. Past and current employees surveyed ranged from the Customer Service Representative to some functional managers. The survey questions are appended to this document on #5, and the full results of the survey are on Appendix 6. Below are some of the findings from the survey:

1. How long have you worked for the organization?

10 responses
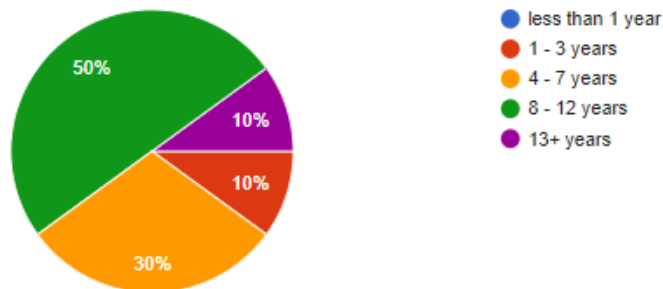
- The majority of the respondents have worked with the organization for over 4 years. 90% of those who took the survey have worked with the CDEMA CU for at least 4 years. Given their employment with the organization, it is expected that these employee would have undertaken at least one training on procurement management. All respondents who completed the survey have worked with the CDEMA CU for at least one year.

2. Does the CDEMA CU have a standardized procurement policy, strategy and plan?

10 responses
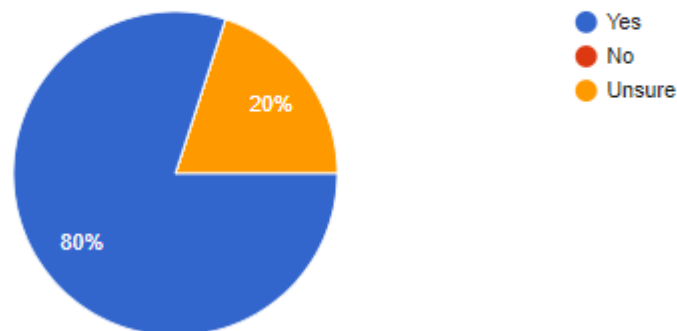
- 80% of the respondents confirmed that the organization does indeed have a standardized procurement policy, strategy and plan, but 2 of them were unsure whether this exists within the Agency. In contrast, 6 respondents were unsure whether the Agency had an updated procurement process flow. This number aligns with the finding above where 80% of respondents were employed with the organization for at least 4 years. It is therefore

expected that these employees would have some knowledge of the procurement and the level of information known especially given that some employees are still unfamiliar with the procurement process flow.

3. Is there an updated procurement process flow?

10 responses
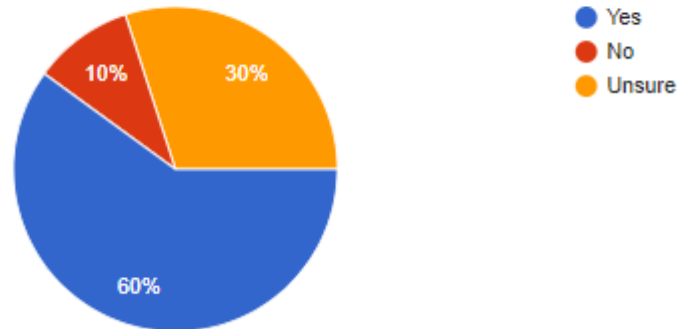
- The process flow is a visual representation of how procurement is handled within the organization. A simple procurement process flow as outlined by West Virginia Office of Technology is shared below. This process flow can serve as a guide for the CDEMA CU in outlining the procurement process flow from the time the procurement need has been identified, until it has been fulfilled, and through the end of the procurement contract. Employees within the CDEMA CU and other key stakeholders will have a clear understanding of the process, and vendors/suppliers will understand the requirements for engaging in procurement with the Agency.
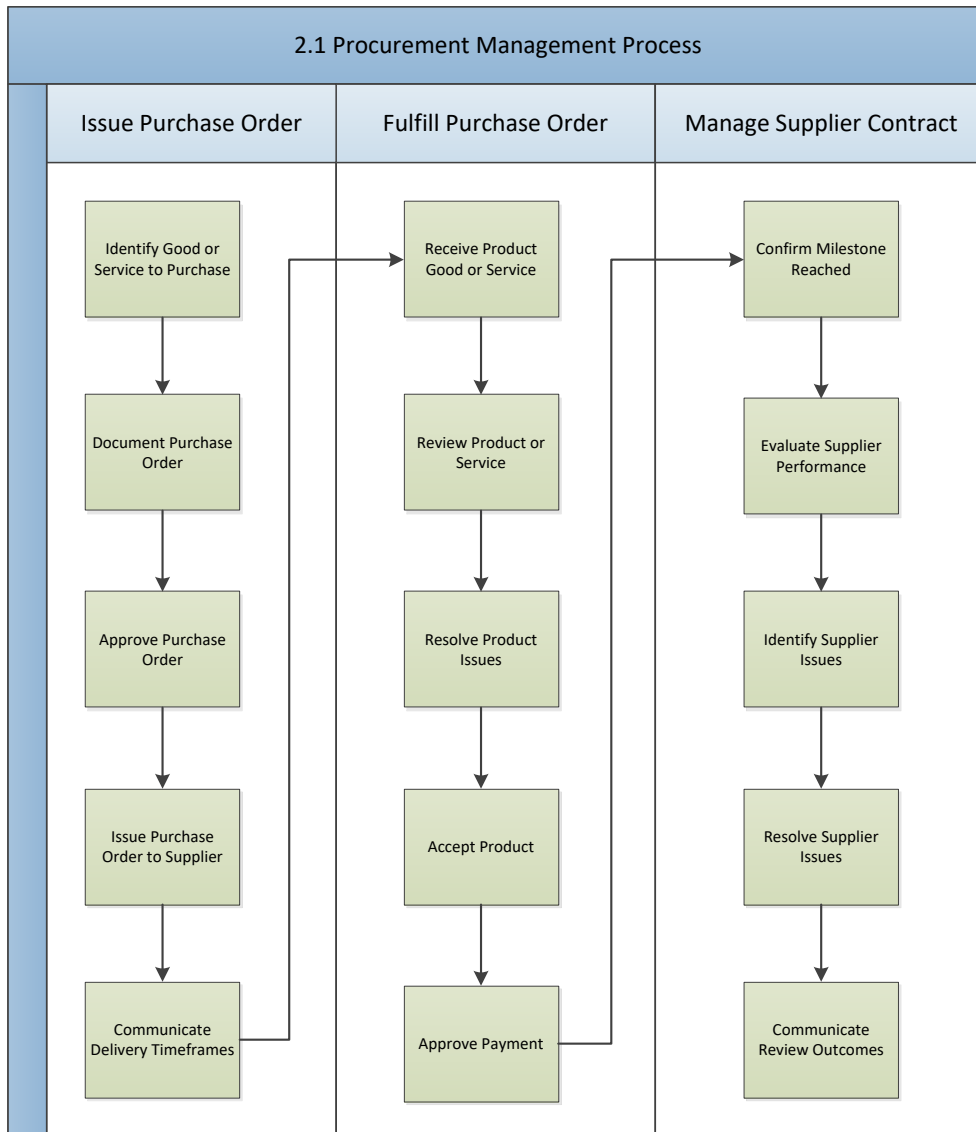
Figure 12: Procurement Management Process. Reprinted from **Procurement Management Office documents online at https://technology.wv.gov/ProductsAndServices/pmo/Pages/default.aspx**

4. Are you familiar with the procurement policies within the CDEMA CU?

10 responses
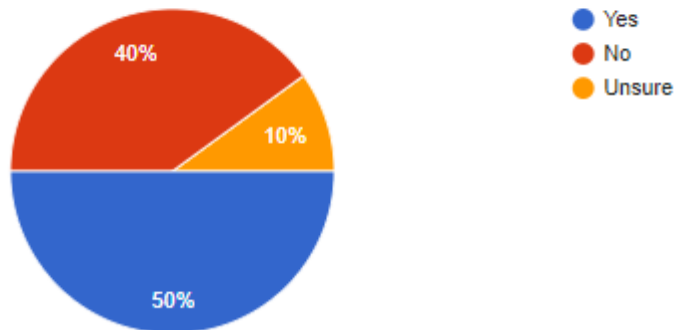
- 50% of respondents were familiar with the organization's procurement policies, whilst 40% acknowledged that they were not familiar and 2 respondents were unsure.
- 90% noted that there is no standalone procurement department within the organization.
- 60% of staff identified 1 staff member with procurement responsibilities, whilst 40% identified 2 – 4 persons with this responsibility.
- 90% do not believe that the procurement department is adequately staffed, and therefore, cannot handle the Agency's procurement needs.

The recommendation would be that the organization implement an awareness procurement activity where staff will receive training on the procurment strategy and understand the procurement process. With such a small organization, it is anticipated that almost all staff will be involved in at least one procurement activity which may include communicating the process to key stakeholders. In addition to this training and awareness activity, the organization should also consider increasing the number of employees who work within the procurement department.

7. Do you believe that the Procurement Unit/Department is adequately staffed to handle the Agency's procurement needs?

10 responses
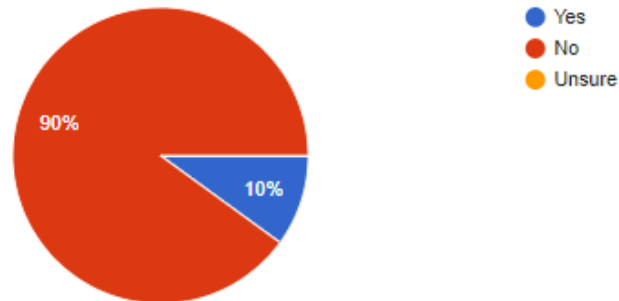
- 8 persons have received some type of procurement training since being employed by the organization.
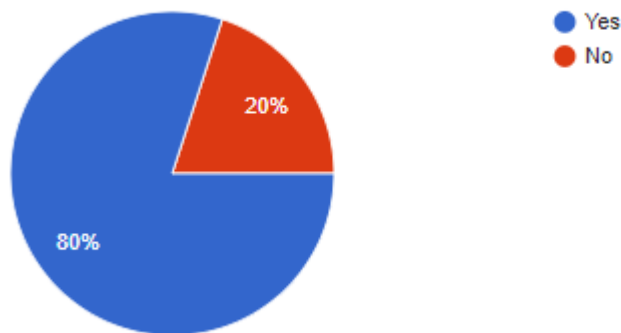
- 2 persons felt that the organization's key stakeholders (Participating States and Partners) are fully aware of its procurement strategy.
- 2 persons felt that the organization's procurement strategy is readily available to the public.
- 80% were either unsure or felt that the organization does not follow best practice standards in procurement.
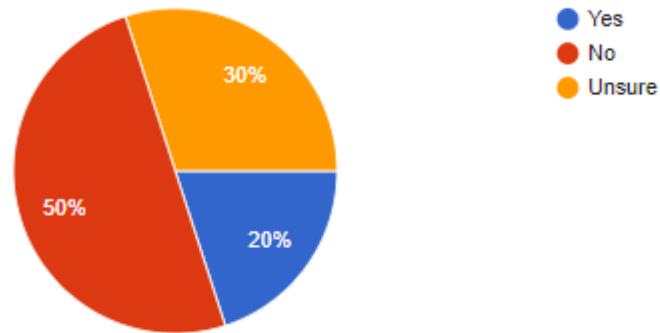
- In the chart below, the following comments were shared to improve procurement within the organization:

Chart 8: Recommendations to improve procurement within the CDEMA CU (Source: Author of the study)

Pillar	Comment	Recommendations
Process	A "solid" implementation plan with additional staffing	Create a procurement plan for the organization which includes resources required to ensure the effective management of procurement.
	Internal audit function is required to ensure that procedures are being followed.	Conduct an internal audit of the procurement function to verify whether current procedures are optimal and share recommendations for improvements as needed.
Policies	➢ If there's a procurement plan, policy or strategy for the Agency then it should be shared with staff and training in the application facilitated. A procurement plan has yet not been	Share procurement strategy and policy as part of the organization's onboarding process.

	developed for the entire Agency only specific projects. The development of such a plan will also help the Agency with its procurement process as will help to identify timeframes and type of procurement to be used at an early stage.	
Training	➢ Further training for staff and stakeholders. ➢ More staffing for the procurement department. ➢ Training for staff in the procurement policy. ➢ Do an internal training for all staff to become familiar with the procurement process. ➢ Although the Agency has a procurement policy, it is very new, therefore, staff are not fully on board with the new procedures and some still operate from what was practiced and not what the new policy entails that they do. Training on the new policy needs to be undertaken with all staff.	Provide basic training on procurement as part of the onboarding process, and offer more detailed training to staff with procurement responsibilities. Additional training should also be provided as policies and procedures are updated.
Resources	➢ The Procurement department needs to be properly staffed, as it is currently a shared role.	Given the size of the organization and the volume of activities for the Procurement Specialist at least one additional procurement position should be added. These two officers should not have

		additional shared responsibilities.

From the responses received from the survey, it is clear that some form of training is required to familiarize staff with the procurement strategy, policy and process. A refresher course may be required for some or an extended training for others depending on their knowledge of these processes.

CDEMA has been in existence for over 25 years, and as the lead CARICOM agency with responsibility for disaster manager, millions of funds are used to procure technical and other resources in order for the Agency to continue fulfilling its mandate. In March 2018, the Agency acknowledged that after receiving several recommendations to improve their procurement practices, they engaged in a consultancy with the Caribbean Development Bank which sought to implement new procurement and contract management procedures to facilitate and streamline an efficient use of their resource pool including disaster management funds. This project will seek to build on findings from that consultancy and review lessons learnt as a means of continuous improvement.

A project management plan has therefore been created which will outline the processes required for the project to be implemented successfully.

4.1.2   **Findings from Unstructured Interviews**

This unstructured interviews were conducted to find out whether the current procurement policies and procedures met with best practice standards. Interviews were conducted with two current staff members who requested anonymity. The interviews sought to get their perspective on the current procurement policies and procedures within the Agency. As such, the employees were free to share their perspectives and additional follow-up questions were only asked in an effort to provide clarity to the process. Each interviewee was asked the length of time they have been with the Agency and their respective roles in the Procurement process.

The respondents' answers are provided at Chart Number 9 below.

Chart 9: Findings from Unstructured Interviews (Source: Author of the study)

Respondent	Response	Recommendations
Number 1:	Although there is a current procurement policy, this is not strictly adhered to. In addition, each project follows their own procurement guidelines whether it be those for the European Union, Government of Canada or The Caribbean Development Bank, just to name a few. This tends to create some differences in the way that per diem arrangements are paid as well as the awarding of contracts. This has caused some challenges were multiple projects are providing financial support to one consultancy; for example training. The rules for one sponsor may dictate that recipients be awarded using the UN Per Diem Rules, whilst the rules for another sponsor may dictate that awards be processed using the European Union per diem guidelines. This can create not only confusion amongst the project's recipients, but also for the administration, accounting and procurement staff when it comes to differentiating these awards. Although the organization does have its own procurement	Created standardized procurement policies and procedures for the organization. The organization can cull some best practice standards from already established procurement policies from its regional and international partners and incorporate into its own processes.

	policy, it usually follows the procurement guidelines of the sponsor and does not enforce that of the organization.	
Number 2:	The organization offers a biennial conference with different donors and sponsors providing varying levels of financial and technical support. During discussions Respondent #2 who works closely with the Procurement Officer for the organization's biennial conference, advised that procurement for this event poses a number of challenges primarily around financial reporting. Each donor has their own guidelines which has to be followed, and for a conference of this magnitude numerous financial and narrative reports have to be prepared. Reporting on the financial reports requires a review of each donor's expenditure to ensure that their procurement policies were followed. For example; for those sponsored by the European Union, there is a contingency which allows for expenditures less than Euro 10,000 to be acquired through sole sourcing. Sole sourcing applies when only one supplier for the required good or service is available. This is very common in the Caribbean where goods and services may be unavailable, and if available, offered at a premium. However, sole	Created standardized procurement policies and procedures for the organization. The organization can cull some best practice standards from already established procurement policies from its regional and international partners and incorporate into its own processes. Share final document with key stakeholders and provide training to staff of the CDEMA CU.

	sourcing does require a rationalization as to why this method was selected, and why the specific vendor was chosen.	
	Procurement for the conference can be a challenge for the Procurement Officer and Project Accountant, as it will require them both to understand the procurement terms and conditions for each sponsor.	

4.1.3   Findings from Document Analysis

In reviewing the Organization's Procurement & Contract Management Policies & Procedures Manual, I wish to note that great strides have been made since the previous iteration of this document. The manual was created through a consultancy by the Caribbean Development Bank in Barbados. The consultancy included an analysis of the organization's previous procurement activities and provided recommendations for enhancing its existing procedures. These included the following:

- a formalized structure for procurement and contract management;
- the addition of a procurement officer on CDEMA's team; and
- a more transparent process that will allow the private sector to identify opportunities, access contract award information and understand their rights and responsibilities.

Of special note in the document is that the Agency has committed to the preparation of a procurement plan. Ernst and Young advises that the procurement function should have a detailed map which outlines spending across the entire organization's budget line. Each unit within the Agency should have their own procurement plan which should feed up into the wider procurement plan for the Agency. Comparisons will be made across each unit to eliminate duplicate resource requests.

The Procurement and Contracts manual advises of the different types of procurement for each type of investment which will be differentiated by the scope of the bidding process; the criteria used to select the winning bidder; and the type of contract to be signed. Guidance was shared on the methodology to be used when selecting individual versus group consultants. Other recommendations from Ernst and Young's 2016 publication on best practices for successful procurement functions include having a sustainable cost management plan across the organization; engaging internal stakeholders on the cost-saving benefits

associated with planning for procurement; and ensuring that value is built into the process so that the Agency recognizes value for money.

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Approved by:

_____ Date: _____

CDEMA COORDINATING UNIT A̲C̲C̲E̲P̲T̲A̲N̲C̲E̲

Approved by:

_____ Date: _____

4.2 SCOPE MANAGEMENT PLAN

4.2.1 Scope Management Plan Introduction

The scope management plan is a component of the Project Management Plan. The plan will outline the scope management approach, roles and responsibilities and processes. In addition, the plan will ensure that the project is completed successfully and that only those activities required to complete the project are done in a timely and cost efficient manner.

The project will be hosted at CDEMA's headquarters in Barbados. The scope of work in this project is limited to the creation of a project management plan to standardize procurement practices within the CDEMA CU. Currently, the organisation has a procurement policy which is not strictly adhered to. Different projects may use different procurement strategies dependant on the requirements of the project's sponsor. As a result, this project will seek to standardize procurement across the organization and all projects.

Limited personnel will be required for the project. It is anticipated that a Project Manager will be required to oversee the project, but the bulk of the financial resources will be used for the communications consultancy. The Project Accountant and any administrative support will be considered in-kind contributions from the CDEMA Coordinating Unit.

4.2.2 Scope Management Plan Approach

Plan Scope Management is the process of creating a scope management plan that documents how the project and product scope will be defined, validated and controlled. The key benefit of this for the project is that it will provide guidance and direction to all stakeholders (internal and external) on how the scope will be managed throughout the project (PMI, 2017).

For this project, the development of the Scope Management Approach will be the responsibility of the Project Manager. The Project Manager will use the project charter, the project management plan and receive input from the project's sponsor and the organization implementing the project (CDEMA CU) as inputs into this process. The Project Manager will establish documentation for measuring the project's scope and this will be reviewed and approved or recommended changes made by the Project's sponsor and implementing agency. The project's scope is defined by the WBS and WBS Dictionary, as well as the Scope Statement. The chart below summarizes the processes for each aspect of the Scope Management Plan.

Chart 10: Scope Management Plan Summary (Source: Author of the study)

Processes	Activities	Results
Plan scope management	1. Create scope management plan which will document how the project and product scope will be defined, validated and controlled (PMI, 2017).	Approved scope management plan.
Collect Requirements	2. The process of determining, documenting, and managing stakeholders' needs and requirements to meet project objectives (PMI, 2017).	Requirements for project identified.
Define Scope	3. The process of developing a detailed description of the project and product (PMI, 2017).	Approved definition of project and product scope.
Create WBS	4. The process of subdividing project deliverables and project work into smaller, more manageable components (PMI, 2017).	Approved WBS.
Validate Scope	5. The process of formalizing acceptance of the completed project deliverables (PMI, 2017).	
Control Scope	6. The process of monitoring the status of the project and product scope and managing changes to the scope baseline (PMI, 2017).	Approved control process. Approved change control process.

4.2.3 Plan Scope Management

During this phase, the Project Manager will review the project charter and project management plans already created as inputs into this process. During the

planning phase of the project, meetings will be convened with the project sponsor, as well as the implementing partner (the CDEMA CU).

Given that the CDEMA CU has implemented similar projects which focused on increasing technical capacities through training both at the national and regional level, these projects will be reviewed and lessons learned culled to improve the success of this project. In addition, CDEMA's already established policies and procedures on procurement will be reviewed to avoid duplication of resources, and their subject matter experts will be engaged to capture agency and industry specific information for the project.

Given the size and scope of the project, the collect requirements process will be captured during this stage. Requirements will be collected from interviews with key stakeholders.

4.2.4   Roles and Responsibilities

The Project Manager, Project Management Team, Project Sponsor and the Organization will have key roles in determining and controlling the project's scope. The chart below outlines each person's role and responsibility in the Scope Management process.

Chart 11: Scope Management Roles and Responsibilities (Source: author)

ROLE	RESPONSIBILITIES
Project Sponsor	• Provides financial support to the organization for the implementation of the Project. • Collects requirements. • Ensures that the project delivers its deliverables as agreed. • Works closely with the Project Manager to

	ensure that the organization's needs are closely aligned with that of the sponsor. • Approves the project's deliverables. • Provides additional funds for scope change. • Reviews scope change requests. • Approves or denies scope change requests. • Co-Leads the Project Board.
Implementing Agency – CDEMA CU	• Provides technical support to the Project • Ensures that the project delivers its deliverables as agreed. • Works closely with the Project Manager to ensure that the organization's needs are identified and linked to the project. • Approves the project's deliverables. • Reviews scope change requests. • Approves or denies scope change requests. • Co-Leads the Project Board.
Project Manager	• Measures and verifies project scope. • Facilitates scope change requests. • Facilitates impact assessments of scope change requests. • Organizes and facilitates scheduled change control meetings. • Communicates outcomes of scope change requests. • Updates project documents upon approval of all scope changes.
Project Team	• Measure and verify project scope. • Validate scope change requests. • Participate in impact assessments of scope

	change requests.
	• Communicate outcomes of scope change requests to team.
	• Facilitate team level change review process.
Project Board	• Receive scope change requests.
	• Review scope change requests.
	• Approve or deny scope change requests.

4.2.5 Product Scope Description

The product of this project is the Project Management Plan. This plan is designed to standardize the procurement policy and procedure for the CDEMA Coordinating Unit. The project will also seek to maximize resources and reduce redundancies by having one policy and procedure for procurement management which ensures alignment with internationally recognized standards.

The Project Management Plan will include all subsidiary plans which will cover the project management knowledge areas and processes. Only internal personnel and resources may be utilized for this project with the exception of the hiring of the Project Manager for a 6-month period, and the consultant for the development of the training plan, and implementation of training to key stakeholders. The project's budget should not exceed USD $150,000.00.

4.2.6 Measures of Project's Success

The project's success will be realized once:

- Once the project management plan is accepted by the CDEMA CU.
- A clear scope management plan is developed which clearly identifies the work to be completed, including timeline and costs.
- A schedule management plan is developed which outlines timelines for the effective delivery of the project's deliverables.

- A stakeholder management plan is developed which identifies key stakeholders and their contributions to the project.

- A communications plan is developed which guarantees the timely delivery of information to the project's stakeholders.

- A human resources plan is developed which identifies the key staff members required for the successful implementation of the project.

- A procurement plan is developed which identifies the resources required for the project ensuring that these resources are procured at the time and costs highlighted in the plan.

4.2.7 Scope Control

Scope control is the process of monitoring the status of the project and product and managing changes to the scope baseline (PMI, 2017). The scope of the project will be controlled by the Project Manager with inputs from the Project Team. The project team will ensure that only the work authorized through the Work Breakdown Schedule is completed and ensure that the project stays within schedule and budget. As lead, the Project Management will review monthly progress reports as submitted by the team members. The Project Manager will lead the project team and monitor their activities and progress throughout the project's life cycle.

To control scope the Project Manager will review the Scope Management Plan, Change Control Plan and Requirements Management Plan. The baseline for this project will be the current status of procurement within the organization. The key benefit of the scope control function is that it allows the scope baseline to be maintained throughout the project through continuous monitoring and evaluating. Tools utilized to measure the difference in variance (current vs future state) will be a variance analysis which will highlight the impact of change after the project has been successfully implemented.

4.2.8   Scope Change

The Project Sponsor, Organization or any other key stakeholder may request changes to the project during the project's life cycle. The Project Manager will ensure that the change process is clear and concise and communicated to all stakeholders. Requests will be categorized based on the following thresholds:

- Change requests which may cost less than $10,000: these can be approved by the Project Manager.
- Change requests which may cost between $10,000 to $30,000: these can be approved by the Project Sponsor.
- Change requests which may cost in excess of $30,000: can only be approved by the Project Board.

The Change Management Process will be as outlined below:

1. Change Requests must be submitted to the Project Manager who will log them into the Change Management System.
2. The Project Manager will review the requests to ascertain its relevance and level of importance given the stage of the project.
3. If the Project Manager believes that there is some level of substance to the request, he will look for alternatives in the off chance that the request is approved.
4. The Project Manager will evaluate the impact of the request on the project's scope, budget and schedule.
5. Submit to the Project Board for review and decision-making if outside the PM's level for approval.
6. If approved, the Project's Sponsor will formally accept the change by signing off on the project change control document. (Appendix 8)
7. The Project Manager will update the project's documents and advise the project's stakeholders of the approved change and its impact on the project.

4.2.9 Scope Validation

The Project Management Institute defines this as the process of formalizing acceptance of the completed project deliverables (PMI, 2017). Scope validation will be conducted through continuous monitoring and evaluating of the Project. The Project Manager is the owner of this process, and he will compare progress against the original scope statement, WBS and WBS Dictionary. Once the deliverable has been finalized, it will be shared with the Project Sponsor for acceptance. If acceptable, the Project Sponsor will sign off on the document and this will become part of the project's official documents, which will then be presented to the Project Board at the next meeting. This will ensure transparency and accountability prior to sharing with the project's recipients.

4.2.10 WBS and Dictionary

The WBS was created to make the project more manageable. The key benefits of this process is that it provides a framework of what has to be delivered (PMI, 2017). The WBS and WBS Dictionary for the project including the creation of the project management plans and delivery of training are provided below. The Scope Management Plan and project documents were used as inputs into this process and expert judgement used to create each WBS. The organization already has a template for consultancy training, so this breakdown was used in the WBS for the training component.

Chart 12: WBS for Project Management Plans (Source: author)

Outline Number	Task Name	Duration	Start	Finish
1	**Chapter 4: Results**	**30 days?**	**Mon 9/2/19**	**Sat 10/12/19**
1.1	**Standardize Procurement Project**	**30 days?**	**Mon 9/2/19**	**Sat 10/12/19**

1.1.1	**Analysis of Current State**	**20 days?**	**Mon 9/2/19**	**Sun 9/29/19**
1.1.1.1	Survey Results reviewed	3 days?	Mon 9/23/19	Wed 9/25/19
1.1.1.2	Data from Unstructured Interviews reviewed	1 day?	Fri 9/27/19	Sun 9/29/19
1.1.1.3	Document Analysis	15 days?	Mon 9/2/19	Fri 9/20/19
1.1.2	**Project Management Plan**	**10 days?**	**Mon 9/30/19**	**Sat 10/12/19**
1.1.2.1	**Scope Management Plan created**	**6 days?**	**Mon 9/30/19**	**Mon 10/7/19**
1.1.2.1.1	Scope Management Plan Introduction	2 days	Mon 9/30/19	Tue 10/1/19
1.1.2.1.2	Scope Management Plan Approach	2 days	Tue 10/1/19	Wed 10/2/19
1.1.2.1.3	Define Roles and Responsibilities	1 day?	Thu 10/3/19	Thu 10/3/19
1.1.2.1.4	Product Scope Description	1 day?	Thu 10/3/19	Thu 10/3/19
1.1.2.1.5	Measures of Project's Success	1 day?	Thu 10/3/19	Thu 10/3/19
1.1.2.1.6	Scope Success	1 day?	Fri 10/4/19	Fri 10/4/19
1.1.2.1.7	Scope Control	1 day?	Fri 10/4/19	Fri 10/4/19
1.1.2.1.8	Scope Change	1 day?	Fri 10/4/19	Fri 10/4/19
1.1.2.1.9	Scope Verification	0 days?	Sat 10/5/19	Sat 10/5/19
1.1.2.1.10	WBS and WBS Dictionary	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.1.11	Scope Acceptance Criteria	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.2	**Cost Management Plan created**	**3 days?**	**Thu 10/3/19**	**Mon 10/7/19**
1.1.2.2.1	Cost Management Plan Introduction	2 days	Thu 10/3/19	Fri 10/4/19
1.1.2.2.2	Cost Management Plan Approach	1 day?	Fri 10/4/19	Sat 10/5/19
1.1.2.2.3	Role and Responsibilities	1 day?	Fri 10/4/19	Sat 10/5/19
1.1.2.2.4	Define how costs will be measured	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.2.5	Reporting Costs	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.3	**Schedule Management Plan created**	**3 days?**	**Mon 10/7/19**	**Wed 10/9/19**
1.1.2.3.1	Schedule Management Plan	2 days?	Mon 10/7/19	Tue 10/8/19

	Introduction			
1.1.2.3.2	Schedule Management Approach	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.3.3	Role and Responsibilities	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.3.4	Schedule Control	1 day	Tue 10/8/19	Tue 10/8/19
1.1.2.3.5	Schedule Change	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.4	**Stakeholder Management Plan created**	**1 day?**	**Tue 10/8/19**	**Tue 10/8/19**
1.1.2.4.1	Stakeholder Management Plan Introduction	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.2	Roles and Responsibilities	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.3	Identify Stakeholders	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.4	Stakeholder Analysis	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.5	Manage Stakeholder Engagement	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.6	Control Stakeholder Engagement	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.5	**Quality Management Plan created**	**1 day?**	**Wed 10/9/19**	**Wed 10/9/19**
1.1.2.5.1	Quality Management Plan Introduction	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.5.2	Quality Management Plan Approach	0 days?	Wed 10/9/19	Wed 10/9/19
1.1.2.6	**Human Resources Plan created**	**1 day?**	**Wed 10/9/19**	**Wed 10/9/19**
1.1.2.6.1	Human Resources Plan Management Introduction	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.6.2	Roles and Responsibilities	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.7	**Risk Management Plan created**	**1 day?**	**Wed 10/9/19**	**Wed 10/9/19**
1.1.2.7.1	Risk Management Plan Introduction	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.7.2	Risk Management Plan Approach	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.8	**Communications Plan created**	**2 days?**	**Wed 10/9/19**	**Thu 10/10/19**
1.1.2.8.1	Communications Plan Introduction	1 day?	Wed 10/9/19	Wed 10/9/19

1.1.2.8.2	Communications Plan Approach	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.8.3	Roles and Responsibilities	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.8.4	Manage Communications	1 day?	Thu 10/10/19	Thu 10/10/19
1.1.2.8.5	Control Communications	1 day?	Thu 10/10/19	Thu 10/10/19
1.1.2.9	**Procurement Management Plan created**	**1 day?**	**Tue 10/8/19**	**Tue 10/8/19**
1.1.2.9.1	Procurement Plan and Approach	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.9.2	Roles and Responsibilities	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.10	Chapter V. Conclusions	1 day	Thu 10/10/19	Thu 10/10/19
1.1.2.11	Chapter VI. Recommendations	2 days	Thu 10/10/19	Sat 10/12/19
2	Tutor Approval	1 day?	Mon 10/14/19	Mon 10/14/19
3	**Reading by reviewers**	**40 days**	**Mon 10/21/19**	**Fri 12/13/19**
3.1	**Reviewers assignment request**	**5 days**	**Mon 10/21/19**	**Fri 10/25/19**
3.1.1	Assignment of two reviewers	2 days	Mon 10/21/19	Tue 10/22/19
3.1.2	Communication	2 days	Wed 10/23/19	Thu 10/24/19
3.1.3	FGP submission to reviewers	1 day	Fri 10/25/19	Fri 10/25/19
3.2	**Reviewers work**	**10 days**	**Mon 10/28/19**	**Fri 11/8/19**
3.2.1	**Reviewer**	**10 days**	**Mon 10/28/19**	**Fri 11/8/19**
3.2.1.1	FGP reading	9 days	Mon 10/28/19	Thu 11/7/19
3.2.1.2	Reader 1 report	1 day	Fri 11/8/19	Fri 11/8/19
3.2.2	**Reviewer**	**10 days**	**Mon 10/28/19**	**Fri 11/8/19**
3.2.2.1	FGP reading	9 days	Mon 10/28/19	Thu 11/7/19
3.2.2.2	Reader 2 report	1 day	Fri 11/8/19	Fri 11/8/19
3.3	**Adjustments**	**20 days**	**Mon 11/11/19**	**Fri 12/6/19**
3.3.1	Report for reviewers	9 days	Mon 11/11/19	Thu 11/21/19
3.3.2	FGP update	1 day	Fri 11/22/19	Fri 11/22/19
3.3.3	Second review by reviewers	10 days	Mon 11/25/19	Fri 12/6/19
3.4	**Presentation to Board of Examiners**	**5 days**	**Mon 12/9/19**	**Fri 12/13/19**
3.4.1	Final review by board	2 days	Mon 12/9/19	Tue 12/10/19

3.4.2	FGP grade report	3 days	Wed 12/11/19	Fri 12/13/19
3.5	FGP End	0 days	Fri 12/13/19	Fri 12/13/19

A separate WBS for the training component is provided below. This includes the milestones for the project which are those highlighted in the table below. The project is expected to be completed within 6 months with a budget not to exceed of USD $150,000.

Chart 13: WBS for Training Component (Source: author)

Outline Number	Task Name		Duration	Start	Finish	Predecessors
1	**Standardized Procurement Project for th CDEMA CU**		**176 days**	**Sun 12/1/19**	**Fri 7/31/20**	
1.1	**Procurement Management Plan**		**13 days?**	**Fri 12/6/19**	**Tue 12/24/19**	
1.1.1	Procurement Management Plan reviewed		1 day?	Fri 12/6/19	Fri 12/6/19	
1.1.2	Make Recommendations for the Enhancement of the Plan		0 days	Fri 12/13/19	Fri 12/13/19	3
1.1.3	**Draft Final Procurement Plan approved**		7 days	Mon 12/16/19	Tue 12/24/19	
1.2	**Subject Matter Expert hired**		**36 days?**	**Thu 1/2/20**	**Thu 2/20/20**	
1.2.1	**Scope of Works for Consultant reviewed**		**17 days?**	**Thu 1/2/20**	**Fri 1/24/20**	4
1.2.1.1	Scope of Works edited and submitted for approval		10 days	Thu 1/2/20	Wed 1/15/20	
1.2.1.2	Scope of Works approved and Terms of Reference for Consultant created		8 days?	Wed 1/15/20	Fri 1/24/20	
1.2.2	**Subject Matter Expert position advertised**		**26 days**	**Fri 1/24/20**	**Fri 2/28/20**	
1.2.2.1	Post on CDEMA CU's website and share externally		26 days	Fri 1/24/20	Fri 2/28/20	
1.2.3	**Technical and Financial Bids received**		**15 days**	**Mon 3/2/20**	**Fri 3/20/20**	
1.2.3.1	Consultants shortlisted		5 days	Mon 3/2/20	Fri 3/6/20	
1.2.3.2	Consultants interviewed		5 days	Mon 3/16/20	Fri 3/20/20	
1.2.4	**Consultants selected**		**33 days?**	**Mon 3/23/20**	**Wed 5/6/20**	
1.2.4.1	terms and conditions		5 days?	Mon 3/23/20	Fri 3/27/20	

	negotiated					
1.2.4.2	Draft contract for consultants shared for their review and input		6 days	Mon 4/27/20	Mon 5/4/20	
1.2.4.3	Consultant hired		3 days	Mon 5/4/20	Wed 5/6/20	
1.3	**Draft final procurement plan shared for consultants input**		**5 days?**	**Mon 5/11/20**	**Fri 5/15/20**	
1.3.1	Final procurement plan approved		5 days?	Mon 5/11/20	Fri 5/15/20	
1.4	**Training Plan**		**23 days?**	**Mon 5/18/20**	**Wed 6/17/20**	
1.4.1	**Training plan reviewed**		**10 days?**	**Mon 5/18/20**	**Fri 5/29/20**	
1.4.1.1	Recommendations shared for finalization		5 days?	Mon 5/18/20	Fri 5/22/20	
1.4.1.2	Final training plan approved		5 days	Mon 5/25/20	Fri 5/29/20	23
1.4.2	Resources procured for training plan		5 days	Mon 6/1/20	Fri 6/5/20	
1.4.3	**Training delivered**		3 days	Mon 6/15/20	Wed 6/17/20	17,24
1.4.4	Training evaluated		1 day?	Wed 6/17/20	Wed 6/17/20	
1.5	**Final consultant's report**		**66 days**	**Mon 6/29/20**	**Mon 7/31/20**	
1.5.1	Consultant's report reviewed		10 days?	Mon 6/29/20	Fri 7/10/20	
1.5.2	Recommendations provided for finalization		6 days?	Fri 7/10/20	Fri 7/17/20	
1.5.3	Final report submitted		1 day?	Fri 7/24/20	Fri 7/24/20	
1.5.4	Final report approved		6 days?	Fri 7/24/20	Fri 7/31/20	

The full WBS as a chart is provided in provided below.

Chart 14: WBS for Full Project (Source: author)
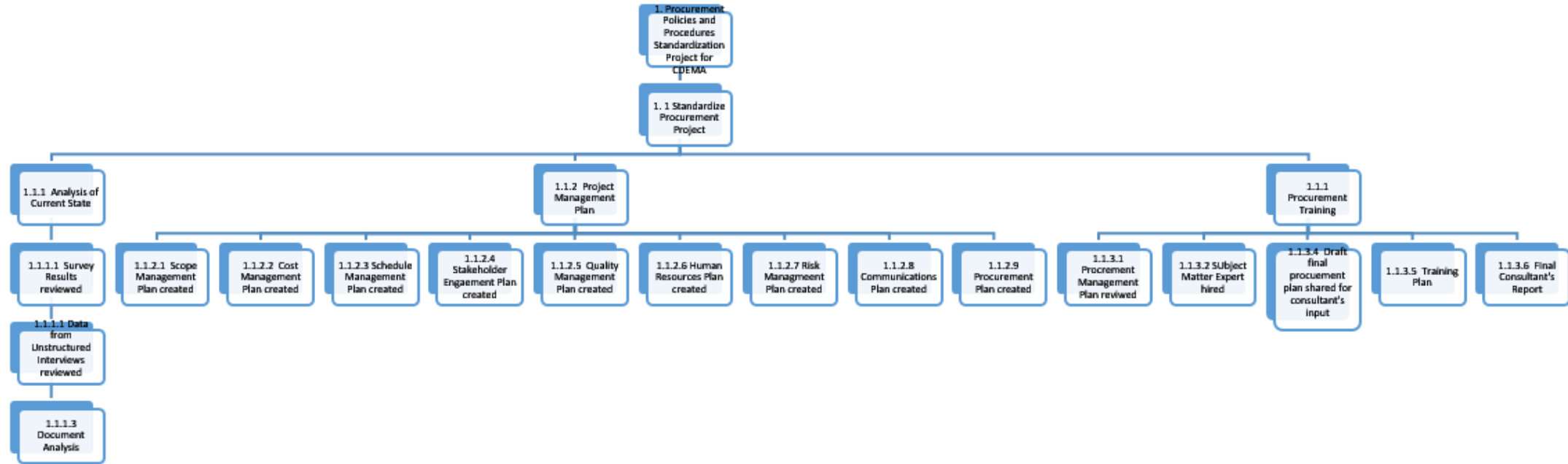
WBS Dictionary for Milestones for the project is below

Chart 15: WBS Dictionary for Milestones (Source: author)

WBS DICTIONARY

Project Title: _____   **Date Prepared:** _____

Work Package Name: Analysis of Current State	**Code of Account: 1.1.1**
Description of Work: Meetings with employees of the CDEMA CU and review of existing procurement policies and procedures documents.	**Assumptions and Constraints:**
Milestones: **1.** **2.** **3.**	**Due Dates:**

ID	Activity	Resource	Labor			Material			Total Cost
			Hours	**Rate**	**Total**	**Units**	**Cost**	**Total**	

Quality Requirements:

Acceptance Criteria:

Technical Information:

Agreement Information:

WBS Code	WBS Name	WBS Description of work	Resource Lead
1A	Policies and Procedures Standardization Project for CDEMA		Project Manager
1.1.1	Analysis of Current State	Meetings with employees of the CDEMA CU and review of existing procurement policies and procedures documents.	Project Manager
1.1.2	Project Management Plan	Meetings with project team and other key stakeholder to create the subsidiary plans that make up the Project Management Plan.	Project Manager
1.1.2.1	Scope Management Plan	Creation of plan where the project and product scope are defined, monitored and controlled.	Project Manager
1.1.2.2	Cost Management Plan	Creation of the plan where the project's costs are determined, estimated, monitored and controlled. The costs for the project should not exceed USD $150,000.00.	Project Manager
1.1.2.3	Schedule Management Plan	Creation of schedule management plan where the project's timelines do not exceed 6 months.	Project Manager
1.1.2.4	Stakeholder Management Plan	Coordination with internal and external stakeholders are outlined in this plan. The frequency and mode of contact are also provided.	Project Manager
1.1.2.5	Quality Management Plan	Includes the processes associated with the development, implementation and controlling	Project Manager

		procedures within the Quality Management plan.	
1.1.2.6	Resources Management Plan	The plan will include details on all resources required for the project and the timely acquisition of these resources to ensure project success.	Project Manager
1.1.2.7	Risk Management Plan	The plan outlines the process to plan, identify and mitigate risks in the project. The project team will identify risks and collate in the risk register, which will be updated throughout the life of the project.	Project Manager
1.1.2.8	Communications Plan	The plan will include the formal and informal flow of communication from the project to its stakeholders.	Project Manager
1.1.2.9	Procurement Management Plan	The Project Manager will create the draft procurement management plan which includes details on the external resources required for the project and their acquisition.	Project Manager
1B	Training Plan	This will be the roadmap for the procurement training offered by the consultant.	Consultant
1.1.3	Draft Final Procurement Plan	The consultant will review the draft plan and provide inputs to enhance the document to meet best practice standards.	Project Manager
1.2	Subject Matter Expert		
1.2.1	Scope of Works for Consultant	Also known as the Terms of Reference, this document will	Project Manager

		outline the specific activities to be performed by the Consultant.	
1.2.2	Advertise for Subject Matter Expert	Advertisement is the public announcement, as required by law and or the organization, which invites technical and financial bids for the position. The position will be posted on CDEMA's website and in local and regional online papers and with partners.	Human Resources and Administration Manager
1.2.3	Technical and Financial Bids	The CDEMA CU shall receive the bids (proposals) received and shortlist those which meets the requirements of the position.	Human Resources and Administration Manager
1.2.4	Consultants chosen	Interviews will be conducted with those who have been shortlisted, results tabulated and the consultant who meets the technical and financial requirements with the highest score selected.	Human Resources and Administration Manager
1.2.4.2	Contract for consultants created for their review and input	The draft contract will be prepared by the Human Resources and Administration Manager with input from the Project Manager; shared with the winning consultant for their input.	Human Resources and Administration Manager
1.2.4.3	Consultant hired	The consultant is considered hired when both the consultant and organization sign off on the contract.	Human Resources and Administration Manager
1.3	Draft final procurement plan for	The Project Manager will share	Project Manager

	consultants input	the document for the consultant's input before finalization.	
1.4.3	Training	The consultant prepares a training plan which includes the activities related to this deliverable, as well as the resources needed.	Consultant
1.5.3	Final consultant's report	The final report of the training is submitted by the consultant. The report includes the results of the evaluation of the training.	Consultant
1.5.4	Approval of final consultantreport	The final report is approved by the Project Board.	Project Board

4.2.11 Scope Acceptance Criteria

For this project, scope acceptance criteria are provided below. These are specific conditions which must be met before the project's deliverables can be classified as acceptable.

- Project is delivered within time, budget and quality. The project should be completed within 6 months and should not exceed USD $150,000.00. This cost includes the delivery of the procurement documents and also the procurement training for key stakeholders. The project's deliverables must meet the quality standards of the CDEMA CU to ensure that they fit for purpose.

- Deliverables approved by the Project Board: Each deliverable must be approved by the Project Board before they are submitted to the organization's governance body. The Project Board will not only review, but share recommendations for improvement if required.

- Business benefits achieved: The CDEMA CU is engaging in this project to ensure that its procurement policies and procedures are standardized across all projects and business functions, and to ensure that they meet regional and international best practice procurement standards. The benefit for the organization would be an increase in their competitive advantage and to retain and improve its reputation across stakeholders and within the industry. This would see an increase in the number and monetary value of projects being implemented by the organization.

The above criteria must be documented in the project's requirements document.

SPONSOR ACCEPTANCE
Approved by:
_____ Date: _____

CDEMA COORDINATING UNIT ACCEPTANCE
Approved by:
_____ Date: _____

4.3 SUSTAINABLE COST MANAGEMENT PLAN

4.3.1 Cost Management Plan Introduction

Project Cost Management includes the processes involved in planning, estimating, budgeting, financing, funding, managing and controlling costs so that the project can be completed within the approved budget (PMI 2017). The Plan will ensure that there is sustainability built within the project's budget. Costs will be planned for, measured, determined, reported on and controlled. In addition, effective monitoring will be carried out throughout the project to ensure that the project's deliverables are achieved at or under costs estimated during the planning phase. Cost management activities will be conducted throughout the project's life cycle.

The Cost Management Plan will be created by the Project Manager with input from the Sponsor and Organization's Chief Accountant. The plan helps to see the project's baseline costs, and negates against cost overruns. The summary of the processes for Cost Management are outlined below in Chart 16.

Chart 16: Cost Management Plan Summary (Source: Author of the study)

Processes	Activities	Results
Cost Management Plan	1. The process of defining how the project costs will be estimated, budgeted, managed, monitored and controlled. (PMI, 2017)	Approved cost management plan.
Estimate Costs	2. The process of developing an approximation of the monetary resources needed to complete project work. (PMI, 2017)	Cost estimates.
Determine Budget	3. The process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline. (PMI, 2017).	Project funding requirements
Control costs	4. The process of monitoring the status of the project to update the project costs and manage changes to the cost baseline. (PMI, 2017)	Change requests.

4.3.2 Cost Management Approach

The following cost planning processes will be incorporated into the new cost management approach to ensure the effective flow of operations. The PMBOK advises that Cost Management is made up of the following four activities:

1. Plan Cost Management
2. Estimate Costs
3. Determine Budget
4. Control Costs
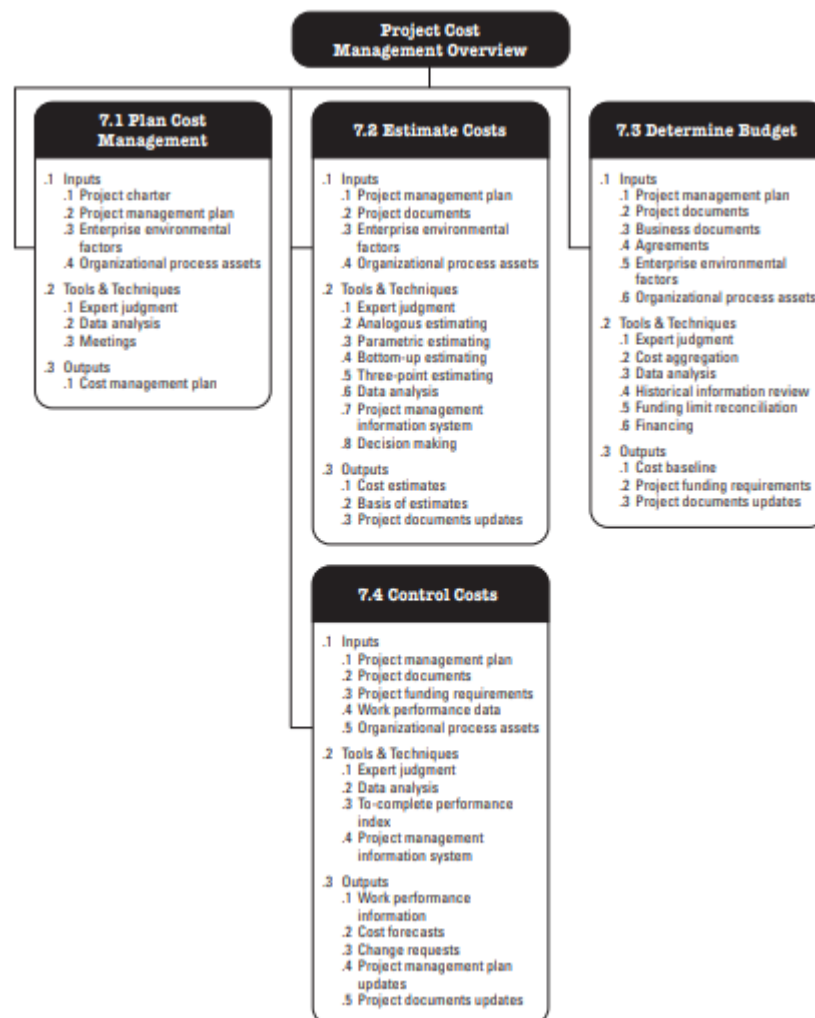
Figure 13: Project Cost Management Overview. Reprinted from A Guide to the Project Management Body of Knowledge (p. 232), Project Management Institute 2017 by Project Management Institute.

4.3.4 Plan Cost Management

Plan Cost Management: During this phase the Project Manager will define how the project's costs will be estimated, budgeted, managed, monitored and controlled (PMI, 2017). During the planning phase, the project charter will be reviewed to ensure that the budget approved by the sponsor is adhered to. In addition, market conditions will also be researched to ensure that the organization's procurement requirements are accurately costed given the availability of these resources in the region.

The Project Manager will have bi-weekly discussions with the Project's Accountant. In addition, monthly consultations will also be held with the Organization's Chief Accountant to ensure that repetition and other redundancies are eliminated thereby maximizing costs. In these monthly discussions, information from previous similar projects will be reviewed to ensure that best practice standards are being incorporated into the project.

4.3.5 Estimate Costs

Estimate Costs using expert judgement through analogous estimating and bottom-up estimating through the analysis of previous similar projects. The Project Manager will meet with the Chief Accountant to review the costs of similar projects and create a budget which will not exceed USD $150,000.00 for the project. The main costs associated with this project will be through the provision of a consultant to undertake communications training once the plan has been accepted by the project's sponsor and organization. The budget is provided below:

Budget for the Procurement Policies and Procedures for the Standardization Project for the Caribbean Disaster Emergency Management Agency			
No.	Item Name	Unit Price (USD)	Total Price (USD)
1.	Salary for Project Manager for 6 months	$4,500.00	$27,000.00
2.	Hiring of Consultant for 4	$5,500.00	$22,000.00

	months (including costs for professional fees for delivery of training)		
3.	Administrative Costs (10% of total budget)	$15,000.00	$15,000.00
4.	Delivery of Training (see breakdown at Appendix 11)	$85,899	$85,899.00
	TOTAL		$149,899.00

Through this process, the Work Breakdown Schedule and WBS Dictionary will be reviewed to ensure that the deliverables are attainable. In addition, the project schedule will also be reviewed to ensure that the costs associated with each deliverable within the timeframe specified are achievable. Expert judgement through the review of similar projects will also be undertaken, along with industry details and cost estimating methods.

4.3.6 Determining Budget

Determining budget will be used to calculate the project's cost baseline. The Project Manager will conduct this process at key deliverable stages throughout the project. The Project Management Insitute (PMI, 2017) advises that the cost baseline is the approved version of the time-phased project budget that includes contingency reserves, but excludes management reserves. The Project Manager will review the cost estimates and project schedules as inputs to this process. Expert judgement through the review of project documents for similar projects will be conducted by the Project Manager. These documents may include projects which focused on consultancies and creating policy and dialogue.

4.3.7 Control Costs

Cost control will require continuous monitoring, evaluating and reporting of the project's finances by the Project Manager with support from the Project

Accountant. The Project Accountant will utilize QuickBooks to update the project's budget with actual costs. A process flow to control costs is outlined below at Figure 15 and will be used by the Project Manager and team.
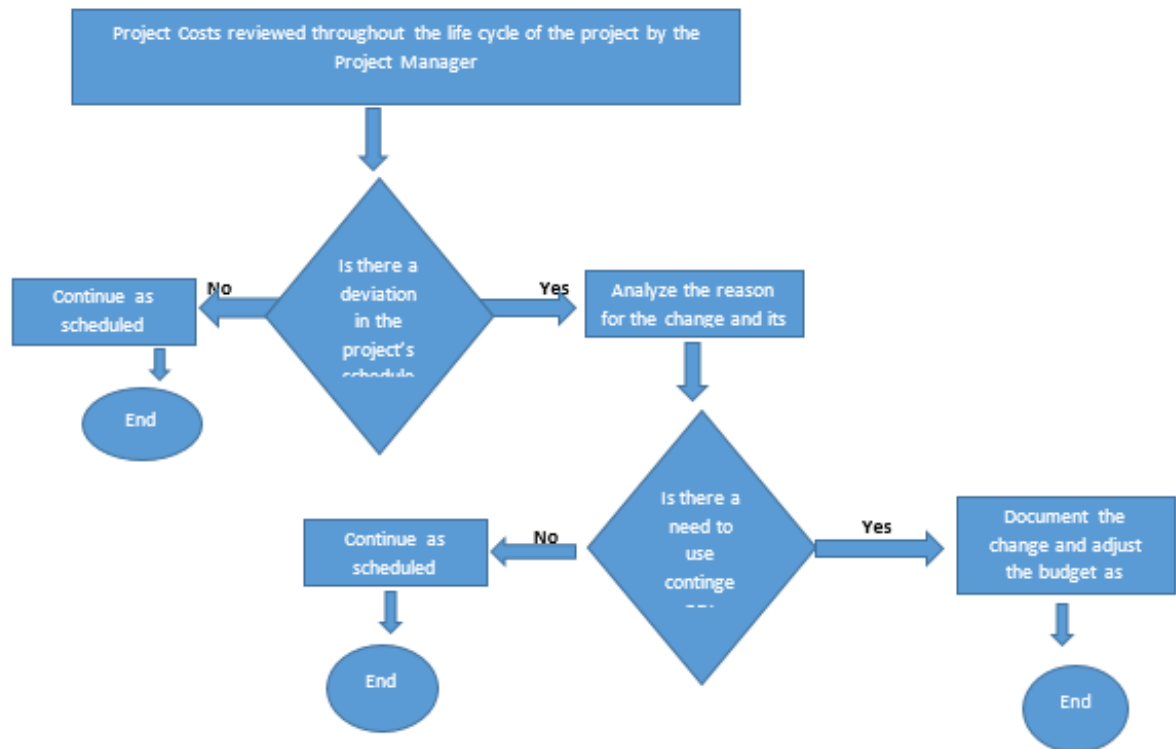
Figure 14 Process Flow to Control Costs (Source: author)

Both the Project Manager and the Accountant will be aware of the actions required to ensure that project costs are controlled. These as outlined by The Project Management Institute (PMI, 2017) are:

- Influencing the factors that create changes to the authorized cost baseline;
- Ensuring that all change requests are acted on in a timely manner;
- Managing the actual changes when and as they occur;
- Ensuring that cost expenditures do not exceed the authorized funding by period, by WBS component, by activity, and in total for the project;
- Monitoring cost performance to isolate and understand variances from the approved cost baseline;

- Monitoring work performance against funds expended;

- Preventing unapproved changes from being included in the reported cost or resource usage;

- Informing appropriate stakeholders of all approved changes and associated costs; and

- Bringing expected overruns within acceptable limits.

4.3.8 Cost Roles and Responsibilities

The roles and responsibilities for key individuals with responsibilities in Sustainable Cost Management are highlighted below. The Project Manager will need to seek the support of the project's sponsor and the CDEMA CU before finalizing the plan.

Chart 17: Cost Management Roles and Responsibilities (Source: author)

ROLE	RESPONSIBILITIES
Project Sponsor	• Provides financial support to the organization for the implementation of the Project. • Reviews reports shared by the Project Manager. • Approves or denies requests. • Reviews and approves or denies requests under between US 10,000.00 - $30,000.00.
Implementing Agency – CDEMA CU	• Reviews reports shared by the Project Manager • Approves or denies requests as a member of the Project Board.
Project Manager	• Responsible for creating the Cost Management Plan. • Responsible for the monitoring and reporting for cost management. • Presents and reviews the project's cost performance. • Identifies any variances and creates mitigating

	measures to keep project within cost. • Reviews and approves or denies requests under US 10,000.00. • Coordinates review of requests for the Board's consideration.
Project Accountant	• Adds the project's budget to Quickbooks. • Responsible for the daily review of the project's budget. • Updates the project budget with actual costs. • Highlights any variances to the Project Manager. • Prepares cost management reports using Quickbooks.
Project Board	• Receive cost change requests in excess of US $30,000.00. • Review cost change requests. • Approve or deny cost change requests.

4.3.9 Costs Measured

The project's performance will be measured using the Earned Value Measurement, utilizing the Schedule Variance (SV); Cost Variance (CV); Schedule Performance Index (SPI) and the Cost Performance Index (CPI).

If the Cost Variance or Schedule Variance are positive or neutral, then the Project will proceed as planned. A positive CV means that the Project is under planned costs, whilst a neutral CV means that the progress is right on target with the costs that were estimated. If either of these variables are negative, it can mean that the Project is either behind Schedule or over its estimated costs.

The Project Manager will continuously monitor the Budget and Schedule to ensure that they do not fall below 1.0. If the SPI or CPI has a variance of less than 1.0, the Project Manager must report the reason for the exception and provide

management a detailed mitigation plan to bring the Project back into an acceptable Budget and Schedule. The plan must include details not limited to the description of the control measure, staff involved in implementing the control measure, a timeline of implementation, any risks or concerns associated with this, and the effect that it will have on the overall project's performance.

4.3.10 Reporting Costs

Reporting for cost management will be included in the bi-monthly project progress report. The Monthly Project Progress Report will include a section labelled, "Cost Management." A detailed Profit and Loss Statements and Balance Sheets will be created by the Project Accountant through QuickBooks to allow the Project Manager to see how the project is tracking financially. This section will contain the Earned Value Metrics identified in the previous section. All cost variances outside of the thresholds identified in this Cost Management Plan will be reported on including any corrective actions that are planned. Change orders that are triggered based upon project cost overruns will be identified and tracked in this report.

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Approved by:
_____ Date: _____

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_____ Date: _____

4.4 SCHEDULE MANAGEMENT PLAN

4.4.1 Schedule Management Plan Introduction

Project scheduling provides a detailed plan that represents how and when the project will deliver the products, services and results defined in the project scope and serves as a tool for communication, managing stakeholders expectations, and as a basis for performance reporting (PMI 2017). The processes associated with the plan are provided below.

Chart 18: Schedule Management Plan Summary (Source Author of the study)

Processes	Activities	Results
Plan schedule management	1. Establish the policies, procedures, and documentation for planning, developing, managing, and controlling the project schedule (PMI, 2017).	Approved schedule management plan.
Define Activities	2. The process of identifying and documenting the specific actions to be performed to produce the project deliverables (PMI, 2017).	Activity List, Milestone List.
Sequence Activities	3. The process of identifying and documenting relationships among the project activities (PMI. 2017).	Project Schedule Network Diagram.
Estimate Activity Durations	4. The process of estimating the number of work periods needed to complete individual activities with the estimated resources (PMI, 2017)	Duration Estimates.
Develop Schedule	5. The process of analyzing activity sequences, durations, resource requirements, and schedule constraints to create the project schedule model for project execution, monitoring and controlling (PMI, 2017).	Project Schedule.
Control Schedule	6. The process of monitoring the status of the project to update the project schedule and manage changes to the schedule baseline (PMI, 2017).	Change requests.

The Project Manager completed this schedule management plan after the scope and cost management plans. The schedule outlines the activities required to complete the project in a timely manner, and serves as a roadmap for stakeholders. The processes as outlined by The Project Management Insitute (PMI, 2017) for this phase include plan Schedule management; define activities;

sequence activities; estimate activity durations; develop and control Schedule. Given the nature of this Project some of these processes will be grouped together.
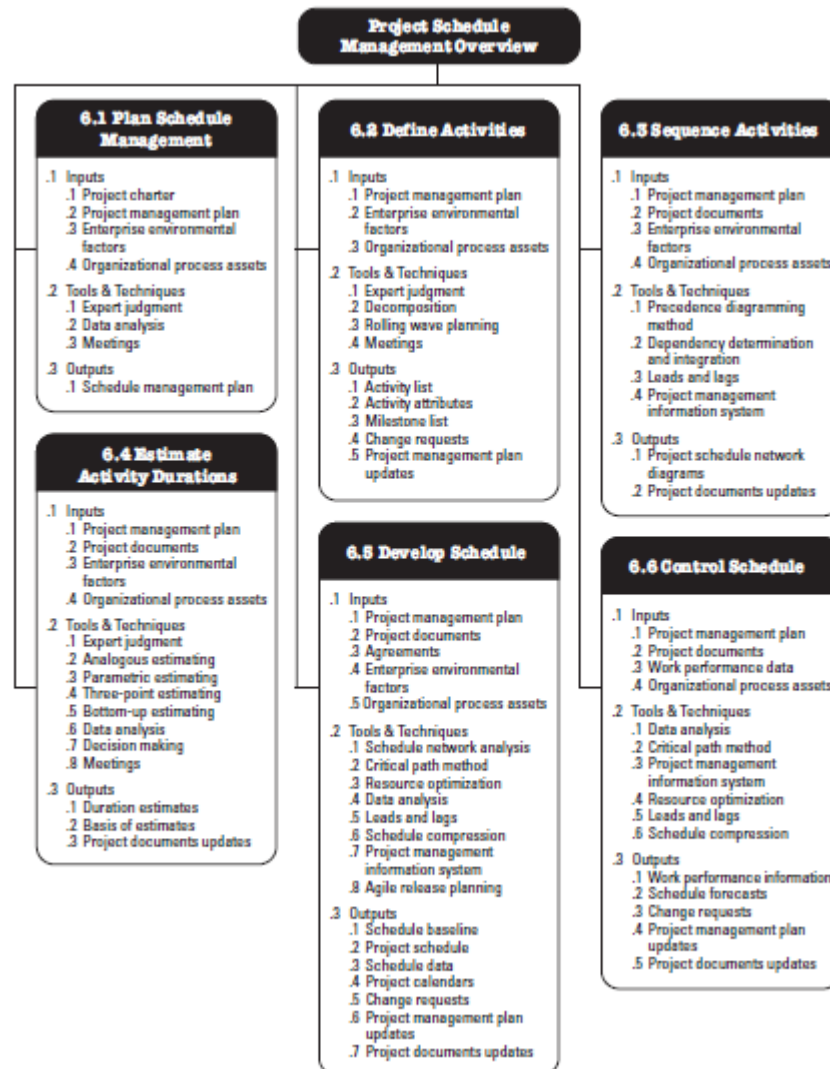
The Schedule Management processes will be those as outlined by the Project Management Institute to ensure that best practice standards are built into the Schedule. These include:

1) Plan Schedule Management
2) Define Activities
3) Sequence Activities
4) Estimate Activity Durations
5) Develop Schedule
6) Control Schedule

4.4.2 Schedule Management Approach

Project schedules will be created using MS Project 2013 deliverables identified in the project's Work Breakdown Structure (WBS). The plan will be used to outline the process the team will use to develop or create the project's Schedule. Once a schedule baseline is established, changes to the schedule are managed through the project's Change Control process.

The Project Manager will provide updates on the project's Schedule during the Project's Board Meetings and through monthly meetings with the organization's Chief Accountant. The Project Manager will also advise the sponsor of any amendments to the Schedule and outline any measures required to keep the project on track.

The plan will outline the tools and techniques, which will be utilized throughout the project. Already completed project documents such as the charter and different components of the project management will provide inputs into the development of the schedule. The Project Manager and the CDEMA CU will ensure that there are no scheduling conflicting around the delivery of key deliverables.

The project team will discuss which project methodology to follow such as critical path or agile approach. The Project Management Insitute (PMI, 2017)

advises that once the methodology has been agreed upon, the next step would be to enter specific project related data into the scheduling tool.

4.4.3 Plan Schedule Management

This is the process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule (PMI, 2017). The Project Manager will utilize the project charter, scope management plan and organizational process assets as inputs into this process. Expert judgement and meetings with representatives from the CDEMA CU will be used in the development of the schedule for the project. A meeting will be held with the Human Resources and Administration Manager within the CDEMA CU to ensure that there are no conflicts. This will done through the review of the organization's calender and the early plotting of the project's activities on the calendar to ensure no clashes. In addition, the availability of key subject matter experts within the organization will also be addressed to ensure that they are able to provide the required inputs when needed. The information culled will be analyzed by the Project Manager and team to identify the scheduling method that will be utilized.

4.4.4 Define Activities

The Project Management Institute indicates that this is the process of identifying and documenting the specific actions to be performed to produce the project deliverables (PMI, 2017). For this project, the activities at Appendix 9 were described in the WBS dictionary. Given the size of the project and scope of works, most of the activities will be conducted by the Project Manager. In the Define Activities phase, the Project Manager and Team will identify and document activities to be performed to complete the project's deliverables. Given the organization's past experience with completing similar activities, the first step will be to review these activities and determine their relevance to the project. Activities

associated with the hiring of the consultant and delivery of training will follow the Organization's standard procurement process. The figure below from the 2017 Project Management Insitutue Guide shows the process flow for this phase reflecting the inputs into this process and the possible outputs.
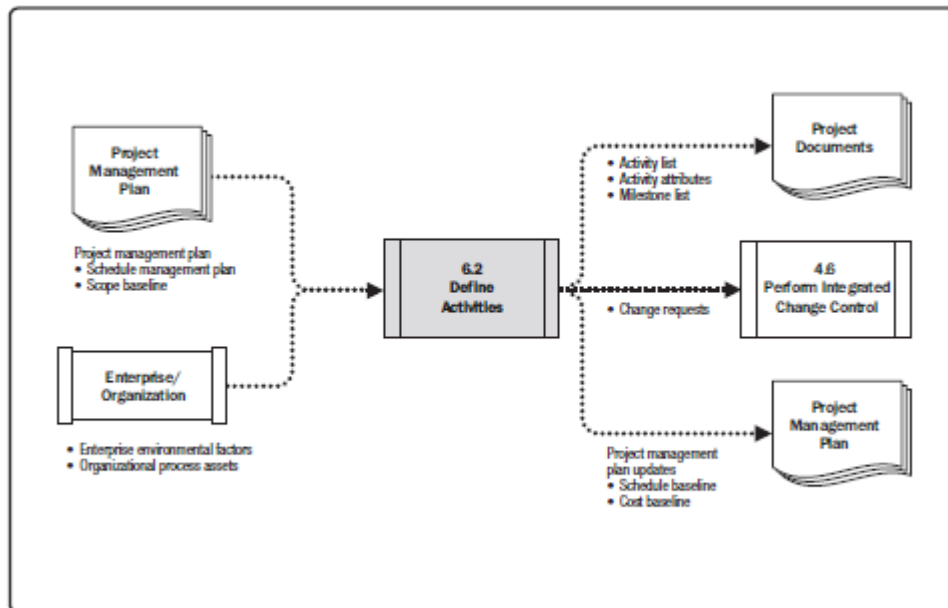
Figure 16: Define Activities: Data Flow Diagram. Reprinted from A Guide to the Project Management Body of Knowledge (p.183), Project Management Institute 2017 by Project Management Institute.

The Project Manager and team will use professional judgement for this process, as these activities are not new to the organization. The project scope and each deliverable have already been broken down in the WBS, so the decomposition method will be further utilized to produce the work package deliverables. Subject Matter Experts within the organization with specific expertise for each deliverable will be utilized during the decomposition process. For example; the Human Resources and Administration Manager will provide input into the Human Resources Management Plan, and the Communications and Education Specialist will provide insight into the Communications Management Plan.

The project's activities are outlined below with their duration measured in days. The activities are divided amongst the 2 components for the project which are the development of the Project Management Plan and the Training component.

Chart 19: Schedule for Creation of Project Management Plan (Source: author)

Outline Number	Task Name	Duration	Start	Finish
1	**Chapter 4: Results**	**30 days?**	**Mon 9/2/19**	**Sat 10/12/19**
1.1	**Standardize Procurement Project**	**30 days?**	**Mon 9/2/19**	**Sat 10/12/19**
1.1.1	**Analysis of Current State**	**20 days?**	**Mon 9/2/19**	**Sun 9/29/19**
1.1.1.1	Review of Survey Results	3 days?	Mon 9/23/19	Wed 9/25/19
1.1.1.2	Review of Unstructured Interviews	1 day?	Fri 9/27/19	Sun 9/29/19
1.1.1.3	Document Analysis	15 days?	Mon 9/2/19	Fri 9/20/19
1.1.2	**Project Management Plan**	**10 days?**	**Mon 9/30/19**	**Sat 10/12/19**
1.1.2.1	**Create Scope Management Plan**	**6 days?**	**Mon 9/30/19**	**Mon 10/7/19**
1.1.2.1.1	Scope Management Plan Introduction	2 days	Mon 9/30/19	Tue 10/1/19
1.1.2.1.2	Scope Management Plan Approach	2 days	Tue 10/1/19	Wed 10/2/19
1.1.2.1.3	Define Roles and Responsibilities	1 day?	Thu 10/3/19	Thu 10/3/19
1.1.2.1.4	Product Scope Description	1 day?	Thu 10/3/19	Thu 10/3/19
1.1.2.1.5	Measures of Project's Success	1 day?	Thu 10/3/19	Thu 10/3/19
1.1.2.1.6	Scope Success	1 day?	Fri 10/4/19	Fri 10/4/19
1.1.2.1.7	Scope Control	1 day?	Fri 10/4/19	Fri 10/4/19
1.1.2.1.8	Scope Change	1 day?	Fri 10/4/19	Fri 10/4/19
1.1.2.1.9	Scope Verification	0 days?	Sat 10/5/19	Sat 10/5/19
1.1.2.1.10	WBS and WBS Dictionary	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.1.11	Scope Acceptance Criteria	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.2	**Create Cost Management Plan**	**3 days?**	**Thu 10/3/19**	**Mon 10/7/19**
1.1.2.2.1	Cost Management Plan	2 days	Thu 10/3/19	Fri 10/4/19

	Introduction			
1.1.2.2.2	Cost Management Plan Approach	1 day?	Fri 10/4/19	Sat 10/5/19
1.1.2.2.3	Role and Responsibilities	1 day?	Fri 10/4/19	Sat 10/5/19
1.1.2.2.4	Define how costs will be measured	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.2.5	Reporting Costs	1 day?	Mon 10/7/19	Mon 10/7/19
1.1.2.3	**Create Schedule Management Plan**	**3 days?**	**Mon 10/7/19**	**Wed 10/9/19**
1.1.2.3.1	Schedule Management Plan Introduction	2 days?	Mon 10/7/19	Tue 10/8/19
1.1.2.3.2	Schedule Management Approach	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.3.3	Role and Responsibilities	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.3.4	Schedule Control	1 day	Tue 10/8/19	Tue 10/8/19
1.1.2.3.5	Schedule Change	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.4	**Create Stakeholder Management Plan**	**1 day?**	**Tue 10/8/19**	**Tue 10/8/19**
1.1.2.4.1	Stakeholder Management Plan Introduction	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.2	Roles and Responsibilities	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.3	Identify Stakeholders	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.4	Stakeholder Analysis	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.5	Manage Stakeholder Engagement	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.4.6	Control Stakeholder Engagement	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.5	**Quality Management Plan**	**1 day?**	**Wed 10/9/19**	**Wed 10/9/19**
1.1.2.5.1	Quality Management Plan Introduction	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.5.2	Quality Management Plan Approach	0 days?	Wed 10/9/19	Wed 10/9/19
1.1.2.6	**Create Human Resources Plan**	**1 day?**	**Wed 10/9/19**	**Wed 10/9/19**
1.1.2.6.1	Human Resources Plan Management Introduction	1 day?	Wed 10/9/19	Wed 10/9/19

1.1.2.6.2	Roles and Responsibilities	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.7	**Create Risk Management Plan**	**1 day?**	**Wed 10/9/19**	**Wed 10/9/19**
1.1.2.7.1	Risk Management Plan Introduction	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.7.2	Risk Management Plan Approach	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.8	**Create Communications Plan**	**2 days?**	**Wed 10/9/19**	**Thu 10/10/19**
1.1.2.8.1	Communications Plan Introduction	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.8.2	Communications Plan Approach	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.8.3	Roles and Responsibilities	1 day?	Wed 10/9/19	Wed 10/9/19
1.1.2.8.4	Manage Communications	1 day?	Thu 10/10/19	Thu 10/10/19
1.1.2.8.5	Control Communications	1 day?	Thu 10/10/19	Thu 10/10/19
1.1.2.9	**Create Procurement Management Plan**	**1 day?**	**Tue 10/8/19**	**Tue 10/8/19**
1.1.2.9.1	Procurement Plan and Approach	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.9.2	Roles and Responsibilities	1 day?	Tue 10/8/19	Tue 10/8/19
1.1.2.10	Chapter V. Conclusions	1 day	Thu 10/10/19	Thu 10/10/19
1.1.2.11	Chapter VI. Recommendations	2 days	Thu 10/10/19	Sat 10/12/19
2	Tutor Approval	1 day?	Mon 10/14/19	Mon 10/14/19
3	**Reading by reviewers**	**40 days**	**Mon 10/21/19**	**Fri 12/13/19**
3.1	**Reviewers assignment request**	**5 days**	**Mon 10/21/19**	**Fri 10/25/19**
3.1.1	Assignment of two reviewers	2 days	Mon 10/21/19	Tue 10/22/19
3.1.2	Communication	2 days	Wed 10/23/19	Thu 10/24/19
3.1.3	FGP submission to reviewers	1 day	Fri 10/25/19	Fri 10/25/19
3.2	**Reviewers work**	**10 days**	**Mon 10/28/19**	**Fri 11/8/19**
3.2.1	**Reviewer**	**10 days**	**Mon 10/28/19**	**Fri 11/8/19**
3.2.1.1	FGP reading	9 days	Mon 10/28/19	Thu 11/7/19
3.2.1.2	Reader 1 report	1 day	Fri 11/8/19	Fri 11/8/19
3.2.2	**Reviewer**	**10 days**	**Mon 10/28/19**	**Fri 11/8/19**
3.2.2.1	FGP reading	9 days	Mon 10/28/19	Thu 11/7/19

3.2.2.2	Reader 2 report	1 day	Fri 11/8/19	Fri 11/8/19
3.3	**Adjustments**	**20 days**	**Mon 11/11/19**	**Fri 12/6/19**
3.3.1	Report for reviewers	9 days	Mon 11/11/19	Thu 11/21/19
3.3.2	FGP update	1 day	Fri 11/22/19	Fri 11/22/19
3.3.3	Second review by reviewers	10 days	Mon 11/25/19	Fri 12/6/19
3.4	**Presentation to Board of Examiners**	**5 days**	**Mon 12/9/19**	**Fri 12/13/19**
3.4.1	Final review by board	2 days	Mon 12/9/19	Tue 12/10/19
3.4.2	FGP grade report	3 days	Wed 12/11/19	Fri 12/13/19
3.5	FGP End	0 days	Fri 12/13/19	Fri 12/13/19

Chart 20: Schedule for training component (Source: author)

Outline Number	Task Name	Duration	Start	Finish	Predecessors
1	**Standardized Procurement Project for th CDEMA CU**	**176 days**	**Sun 12/1/19**	**Fri 7/31/20**	
1.1	**Procurement Management Plan**	**13 days?**	**Fri 12/6/19**	**Tue 12/24/19**	
1.1.1	Review Procurement Management Plan	1 day?	Fri 12/6/19	Fri 12/6/19	
1.1.2	Make Recommendations for the Enhancement of the Plan	0 days	Fri 12/13/19	Fri 12/13/19	3
1.1.3	Approve draft Final Procurement Plan	7 days	Mon 12/16/19	Tue 12/24/19	
1.2	**Hire Subject Matter Expert**	**36 days?**	**Thu 1/2/20**	**Thu 2/20/20**	
1.2.1	**Review Scope of Works for Consultant**	**17 days?**	**Thu 1/2/20**	**Fri 1/24/20**	4
1.2.2	**Advertise for Subject Matter Expert**	**26 days**	**Fri 1/24/20**	**Fri 2/28/20**	
1.2.2.1	Post on CDEMA CU's website and share externally	26 days	Fri 1/24/20	Fri 2/28/20	
1.2.3	**Receive Technical and Financial Bids**	**15 days**	**Mon 3/2/20**	**Fri 3/20/20**	
1.2.3.1	Shortlist consultants for Interview	5 days	Mon 3/2/20	Fri 3/6/20	
1.2.3.2	Interview Consultants	5 days	Mon 3/16/20	Fri 3/20/20	
1.2.4	**Select Consultants**	**33 days?**	**Mon**	**Wed 5/6/20**	

			3/23/20		
1.2.4.1	Negotiate terms and conditions	5 days?	Mon 3/23/20	Fri 3/27/20	
1.2.4.2	Share draft contract for consultants review and input	6 days	Mon 4/27/20	Mon 5/4/20	
1.2.4.3	Hire consultant	3 days	Mon 5/4/20	Wed 5/6/20	
1.3	**Share draft final procurement plan for consultants input**	**5 days?**	**Mon 5/11/20**	**Fri 5/15/20**	
1.4	**Training Plan**	**23 days?**	**Mon 5/18/20**	**Wed 6/17/20**	
1.5	**Final consultant's report**	**66 days**	**Mon 6/29/20**	**Mon 7/31/20**	

4.4.5 Sequence and Estimate Activities

These processes are used to identify and document relationships among the project deliverables and estimate the number of work periods needed to complete individual activities with estimated resources (PMI, 2017). Through the completion of these processes, a detailed plan or roadmap was created (see below) which shows the timeline for the completion of the project's deliverables, as well as the sequencing of events which can also be viewed from the Network Diagram at Appendix 12. The Project Manager in reviewing the Charter and other Project documents will determine which scheduling method will be utilized for the Project. For this project, given its short duration and Budget it is expected that an agile or adaptive approach will be used for scheduling. As each plan is completed, the Project Manager will review the results and adapt as needed for the next plan.

Each work package will have activities assigned that must be performed to complete each deliverable. Sequencing will be used to show the order in which activities must be completed using logic and past experiences to ensure that these are completed within Schedule. The Project Manager will first review the Schedule to ensure that the activities and their purported sequencing are logical enough to complete the required work package and achieve the project's deliverables. The

following are designated as project milestones: Project Charter approved by sponsor and accepted by organization; Project Kick-Off; acceptance of each deliverable by the Project Board; acceptance of each deliverable by other key stakeholders; acceptance of final report (financial and narrative) by Project Board; and end of project.

When sequencing activities, the Project Manager through the WBS will outline which activities need to be completed before the other activity can begin, and also showcase which activities can be completed simultaneously. This process will be combined with the Define Activities process.

To estimate activity durations process was compiled through Expert Judgement and Organization assets. Information from similarly implemented projects was used to estimate durations.   The Gantt Chart shows the activities as sequenced during the 6-month period for the training plan.
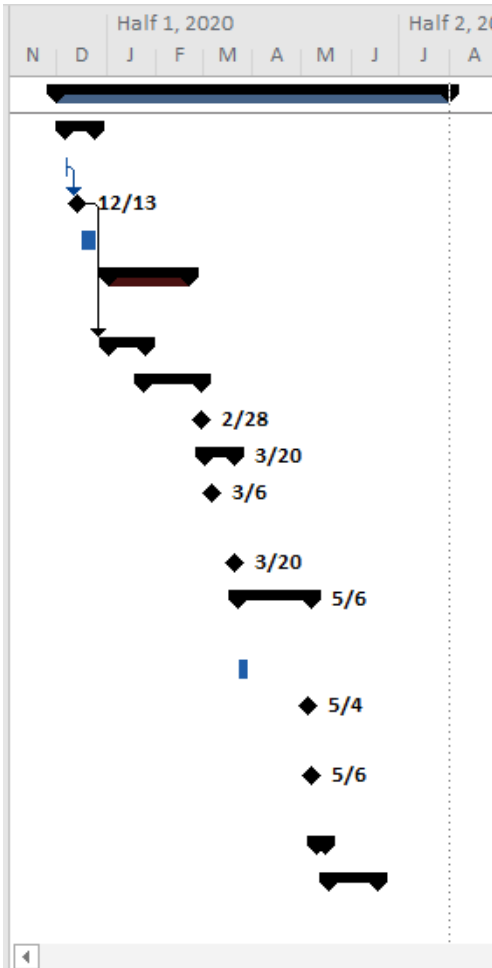
Figure 17: Gantt Chart of Activities for the Procurement Training Component of the project (Source: Author).

4.4.6 Roles and Responsibilities

Chart 21: Schedule Management Roles and Responsibilities (Source: author)

ROLE	RESPONSIBILITIES
Project Sponsor	• Approves the Project's Schedule and Schedule Management Plan. • Shares recommendations as required to ensure project is completed on time.
Implementing Agency – CDEMA CU	• Approves the Project's Schedule and Schedule Management Plan. • Shares recommendations as required to ensure

	project is completed on time.
Project Manager	• Responsible for creating the Schedule Management Plan. • Responsible for creating the project's schedule using MS Project. • Responsible for breaking down the work packages into activities. • Leads discussions on sequencing and estimating duration periods and resources for each work package/activities. • Defines the project's activities. • Validates the project's schedule with the Project Board. • Obtains approval of the Project's Schedule and Schedule Management Plan from key stakeholders. • Provides regular status updates during meetings with key stakeholders.
Project Board	• Reviewing the Project's Schedule and Schedule Management Plan. • Approves or denies schedule change requests.
Project Team	• Assists the Project Manager with the sequencing and estimating duration periods and resources for each work package/activities. • Assists with the definition of activities. • Reviews and validates the project's schedule. • Notifies the Project Manager about possible scheduling conflicts and risks. • Provides accurate reporting during the project. • Perform assigned activities.

4.4.7 Schedule Control

The project schedule will be reviewed and updated as necessary by the Project Manager with inputs from the project team. The project manager during his monthly project status updates meetings with the project team, will analyze the reports compiled for each deliverable, and identify activities that may be outside of the parameter of the initial Schedule. The project team will brainstorm on alternatives or mitigating measures to ensure that the project is completed on time.

Performance reviews will be conducted comparing the planned versus actual Schedule, level of completion and remaining time for the deliverable to be completed. In addition, a variance analysis will also be utilized to determine the cause(s) for the difference in the schedule from planned to actual.

If an activity results in a significant change to the Schedule, the project team member should immediately draw this to the attention of the Project Manager, who will alert the Project Sponsor and the CDEMA CU for high-level decisions to be made on the project's future. If a change request is required, this must follow the change control process previously established.

4.4.8 Schedule Change

If any member of the project team determines that a change to the schedule is necessary, the project manager and team will meet to review and evaluate the change. The change process already established for the project will be utilized.

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4.4 STAKEHOLDER MANAGEMENT PLAN

4.5.1 Stakeholder Management Plan Introduction

Stakeholder management is vital to the success of any project. Understanding who your stakeholders are; the needs of your key stakeholders; and ensuring that these are captured and addressed during the project's planning phase can determine the feasibility of the project. Is the project being implemented to satisfy a particular need, and once the project's deliverables are identified and completed, will the capacity gap be plugged or will your stakeholders' expectations change over the life of the project? These are all questions that can be addressed in the project stakeholder plan.

This plan will identify the stakeholders that could impact or be impacted by the implementation of the project, analyse their expectations and impact; and develop appropriate management strategies to effectively engage them. For this project, and based on the business case, the stakeholders have already been identified from previous projects. These include the CDEMA CU, the CDEMA system, which includes Participating States and Partners, Government Organizations, Regional Organizations and the general public within CDEMA's 18 Participating States. Their interests in relation to this project will be collated and analysed and information regarding their influence and impact on the project will be accumulated.
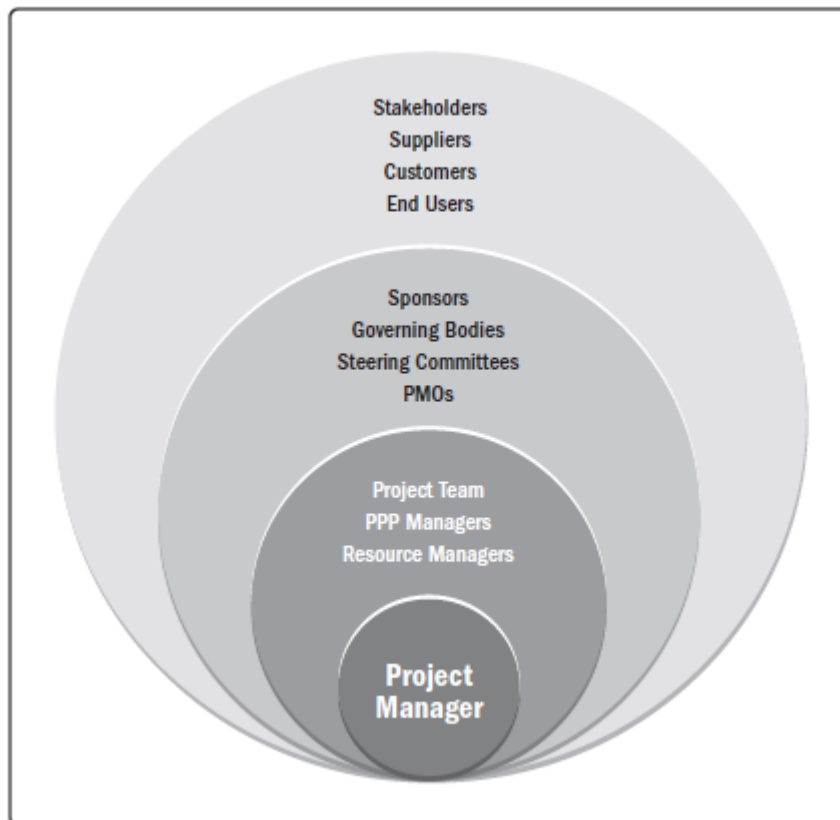
The Stakeholder Management Plan will provide guidance for stakeholder engagement to ensure that it is aligned with best practice standards at the regional and international levels. Stakeholders will be engaged and provided with an opportunity to share inputs into the project's deliverables during Project Board Meetings. Roles and responsibilities will be outlined within the plan, and there will be continuous monitoring and evaluation to ensure that key stakeholders are satisfied with the project's progress.

Early identification and communication with stakeholders is needed to ensure the success of the Standardized Procurement Project by gaining support and input for the project. The CDEMA CU will ensure that there is transparency and accountability with stakeholders throughout the life of the project.

4.5.2 Roles and Responsibilities

Chart 22: Stakeholder Management Roles and Responsibilities (Source: author)

ROLE	RESPONSIBILITIES
Project Sponsor	• Early engagement with key stakeholders during the planning phase of the Project. • Endorses and approves the project's stakeholder management plan.
Implementing Agency – CDEMA CU	• Engagement with the organization's business units. • Champion for the project with Participating States and other regional stakeholders. • Ongoing communication with stakeholders. • Endorses and approves the project's stakeholder management plan.
Project Manager	• Responsible for the development of the Stakeholder Management Plan. • Responsible for the mapping of stakeholder profiles to communications activities. • Maintains all relevant stakeholder information. • Leads the project team through the identification and analysis of stakeholders. • Liaises with the Communications Officer to ensure communication strategy is applicable for each stakeholder.
Project Board	• Responsible for the regular review of the stakeholder management plan. • Responsible for the endorsement of the overall approach to stakeholder engagement.
Communications Officer	• Review all communication being shared with stakeholders to ensure it meets the organization's standards.

4.5.3 Identify and Analyze Key Stakeholders

As noted above, the project's stakeholders were identified from previous projects. Additional criteria will be used to determine these stakeholders' applicability and relevance to the Standardized Procurement Project.

The following criteria will be used to determine if an individual will be included as a stakeholder:

1) Will the person or their organization be directly or indirectly affected by this project?
2) Does the person or their organization hold a position from which they can influence the project?
3) Does the person have an impact on the project's resources (material, personnel, funding)?
4) Does the person or their organization have any special skills or capabilities the project will require?
5) Does the person potentially benefit from the project or are they in a position to resist this change?

Any individual who meets one or more of the above criteria will be identified as a stakeholder. Stakeholders from the same organization will be grouped in order to simplify communication and stakeholder management. Key stakeholders will be included in the Project Board and will have decision-making authority. Given the scope of the project, no more than two key stakeholders excluding the Project Sponsor, Project Manager and the CDEMA CU may participate in these meetings. The identification of stakeholders was performed at the level of the organization during its monthly Management Team meeting. Stakeholders who should be involved in the project were documented.

A brainstorming session was also conducted with the Project Manager and sponsor to identify any other individuals who may have an interest or impact on the

project. These are all highlighted below in the Categorization of Key Stakeholders chart.

Once the project's stakeholders have been identified, the project team will categorize and analyze each stakeholder. The purpose of this analysis is to determine the stakeholders' level of power or influence, plan the management approach for each stakeholder, and to determine the appropriate levels of communication and participation each stakeholder will have on the project.

The project team will categorize stakeholders based on their organization or department. Once all stakeholders have been categorized, the project team will utilize a power/interest matrix to illustrate the potential impact each stakeholder may have on the project. Based on this analysis the project team will also complete a stakeholder analysis matrix that illustrates the concerns, level of involvement, and management strategy for each stakeholder.

For this project, we will look at the interest, impact and influence or power levels that each stakeholder has on the project. Smith (2000) defines influence as a stakeholder's relative power over and within a project. He advised that a stakeholder with high influence would control key decisions within the project and have strong ability to facilitate implementation of project tasks and cause others to take action. In this instance, these stakeholders for the project would be the sponsor, CDEMA CU, Project Board, Project Team and the consultant. The level of interest measures the stakeholder's interest in the project. Those stakeholders with high power but low interest have the ability to make decisions that may impede the project's success. Although they do not need to be involved at every phase of the project, they will be kept informed of the status of the project's activities through the communication channels and frequency outlined in the project's communication plan.

4.5.4   Categorization of key stakeholders

Chart 23: Categorization of Stakeholders (Source: author)

Stakeholder Name/Group	Interest and Impact Levels	Level of Influence (H or L)	Stakeholder strategies	Engagement	
				One Way	Two Way
Sponsor	Interest: High Impact: High	H	Consult, involve and keep informed Project Board Member		✓
CDEMA CU	Interest: High Impact: High	H	Consult, involve and keep informed Project Board Member		✓
Project Board	Interest: High Impact: High	H	Consult, involve and keep informed		✓
Project Manager	Interest: High Impact: High	H	Consult, involve and keep informed Project Board Member		✓
Chief Accountant	Interest: High Impact: Medium	L	Keep informed and support	✓	
Project Team	Interest: High Impact: High	L	Involve and keep informed	✓	
Consultant	Interest: High Impact: High	H	Consult, involve and keep informed		✓
Suppliers and Vendors	Interest: High Impact: Low	L	Consult, involve and keep informed		✓
CDEMA CU Staff	Interest: High Impact: High	H	Consult, involve, keep informed		✓
CDEMA Participating States and Staff	Interest: High Impact: High	H	Consult, involve, keep informed TAC Member		✓
General public	Interest: Low Impact: Low	L	Keep informed	✓	

Stakeholders with high interest and high power must be monitored closely as these are key to the project. These stakeholders typically have a high influence on the

outcome of the project, so it is recommended that they be engaged throughout the project. For this project, these key stakeholders have been selected to serve on the Project's Board. Interest can wane, so the document must always be updated to include those new stakeholders who may have such an impact on the project after this planning process has been completed.

The matrix below shows the categorization of stakeholders from the categorization above.

High	**_Keep Satisfied_**	**_Manage Closely_** Project Sponsor CDEMA CU CDEMA PSs Project Manager Project Board Consultant
	Monitor Chief Accountant General Public	**_Keep Informed_** Suppliers and Vendors Project Team
Low	**I M P A C T**	
		High
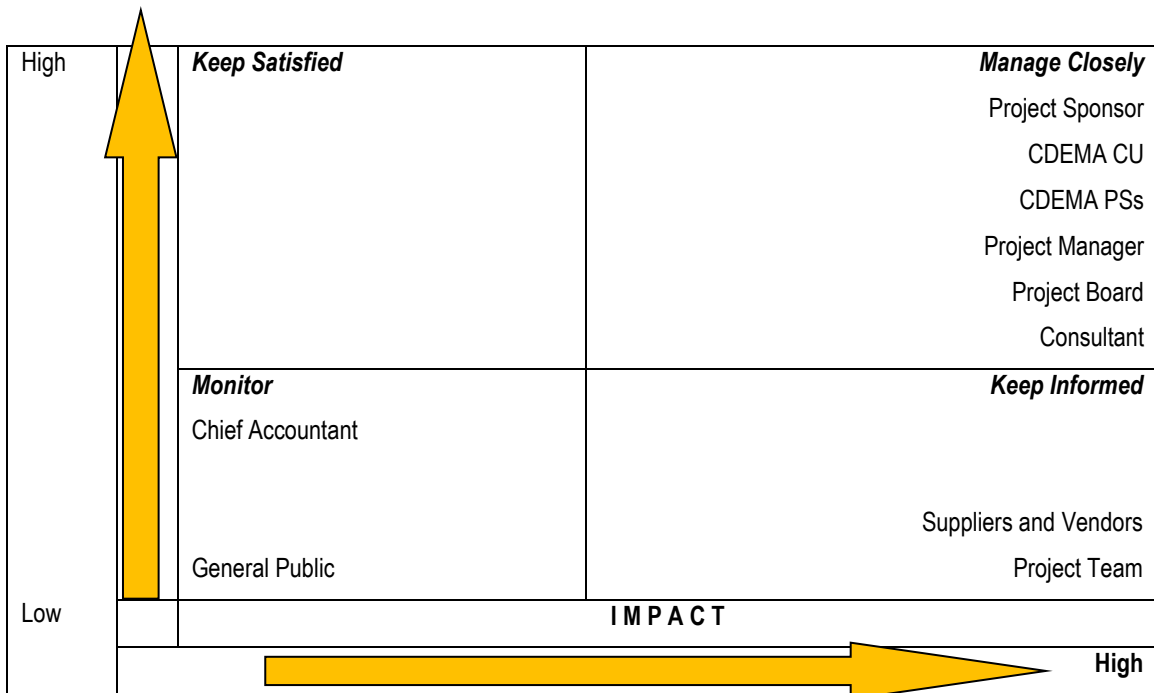
4.5.5 Plan Stakeholder Engagement

This is the process where approaches are developed to involve project stakeholders based on their needs, expectations, interests and perceived impact on the project. The diagram below displays the inputs that the Project Manager will utilize for this project.
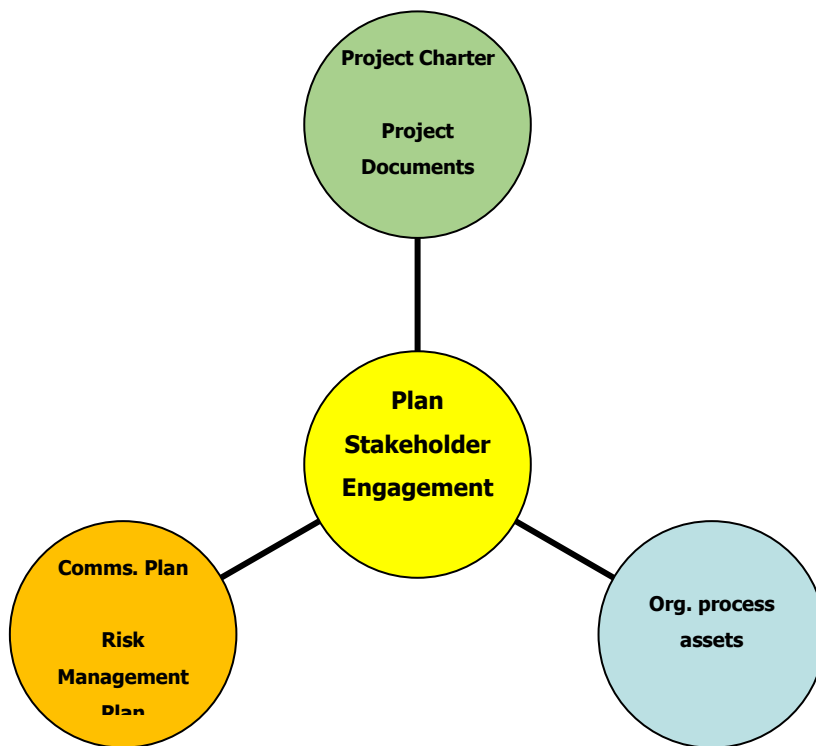
Figure 18: Stakeholder Engagement Inputs. (Source: Author)

Immediately after identifying and analyzing stakeholder process, the Project Manager and team will commence the planning for stakeholder engagement. This is done in the early stages of the project, to ensure that those stakeholders who may have an impact on the project are engaged as early as possible to keep their interest levels optimum. The plan is monitored and updated throughout the project's life to ensure that these levels remain optimal.

The Project Manager and team reviews the project charter, project management plan subsidiary plans including the communications and risk management plan and any other relevant project documents. Documents from within the implementing agency are also reviewed at this stage including CDEMA's overall communications plan; policies and procedures related to risk, change and

data management and records management. Expert judgement will be used in this process with expertise being solicited from subject matter experts within the organization.

4.5.6   Monitoring Stakeholder Engagement

For this process, the Project Manager will monitor, evaluate and tailor strategies to ensure that stakeholders are adequately engaged based on their levels of interest, impact and influence. The key benefit of these processes is that it maintains or increases the efficiency and effectiveness of the stakeholder engagement activities as the project evolves and interests change (PMI, 2017). This is a continuous process throughout the life of the project.
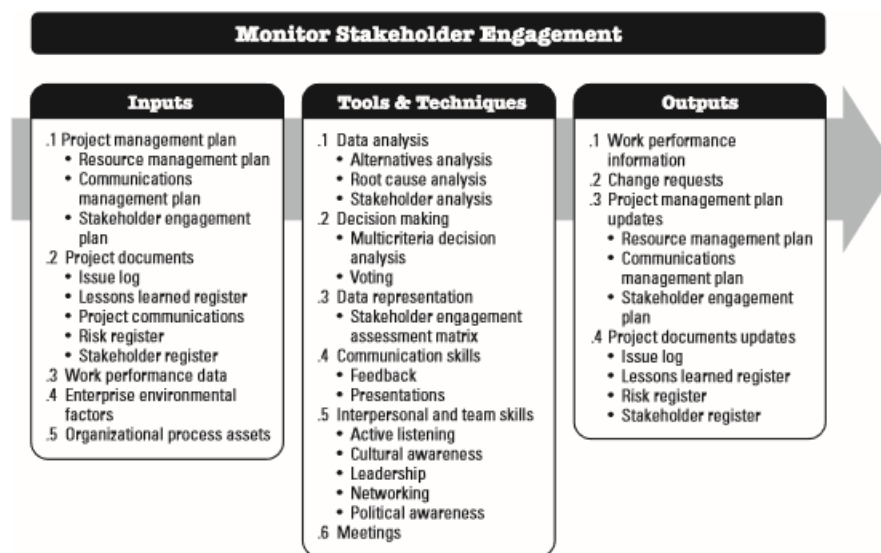
Figure 19: Monitor Stakeholder Engagement: Inputs, Tools & Techniques, and Outputs. Reprinted from A Guide to the Project Management Body of Knowledge (p. 530), Project Management Institute 2017 by Project Management Institute.

The project team who may have greater contact with stakeholders than the project manager are key during these processes, as any deviations in interest communicated to them should be relayed to the Project Manager – especially if interest has changed from the initial analysis. Through discussions with the project

management team alternative analysis will be used to garner options to respond to variances in the desired results of stakeholder engagement. During the team's regular status meetings discussion around maintaining stakeholder interests will be discussed and alternatives shared.

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4.6   QUALITY MANAGEMENT PLAN

4.6.1   Quality Management Plan Introduction

Project Quality Management includes the processes for incorporating the organization's quality policy regarding planning, managing and controlling poject and quality requirements in order to meet stakeholders' objetives (PMI, 2017). The Quality Management Plan for the Standardization of Procurement project will build into the project, the activities, processes, and procedures already established by the CDEMA CU to ensure a quality product upon the conclusion of the project.

The Project Management Institute outlines the following processes as part of the project quality management:

1. Plan Quality Management
2. Manage Quality
3. Control Quality

Chart 24: Quality Management Plan Summary (Source: author)

Processes	Activities	Results
Plan Quality Management	1. The process of identifying quality requirements and/or standards for the project and its deliverables, and documenting how the project will demonstrate compliance with quality requirements and/or standards (PMI, 2017).	Approved quality management plan.
Manage quality	2. The process of translating the quality management plan into executable quality activities that incorporate the organization's quality policies into the project (PMI, 2017).	Quality reports, change requests.
Control quality	3. The proess of monitoring and recording the results of executing the quality management activities to assess performance and ensure the project outputs are complete, correct, and meet customer expectations (PMI, 2017).	Quality control measurements, verified deliverables.

4.6.2 Quality Management Plan Approach

For purposes of this project management plan, our primary focus will be on Plan Quality Management. The purpose of Plan Quality Management will be to ensure the following:

1) Quality is planned
2) Define how quality will be managed
3) Define quality assurance activities

The CDEMA CU will use its already established quality process to ensure that quality is not only built into the project, but that approval is granted through its governance mechanism for the project's deliverables. During the planning phase for the project, the draft project plan would have been shared with the members of the Technical Advisory Committee (TAC) for their review and 'go ahead' for the project. The governance mechanisms of the organization includes those key stakeholders who will be recipients of the deliverables and include National Disaster Coordinators (NDCs) for its 18 Participating States, as well as Technical similar insitutions within the Caribbean Region. Through their annual meeting, the project's deliverables will be presented to these stakeholders for feedback. The Project Manager will be in attendance at this meeting, and will collate the feedback for presentation to the consultant. The consultant will update the deliverables as needed, and the updated document will then be presented to the highest level of the governance mechanism which are the Ministers with Responsibility for Disaster Management within CDEMA's 18 Participating States. Once the deliverables have been approved through this mechanism, they can be considered final.

4.6.3 Plan Quality Management

The Project Management Institute advises that the key benefit of this process is that it provides guidance and direction on how quality will be managed and verified throughout the project (PMI, 2017). The inputs, tools and techniques and outputs from the Project Management Institute are below.

Plan Quality Management

Inputs	Tools & Techniques	Outputs
.1 Project charter .2 Project management plan • Requirements management plan • Risk management plan • Stakeholder engagement plan • Scope baseline .3 Project documents • Assumption log • Requirements documentation • Requirements traceability matrix • Risk register • Stakeholder register .4 Enterprise environmental factors .5 Organizational process assets	.1 Expert judgment .2 Data gathering • Benchmarking • Brainstorming • Interviews .3 Data analysis • Cost-benefit analysis • Cost of quality .4 Decision making • Multicriteria decision analysis .5 Data representation • Flowcharts • Logical data model • Matrix diagrams • Mind mapping .6 Test and inspection planning .7 Meetings	.1 Quality management plan .2 Quality metrics .3 Project management plan updates • Risk management plan • Scope baseline .4 Project documents updates • Lessons learned register • Requirements traceability matrix • Risk register • Stakeholder register

Figure 20: Plan Quality Management.

In planning for quality, the project manager will review best practice standards and methodologies for incorporating quality assurance into the project. The project charter, project management plan and other project documents will serve as inputs into this process. Expert judgement will be sought from subject matter experts within the organization who had had experience with similar types of projects. The Project Management Institute recommends that quality planning be performed in parallel with other planning processes (PMI, 2017). The Project Manager will therefore ensure that quality standards are maintained throughout the project by ensuring that changes to the project's scope, schedule and costs stay within the quality guidelines. The project will seek to be proactive when making decision on quality and not reactive – reacting to stakeholders who perceive that the project's quality standards were not met. Beneficiaries of the project will be monitored closely as their feedback on the project's deliverables will be crucial to the project's success.

Standards for procurement will be reviewed at the regional and international levels with support from partner agencies like the Caribbean Development Bank and others from the CDEMA system. The International Standard for Quality Management (ISO 9000 series) will be reviewed by the project team and wherever

possible within the scope of the project, some of these standards will be implemented. The key benefits of implementing these quality standards for the CDEMA CU will include increased customer satisfaction; improve customer loyalty; regain its competitive advantage; and attract new customers (projects); Throughout the project, project team meetings will be used to assess the quality of the project's deliverables.

The Agency will utilize its existing governance mechanism to review and provide technical input into the project at the mid-term and final evaluation points. Good governance through two-way communication with the Project's Board on all quality assurance issues with be prioritized so that the organization's quality standards are not diminished. In addition, expert judgement will be sought from those individuals within the organization and CDEMA's partners with the appropriate technical expertise to ensure that the project's final deliverable meets its purpose. This will be done during CDEMA's annual Technical Advisory Committee (TAC) meeting where the final deliverable will be presented as the final stakeholder engagement session. With the TAC's approval, the document can then, be released to all stakeholders.

Below, a basic quality metrics has been developed for this project based on the scope, timeline and budget. The Project Team during their weekly meetings will review the status of the project as it relates to these constraints to ensure that quality standards are satisfied.

Chart 25: Quality Metrics (Source: author)

Quality Requirements	Quality Metrics	Quality Metrics description	Result	Responsible	Frequency
Scope	Percentage of activities completed by	Activities completed/activities planned	Greater than 90%	Project Team	Weekly

	deliverable				
Schedule	Schedule Perfomance Index (SPI)	SPI = Earned Value/Planned Value	Equal to or greater than 1	Project Team	Weekly
Cost	Cost Performance Index	CPI = Earned Value/Actual Costs	Less than 1	Project Team	Weekly

4.6.4 Manage Quality

For this process, the Project Manager will translate the quality management plan into executable quality activities that incorporate the organization's quality policies into the project. The PM will review the project management plan, project documents and use the organizational process assets as inputs into this process. For this process, the PM will engage in discussion with CDEMA's Planning and Business Development Manager who serves as the defacto quality assurance specialist for the organization.

The quality metrics outlined above will be followed by the project team during their weekly meetings. A checklist will be used to verify the completion of the project's activities as outlined in the project's WBS.

The project team will strive for continual improvement by following the 'Plan, Do, Check and Act cycle as a way of testing and adjusting the application of the policies and procedures for the project. The American Society for Quality (n.d.) recommends this process when starting a new development project; improving a design process, product or service; defining a repetitive work process; implementing any change or simply working towards continuous improvement. The process will require the Project Manager and team to do the following:

1. Recognize an opportunity and plan a change. CDEMA has already recognized that there was an opportunity to improve its procurement processes by building capacity within the organization through this Standardization of Procurement project.

2. Test the change. Once the project deliverables have been completed, each process will be tested to ensure that they are meeting the required specifications.

3. Review the results and document lessons learnt.

4. Finally, take action based on the lessons learnt. Tweak the project plan to incorporate those changes that will enhance the project, or eliminate those processes that may negatively affect the project.

4.6.5 Control Quality

In this process, the Project Team will closely monitor and record the results of executivng the manage quality management processes outlined above to assess performance. The Project Management Insitute indicates that the key benefit for this process is verifying that project deliverables and work meet the requirements specified by key stakeholders for final acceptance (PMI, 2017).

A change log will be used though the Change Control process and will indicate whether the changes have been approved or denied.

4.6.6 Quality Roles and Responsibilities

In the below chart are the roles and responsibilities of those team members who manage some aspects of quality for the project.

Chart 26: Quality Management Roles and Responsibilities (Source: author)

Role	Responsibilities
Project Team	- Identify, report, review and/or analyze project deliverables and/or work products, focusing on quality characteristics such as completeness, consistency, alignment with Agency standards, alignment with project's standards, fit for purpose, etc. - Follow the quality plan.
Project Manager	- Communicates quality (risks and issues) to internal and external stakeholders. - Communicates with project staff regularly to direct project activities and stay current on project quality status. - Communicates with Agency's Management Team and sponsor to report any quality related issues. - Monitors milestones, activities, timelines, resources, budgets and quality. - Communicates with project's technical staff and project technical consultants on quality related issues. - Approves quality plan.
Project Accountant	- Identifies and escalates any critical project issues to the Project Manager. - Establishes technical policies, processes, procedures and defined quality standards. - Executes technical policies, processes, procedures and ensures adherence to defined quality standards. - Communicates project status, quality (risks and issues) to the Project Manager.
Sponsor	- Reviews and approves quality management plan.

CDEMA CU	- Reviews and provides inputs into the quality management plan.

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4.7   RESOURCES MANAGEMENT PLAN

This process is part of the Project Resource Management processes identified by the Project Management Insitute. Given the scope, cost and timeframe for the project, the other resources required will be given as in-kind contributions by the CDEMA CU. The Project Resources Management includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project (PMI, 2017).

The Project Resources Management processes as identified by the Project Management Institute are:

Chart 27: Resources Management Plan Summary (Source: author)

Processes	Activities	Results
Plan Resource Management	1. The process of identifying how to estimate, acquire manage and utilize physical and team resources (PMI, 2017).	Approved Plan Resource management plan.
Estimate Activity Resources	2. The process of estimating team resources and the type and quantities of material, equipment, and supplies necessary to perform project work (PMI, 2017).	Resource requirements.
Acquire Resources	3. The process of obtaining team members, facilities, equipment, materials, supplies, and other resources necessary to compelete the project work (PMI, 2017).	Project Team assignments.
Develop Team	4. The process of improving competencies, team member interaction, and the overall team environment to enhance project performance (PMI, 2017).	Team performance assessments.
Manage Team	5. The process of tracking team member performance, providing feedback, resolving issues, and managing team changes to optimize project performance (PMI, 2017).	Change requests.
Control Resources	6. The process of ensuring that the physical resources assigned and allocated to the project are available as planned, as well as monitoring the planned versus actual use of resources, and performing corrective action as necessary (PMI, 2017).	Work performance information

A snapshot of the processes including inputs, tools and techniques and possible outputs are provided below.

Figure 22: Plan Resources.

4.7.1 Plan Resources Management Plan Introduction

Plan resources management is an important component of this project. Although limited new human resources will be acquired for this project, a number of existing staff within the CDEMA CU will provide expert judgement into several of

the management plans, and resources will therefore be shared as in-kind contributions from the organization.

The human resources management plan is a tool, which will aid in the management of this project's human resource activities throughout the project until closure. The plan will include the processes necessary to identify, acquire, and manage the resources for the project's completion. Inputs into this process will include meetings where expert judgement from working with previous projects will be utilized and decisions made on the applicability of these procedures to this project. There are 5 processes during this phase, and these include (a) planning resource management; (b) estimating activity resources; (c) acquiring resources; (d) developing the team; (e) managing the team; and (f) controlling resources.

4.7.2   Plan Resource Management and Estimate Resources

During the planning phase, the project team will identify and estimate what additional resources are required. Resource planning will be used to determine and identify an approach to ensure that sufficient resources are available for the successful completion of the project (PMI, 2017).

Given the size and scope of this project, this activity will be performed once. The Project Manager will review the project charter, project management plan and other project documents as inputs into this process. Human resources policies and procedures, as well as safety and security policies will be an additional input. A review of previous similar projects related to the development of policy documents, hiring of consultant and training programs will be undertaken during this phase. Meetings will be conducted with key members of the organization, such as the Human Resources and Administration Manager who currently leads on procurement activities; Procurement Officer and the Management team will be one of the tools used to gain additional insight into the resource needs for the project.

The purpose of the plan will be to ensure that project staff are acquired at the right time required to ensure the success of the project. The Project Manager has already been acquired for this project. In-kind contributions in the form of technical support will be provided by the Project Accountant and Project Assistant, whilst a consultant will be hired to oversee the development of the training plan and implementation of training for the Standardization of Procurement within the organization. The CDEMA CU's current resource allocation will be reviewed, as well as its current human resource policies and procedures. Meetings will be convened with the Human Resources and Administration Manager to identify internal talent resources and their respective availability over the life of the project. The project's organization chart is provided below.
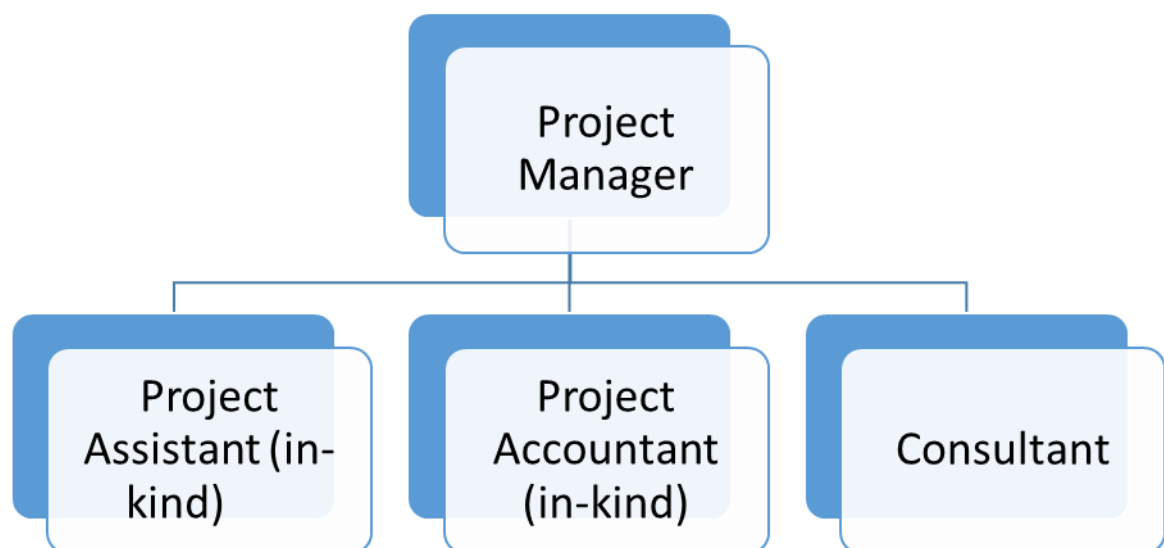
Figure 23: Project Organization Chart.

Other resources as identified for the project are outlined below. These resources will be provided as in-kind support by the CDEMA CU.

1. Office space when required by the Project Manager who will require office space at least one day during the week for the weekly meetings.

2. Laptop and cellular phone.

3. Stationery (pens, pencils, paper, tape, correction tape, calculator, binding combs for project documents).

4. Access to organization's server for storing of filing documents, as well as dedicated cabinet space for storing hard copies of documents.

The roles and responsibilities of each have been identified throughout the project management plan. A summary of these are provided below:

Chart 28: Resources Management Roles and Responsibilities (Source: author)

	Role	Responsibility
1.	Project Manager	- Overall success of the project. - Manages the human resources for the project. - Ensures that the project is completed within scope, budget and schedule, maintains the quality standards established by the CDEMA CU. - Reports to the CDEMA CU and Project Sponsor. - Provides reports to the sponsor, implementing partner and the project's Board.
2.	Project Assistant	- Supports the project through the completion of administrative processes including the scheduling of project meetings and accurate taking of meeting minutes. - Reviews and actions project correspondence with guidance from Project Manager.
3.	Project Accountant	- Ensures all financial transcations are updated in QuickBooks. - Provides timely reports to the Project Manager and Team on planned versus actual expenditures.

4.	Consultant	- Creation of training plan for updated standardized procurement policy and procedures.
		- Implementation of training and its evaluation.
		- Submission of consultancy's reports to Project Manager.

A responsibility assignment matrix will be developed by the Project Manager. This chart will be basic in nature due to the limited project resources. The chart will be created simply as a project mapping resource to ensure that only one person is assigned and leads on each task. A sample RACI (responsible, accountable, consult and inform) is provided below.

Chart 29: RACI Chart (Source: author)

RACI Chart	Person			
Activity	Project Manager	Sponsor	Procurement Officer	CDEMA CU
Create Charter	R	I	C	A
Review Change requests	R	C	I	C
Collect requirements	R	I	I	I
	R=responsible A=accountable C=consult I=inform			

4.7.3 Acquire Resources

The resources which will be acquired for the project are the Project Manager and the Consultant. The Project Manger will be acquired through the standard procurement process for the CDEMA CU, and will be the first member of the team acquired. He will complete most of the work for the project management plan with support from the organizational human resources assets.

The Consultant will be hired after the Project Manager and the Project Manager will lead this process with support from the Human Resources and Administration Manager. The Project Manager will review the project management plans already created as inputs into his decision-making. The budget already created and schedule will be reviewed to ensure that hiring stays within scope and budget.

The other resources identified for the project does not require procurement as these are found within the CDEMA CU, as such; they will be acquired when needed. The Project Manager will follow-up periodically with the Human Resources and Administration Manager to verify that the resource will be available during the time period required, and that the resource has the competencies required for the project.

4.7.4 Develop Team

In this process, improving competencies of the team will be the primary importance. Given the timeframe for the project, development of the team will focus on increasing technical capacities through the use of subject matter experts from within the CDEMA CU. Teamwork is a critical factor for project success, and developing effective project teams is one of the primary responsibilities of the project manager (PMI, 2017). Although this project's team is small ensuring cohesiveness will be vital to the success of the project. This can be done during the weekly team meetings, where the project manager will motivate the team and welcome their inputs into the project. Open and effective communication will be utilized and collaborative decision making and problem solving will be encouraged.

Communication technology will be used to foster team concerns. A shared file folder on the network will be used for information sharing, as well as the creation of a webpage for the project. In addition, video communication using tools, such as Skype and Zoom will be utilized for interaction between the Project

Manager, Project Team and Consultant when either are offsite, as well as email and chat for regular communications.

Team Performance Assessments will be conducted at specific stages throughout the project. For those employees who are providing in-kind support, the Project Manager will input into their annual Performance Appraisals on their performance within the project. The PM will address the strengths and weaknesses of the team member and offer recommendations for improvement whether it be through training or one-on-one coaching to improve the employee's capacities.

4.7.5 Manage Project Team

The Project Team will be managed by the Project Manager when completing activities related to the project. The key benefit is that it influences team behavior, manages conflict and resolves issues (PMI, 2017). The Project Manager will make informal assessments of the team's performance and identify any issues, which may impact the team.

The conflict management technique will be used with the support of the Human Resources and Administration Manager who will serve as the impartial arbitrator. She will utilize the five general techniquest when seeking to resolve conflicts as outlined by the Project Management Institute below.

- ○ *Withdraw/avoid.* Retreating from an actual or potential conflict situation; postponing the issue to be better prepared or to be resolved by others.
- ○ *Smooth/accommodate.* Emphasizing areas of agreement rather than areas of difference; conceding one's position to the needs of others to maintain harmony and relationships.
- ○ *Compromise/reconcile.* Searching for solutions that bring some degree of satisfaction to all parties in order to temporarily or partially resolve the conflict. This approach occasionally results in a lose-lose situation.
- ○ *Force/direct.* Pushing one's viewpoint at the expense of others; offering only win-lose solutions, usually enforced through a power position to resolve an emergency. This approach often results to a win-lose situation.
- ○ *Collaborate/problem solve.* Incorporating multiple viewpoints and insights from differing perspectives; requires a cooperative attitude and open dialogue that typically leads to consensus and commitment. This approach can result in a win-win situation.

4.7.6 Control Resources

The Project Manater is the owner for this process and will ensure that resources assigned and allocated are available when required. As many of the resources are in-kind support, this will mean constant communication with CDEMA's Human Resources and Administration Manager to ensure that there are no bottlenecks for the project. Any challenges with resources may cause delays in implementation. The resources needed for the project should be released at the right time and right amount for the project. The Project Management Institute notes that this process is primarily concerned with the physical resources, such as equipment, materials, facilities and infrastructure. For this project, this would be the office space for the project manager and team, equipment, such as laptop and cell phone and stationery supplies.

4.7.7 Roles and Responsibilities

Chart 30: HR Management Roles and Responsibilities (Source: author)

ROLE	RESPONSIBILITIES
Project Manager	- Oversight of the project team and project deliverables. - Responsible for the creation of the human resources management plan. - Must authorize all project expenditures. - Must ensure that quality standards are met. - Provide feedback on project team members including for those human resources which are shared across departments (Project Accountant and Administrative Officer). - Acquiring human resources for the project.
Consultant	Responsible for the delivery of the procurement training component of the project.

	• Coordinates with the Project Manager training times and locations.
	• Provides status updates to the Project Manager on the training provided.
	• Prepares a final report of the training including evaluation of the training component.
Functional Managers	• Responsible for providing resources from their respective units to support the project.
	• Liaising with the Project Manager to identify competencies required for the project.

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4.8   RISK MANAGEMENT PLAN

4.8.1   Risk Management Introduction

The management of risk is a continuous process throughout the life cycle of the project. Project risk management includes conducting risk management planning, identifying risk, analysing risk using either qualitative and/or quantitative methods, creating plans to counter risks, implementing the necessary risk responses and monitoring risks (PMI, 2017).

Chart 31: Risk Management Plan Summary (Source: author)

Processes	Activities	Results
Plan Risk Management	1. The process of defining how to conduct risk management activities for a project (PMI, 2017).	Approved Risk Management plan.
Identify Risks	2. The process of idenfiying individual project risks, as well as sources of overall project risk, and documenting their characteristics (PMI, 2017).	Risk register, risk report.
Perform Qualitative Risk Analysis	3. The process of prioritizing individual project risks for further analysis or action by assessing their probability of occurrance and impact, as well as other characteristics (PMI, 2017).	Project document updates.
Perform Quantitative Risk Analysis	4. The process of numerically analyzing the combined effect of identified individual project risks and other sources of uncertainty on overall project objectives (PMI, 2017).	Project document updates.
Plan Risk Responses	5. The process of developing options, selecting strategies, and agreeing on actions to address overall project risk exposure, as well as to treat individual project risks (PMI, 2017).	Change requests.
Implement Risk Responses	6. The process of implementing agreed upon risk response plans (PMI, 2017).	Change requests.
Monitor Risks	7. The process of monitoring the implementation of agreed-upon risk response plans, tracking identified risks, identifying and analyzing new risks, and evaluating risk process effectiveness throughout the project (PMI, 2017).	Change requests.

An analysis of risks is carried out for all projects being implemented by the CDEMA CU, and mitigation measures are outlined during the initial planning phase of the project. These processes as outlined by the Project Management Institute are noted below in Figure 18. Given the size and scope of this project, a simplified approach to risk management will be utilized.
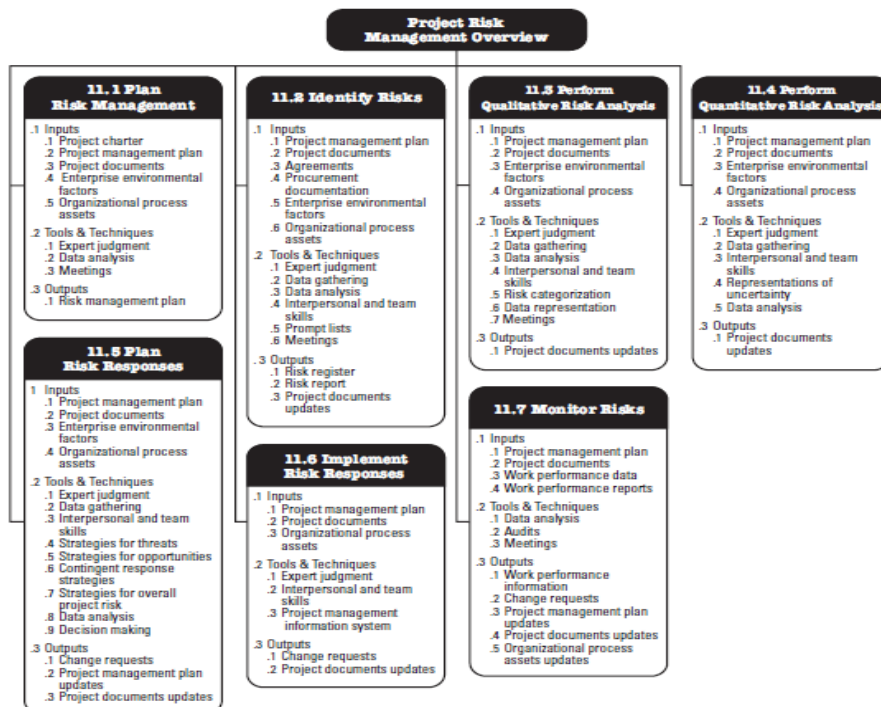
Figure 24: Project Risk Management Overview. Reprinted from A Guide to the Project Management Body of Knowledge (p.396), Project Management Institute 2017 by Project Management Institute.

4.8.2 Risk Management Approach

The main objective of the risk management plan will be to identify risks specific to the project and outline measures to counter those risks, which may negatively impact the project. The Project Manager has oversight of the project and managing project risks. Throughout each stage of the project, and during weekly project team meetings, risks will be discussed and assessed. Risks, which were

not identified earlier, will be classified and a mitigation strategy developed. Risks will be assessed using the probability of risk occurrences as outlined below:

Chart 32: Probability of Outcomes (Source: author)

Probability of Outcomes		
Definition	Meaning	Value
Frequent	Occurs regularly	5
Likely	Occurs less frequently if process is corrected	4
Occasional	Occurs infrequently	3
Seldom	Unlikely to occur	2
Improbable	Highly unlikely to occur	1

The most likely and highest impact risks will be added to the project schedule. This will ensure that the project management team takes the necessary steps to implement risk response strategies at the appropriate time in the project's schedule. A sample risk assessment matrix from the United States Department of Health and Human Services is provided below to guide the Project Manager.

Probability of Occurrences			Catastrophic	Critical	Moderate	Minor	Negligible
Definition	Meaning	Value	(A)	(B)	(C)	(D)	(E)
Frequent	• Occurs frequently • Will be continuously experienced unless action is taken to change events	5	5A	5B	5C	5D	5E
Likely	• Occur less frequently if process is corrected • Issues identified with minimal audit activity • Process performance failures evident to trained auditors or regulators	4	4A	4B	4C	4D	4E
Occasional	• Occurs sporadically • Potential issues discovered during focused review.	3	3A	3B	3C	3D	3E
Seldom	• Unlikely to occur • Minimal issue identification during focused review	2	2A	2B	2C	2D	2E
Improbable	• Highly unlikely to occur	1	1A	1B	1C	1D	1E

Figure 25: Risk Assessment Matrix. Reprinted from the United States Department of Health and Human Services. Risk Management Plan. https://www.phe.gov/about/amcg/contracts/Documents/risk-management.pdf

4.8.3 Plan Risk Management

This is the process of defining how to conduct risk management activities for the project. The project team will perform this process during the planning phases of the project to verify that the project is a feasible one and not easily susceptible to high level risks which could derail the project. The Project Manager will use the project's charter, subsidiary project management plan, organizational assets and project documents as inputs into the process.

Expert judgement will be sought from individuals with specialized knowledge or training on the types of risks that are likely to be encountered on projects in the same area. The plan will be developed during the project's kick-off meeting where key stakeholders will be engaged to provide input into the process. These will include the project manager and representatives from the CDEMA CU. The Project Manager will collect information on all risks identified for the next phase of the Risk

Management process. A simple Risk Breakdown Structure (RBS) from the Project Management Institute is proposed below which will categorize the risks into the following four areas.

Chart 33: Simple Risk Breakdown Structure (Source: Project Management Institute)

RBS Level 0	RBS Level 1	RBS Level 2
0. All sources of Project Risk	1. Technical Risk	1.1. Scope definition
		1.2. Requirements definition
		1.3. Estimates, assumptions, and constraints
		1.4 Technical processes
	2. Management Risk	2.1. Project management
		2.2. Program/portfolio management
		2.3. Operations management
		2.4. Organization
		2.5. Resourcing
		2.6. Communication
	3. Commercial Risk	3.1. Contractual terms and condititions
		3.2. Internal procurement
		3.3. Suppliers and vendors
		3.4. Client/customer stability
		3.5. Partnerships and joint venture
	4. External Risk	4.1. Legislation
		4.2. Environmental/weather
		4.3. Competition

4.8.4   Identify Risks

Identify Risks is the process of identifying project risks, as well as sources of overall project risk, and documenting their characteristics (PMI, 2017). In this process, the Project Manager will review subsidiary plans under the Project Management Plan, project documents, such as the duration estimates, cost estimates and the stakeholder register. Procurement documentation will also be reviewed as in input into this process. This process will be completed by the project team with the Project Manager as lead. This is an iterative process since new project risks may be found throughout the project's life cycle. The Schedule and Cost Management plan will be reviewed as these can show areas where there may be ambiguity and uncertainty. The other plans will also be reviewed to ensure uncertainties are also analyzed to determine whether they may pose a potential risk to the project. The Agreement for the hiring of the consultant will also need to be reviewed to capture details on milestone dates for deliverables and contract type that may pose potential threats or opportunities.

The project team will use expert judgement during their weekly meetings to brainstorm on the list of individual and overall project risks.

4.8.5 Perform Qualitative Risk Analysis

In this process individual risks will be prioritized for further analysis or action by assessing their probability of occourrence and impact, as well as other characteristics. The key benefit of this process is that it focuses efforts on high-priority risks (PMI, 2017). The figure below from the Project Management Institute outlines the inputs, tools and techniques and outputs for this process. Information from similar completed projects will be used in the review of this process.
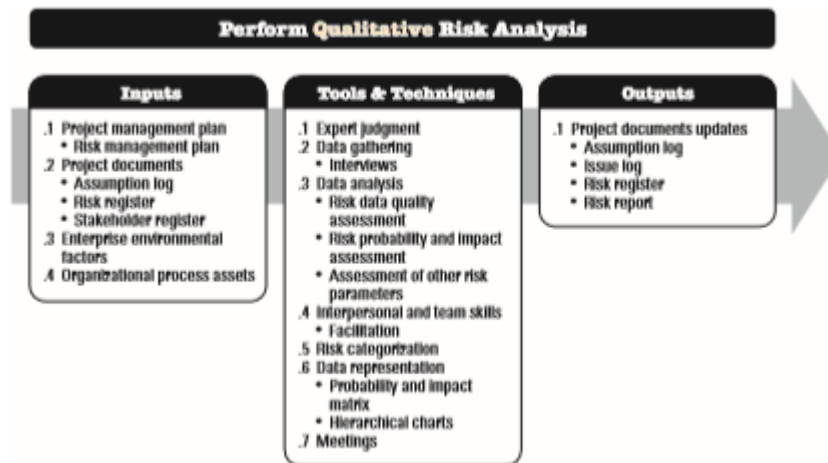
Figure 26: Qualitative Risk Analysis.

A risk register will be utilised to manage project risks. The register records risks identified during the brainstorming phase, and any new risks identified during the life of the project. A sample template of this is provided below. The Project Manager and team will populate the template once risks have been identified and an assessment of these risks completed including the probability of their occurrence, impact and response strategy. The register will be updated throughout the project's life cycle.

Chart 34: Risk Register for the project (Source: author)

Project name: Development of Project Management Plan for the Procurement Policies and
Procedures Standardization Project for the CDEMA

ID	Risk description	Likelihood of the risk occurring	Impact if the risk occurs	Severity *Rating based on impact & likelihood*	Owner *Person who will manage the risk*	Strategy *Actions to mitigate the risk e.g. reduce the likelihood*
1	Project purpose and need is not well-defined	low	High	High	Project Sponsor	**Escalate** to the Project Board with an assessment of the risk.
2	Project scope not well defined	Low	High	High	Project Sponsor	**Mitigate:** Work with the Project Sponsor and the CDEMA CU to define the scope in greater detail.
3	Project schedule is not clearly defined or understood	Low	Medium	Medium	Project Manager	**Mitigate:** Engage the project team early to update the schedule as needed through the provision of change control requests.
4	No control over staff priorities	Medium	Medium	Medium	Project Manager	**Escalate** to the Project Sponsor for discussion with the CDEMA CU. Discuss change requests and use of contingency funding to hire dedicated support staff.
5	Delays in hiring consultant to deliver training	Medium	High	High	Project Manager	**Escalate** to the Project Sponsor and Board. Discuss its impact on the scope, schedule and cost of the project and identify alternatives.

6	Estimating and/or scheduling errors	Low	low	Medium		Project Manager	**Escalate** to the Project Manager outlining the impact on the project's schedule, cost and quality.
7	Unplanned work not captured in scope of works for the project.	Low	Medium	Medium		Team Manager	**Escalate** to Project Manager.
8	Miscommunication across teams and stakeholders	Medium	High	High		Project Manager	**Accept:** Correct misunderstandings immediately.
9	Shift in stakeholders expectations	High	High	High		Project Manager	**Escalate** to Project Manager who will escalate to Project Board.

10	Scope creep	low	High	High	Project Manager	**Escalate:** Document each example and get authorization from the Project Board before initiating.
11	Unresolved project conflicts not escalated in a timely manner	Low	Medium	Medium	Project Manager	**Accept:** Convene weekly team meetings, and identify conflicts early. Engage Human Resources and Administration manager for conflict resolution.
12	Shift in business case	Low	High	High	Project Sponsor	**Accept:** Review the business case early with the Project Board.
13	Delays in completion of Project Management Plan component of project	Low	High	High	Project Manager	**Mitigate:** Use the work breakdown schedule and other tools like Microsoft Project to track the project's activities.
14	Delays in approving the project's deliverables	Medium	High	High	Project Manager	**Escalate** to Project Board.
15	Impact of Natural Disasters	Low	High	High	Project Manager	**Mitigate:** Notify Project Board early.

The top three highly probable and high impact risks to this project are:

1. Delays in implementation due to impact of natural disaster to CDEMA Participating States: Should this occur and the impact to the CDEMA Participating State(s) require the activation of the Regional Coordination Centre, the CDEMA CU will need to utilize all its internal resources to provide technical support to the Participating State(s). This can result in medium to extensive project delays, which will be initially unknown.

2. Delays in implementation due to capacity gaps in the region to source subject matter expert to deliver the consultation. This may result in the organization extending the deadline date for submission of tenders, or having to re-issue the Request for Proposals. In addition, if the consultant cannot be sourced from within the region, there is potential for cost overruns as it relates to the consultancy fees for the project.

3. Competing priorities within the CDEMA CU, which may result in delays for approval of project documents and deliverables.

4.8.6 ROLES AND RESPONSIBILITIES

Chart 35: Risk Management Roles and Responsibilities (Source: author)

ROLE	RESPONSIBILITIES
Project Manager	- Oversight of the project team and project deliverables. - Ensures that Risk Register is developed and available for use. - Conducts regular risk identification and assessments with the project team. - Ensures that there are opportunities for discussions around risks during project meetings. - Prepares Risk Management Plan. - Reports to the project sponsor any risks that are beyond the threshold outlined in the Risk Management Plan.

	• Identifies and implements Risk Mitigation Strategies as needed. • Reviews existing Risk Management Plans already developed by the CDEMA CU.
Project Team	• Support the Project Manager in Risk Management Plan activities. • Brainstorm on possible risks that may affect the project. • Recommend mitigation measures based on level of risk.

4.8.7 PLAN RISK RESPONSES

The project team will brainstorm to develop strategies to deal with those risks already identified for the project. The key benefit of this process is that alternatives are identified early in the planning process and can therefore be included as a buffer when calculating the project's budget and determining the schedule. For this process, the project team will review the project management plan and project documents. Tools used will include expert judgement, data gathering, strategies to deal with risks and alternative analysis. A data flow diagram is below, which outlines the process that the project management team will follow.
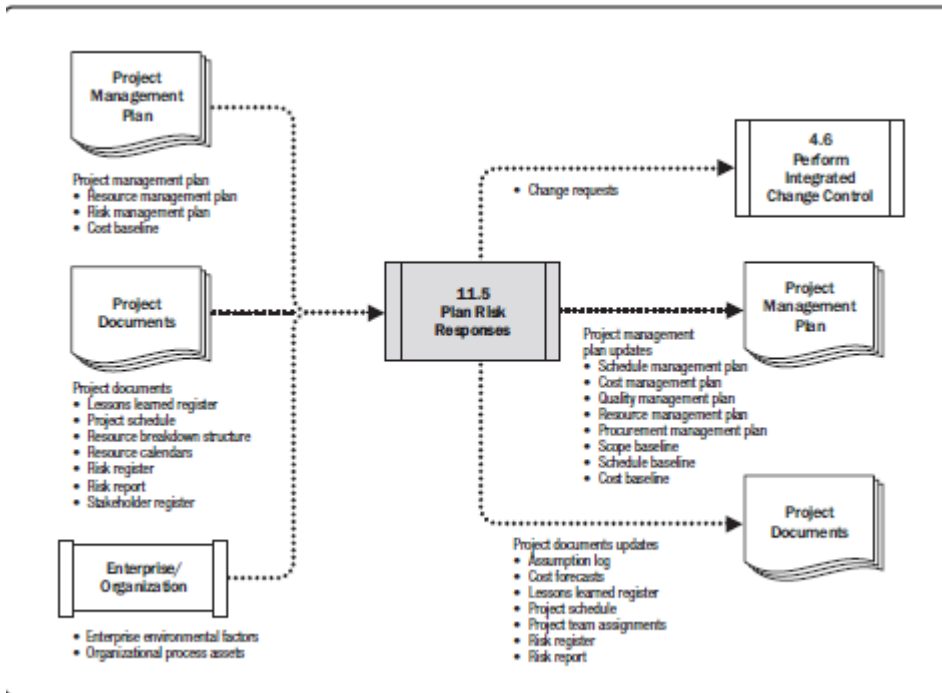
Figure 27: Plan Risk Responses: Data Flow Diagram. Reprinted from A Guide to the Project Management Body of Knowledge (p.438), Project Management Institute 2017 by Project Management Institute.

The strategies for project threats are those defined by the Project Management Institution, and are as follows:

➢ Escalate: If the threat is outside of the project's scope. The Project Manager will notify the project sponsor and the CDEMA CU. Once notified, these threats will no longer be monitored by the Project Team. The sponsor and/or the implementing partner will take further action if they deem it necessary.

➢ Avoid if the threat level is low and will not impact the project. The project team will monitor this risk, but will take no further action.

- ➢ **Mitigate: The Project Manager alternatives will be considered to reduce the probability of the risk occurrence. Mitigation measures will be identified early to inform the stakeholders. Examples of mitigation measures may include changing the date of the procurement training to a timeframe outside of the active hurricane season in the region.**

- ➢ **Accept: Alternatives were identified during the risk identification and assessment processes. The Project Manager will include costs associated with these alternatives within the project's budget through contingency reserves. In addition, the project's schedule will allow for a buffering period, where additional time is built into the project should these alternatives require.**

4.8.8 Implement Risk Responses

When the probability for risks affecting the project is high, the project team will begin to implement the risk strategies identified above. This process will be performed throughout the project with inputs from the risk management plan, risk register and other project documents and organizational process assets. The risk register will be utilized and a risk report created. Change requests will be processed through the Change Control process already identified.

The Project Manager will monitor risks throughout the life of the project. Audits will be conducted at the mid-term and final stages of the project. The mid-term review will allow for corrections or mitigation measures to be implemented to ensure the project's success.

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4.9 COMMUNICATIONS MANAGEMENT PLAN

4.9.1 COMMUNICATIONS MANAGEMENT PLAN INTRODUCTION

The project's communication plan will ensure that there is an effective exchange of project information amongst all project stakeholders. The communications plan will include the development of a strategy to ensure effective communication and carrying out the activities necessary for implementation of the strategy. The Project Management Institute (PMI, 2017) outlines the following processes that are required for an effective plan:

1. Plan Communications Management
2. Manage Communications
3. Monitor Communications

Chart 36: Communications Management Plan Summary (Source: author)

Processes	Activities	Results
Plan Communications Management	1. The process of developing an appropriate approach and plan for project communication activities based on the information needs of each stakeholder group, available organizational assets, and the needs of the project (PMI, 2017).	Approved communications management plan.
Manage Communications	2. The process of ensuring timely and appropriate collection, creation, distribution, storage, retrieval, management, monitoring, and the ultimate disposition of project information (PMI, 2017).	Project communication.
Monitor Communications	3. The process of ensuring the information needs of the project and its stakeholders are met (PMI, 2017).	Change requests.

The overview of these processes are outlined below.
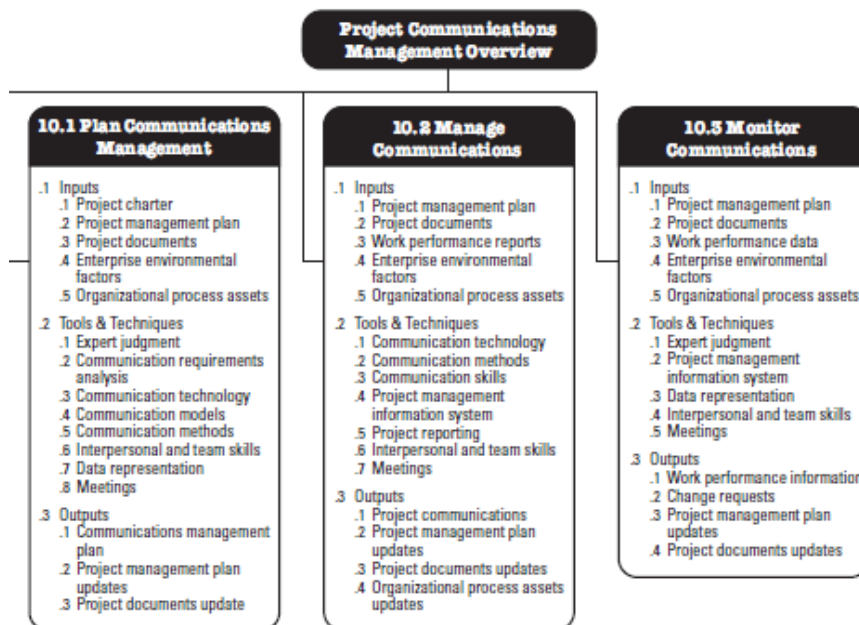
4.9.2   COMMUNICATIONS MANAGEMENT PLAN APPROACH

The Project Manager will lead the project team throughout these processes with input as required by subject matter experts such as the Communications Specialist.

Information exchange amongst the project's stakeholders will be primarily in written and spoken form. Written communication will be shared from the project's original electronic mail account.

Formal communication will be done through the project's Board Meetings and consultation and will include reports on the status of the project. A media plan will be included as part of the communications plan to ensure the adequate dissemination of project information to all stakeholders including the wider public. Given that the project's users will be the CDEMA CU, included in the communications plan will be a focus on ensuring those within the organization are kept updated on the project's activities.

Emerging trends recommend the inclusion of stakeholders in project reviews, project meetings, increased use of social computing, and multifaceted approaches to communication, and the CDEMA CU already does these through its overall communication strategy, so the goal would be to extend these activities to incorporate the needs of the project.

Change requests will follow the Change Control mechanism already established by the organization and should be submitted to the Project Manager for review and approval. Any requests that are accepted by the Project Manager will be discussed initially with the organization and project sponsor before sharing with the wider Project Board members. Given the size and scope of the project, a project communications officer will not be required. Already established communication approaches will be applied to meet the needs of each stakeholder. These will include interpersonal face-to-face communication during project meetings with both internal and external stakeholders. Small group communication will occur between the project manager, sponsor and the CDEMA CU, whilst public communication will be used at both the kick-off and final project meetings.

The CDEMA CU through its in kind contribution arrangements will provide technical support through the Communications Specialist to assist with the drafting and finalization of the plan, and its incorporation into the agency's wider communications plan and strategy for the duration of the project.

4.9.3   ROLES AND RESPONSIBILITIES

Chart 37: Communications Management Roles and Responsibilities (Source: Author)

ROLE	RESPONSIBILITIES
Project Sponsor	• Provides financial support to the organization for the implementation of the Project.

	• Reviews communication status reports shared by the Project Manager. • Approves or denies change requests.
Implementing Agency – CDEMA CU	• Reviews communication status reports shared by the Project Manager. • Approves or denies change requests. • Provides subject matter expert as in-kind contribution. • Reviews and comments on the draft communication documents.
Project Manager	• Responsible for ensuring that communications activities are performed by the project team within the budget and schedule identified in the project document. • Communicates with all stakeholders in order to determine their preferred frequency and method of communication, and update the stakeholder register with this information. • Creates the communications matrix. • Outlines the project's communication channels.
Project Board	• Approves final communication plan.

4.9.4 PLAN COMMUNICATIONS

To ensure that communication is properly planned for, the first step will be to review the stakeholder register to ensure that all project stakeholder's needs are accurately captured. With the support of the Communications Specialist a Stakeholder Directory Template was created, as well as a Communications Matrix which will guide the overall communications with each project stakeholder.

The key benefit of this process is the creation of a documented approach to effectively and efficiently engaging stakeholders by presenting relevant information in a timely manner via the medium most preferred by the stakeholder. In addition, the plan will ensure that communications expectations from each stakeholder is known and closely adhered to, whilst increasing the visibility for the project, and providing opportunities for feedback. This process is performed throughout the project as needed.

The project team will review the project charter, project management plan, project document and organizational process assets. The primary tool and technique will be the use of expert judgement based on past experiences with similar projects, a communications requirement analysis, communication technology, methods and an interview with the communications expert within the organization. The discussion with the Communications Specialist will capture details on the organizational process assets that can be incorporated into the project's communication plan. These include but are not limited to organizational policies and procedures for social media usage, ethics and security; organizational communication requirements, historical information, lessons learnt and stakeholder and communication data from previous projects.

The Stakeholder Directory will include details on the name and contact details for each stakeholder and also, their preferred method of receiving updates on the project. The template is provided below.

Chart 38: Stakeholder Directory Template (Source: author)

The Procurement Policies and Procedures Standardization Project for the CDEMA CU						
Stakeholder Directory Template						
Name	Organizat ion	Project Role	Email	Telephone	Mailing Address	Preferred Method of Contact (Email, Telephone, face to face, website)
Mr. Philmore Mullin	NODS	PS	Nodsanu@gmail.com	(268) 462-4206	Antigua and Barbuda	All
Ms. Kerry Hinds	DEM	PS	Deminfo@barbados.gov.bb	(246) 438-7575	Barbados	All
Mr.Calvin Samuel	DDM	PS	ddmaxa@gmail.com	(264) 497-2926	Anguilla	All
Captain Stephen Russell	NEMA	PS	nema@bahamas.gov.bs	(242) 322-6081	Bahamas	All
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			gov.dm	7777		
Mr. Sylvan Mc Intyre	NaDMA	PS	nadma@spiceisle.com	(473) 440-8390	Grenada	All
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Mrs. Dorine Gustave	NEMO	PS	dgustave@gosl.gov.lc	(758) 452-3802	Saint Lucia	All
Ms. Michelle Forbes	NEMO	PS	nemosvg@gmail.com	(784) 456-2975	St. Vincent and the Grenadines	All
Maj. Gen. (Ret'd) Rodney Smart	ODPM	PS	nwint@mns.gov.tt	(868) 640-1285	Trinidad and Tobago	All
Dr. Virginia Clerveaux	DDME	PS	Vclerveaux.ddme@gmail.com	(649) 946-2177	Turks and Caicos Islands	All

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		ation Manager				
Ms. Sharman James	CDEMA	IA: Chief Accountant	Sharman.james@cdema.org	(246) 434-4880	Barbados: CDEMA CU	All
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Mr. Oronde Lambert	CDEMA	ICT Manager	Oronde.lambert@cdema.org	(246) 434-4880	Barbados: CDEMA CU	Email
To be identified	Project Sponsor					All
To be identified	Project Manager					All

To be identified	Consultant					All
Suppliers and Vendors					National and Regional actors	Website
General Public					National, regional and international actors	Website

All project communication and its documentation will be maintained on the project website. The website will be a page attached to CDEMA's website. This will ensure that project information is readily available to all stakeholders with internet access whenever required.

4.9.5 COMMUNICATIONS MATRIX

The chart below identifies the communications requirements for the Standardized Procurement Procedures project. The matrix will be developed and updated by the Project's Assistant throughout the project. The Assistant will also monitor the matrix to ensure that information is sent in the frequency and medium requested by the audience. The Project Manager will have general oversight for the Communications Plan.

Chart 39: Communications Matrix (Source: author)

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable	Format
Kick Off Meeting	To introduce the project team and the project. Review objectives and management approach.	In person	Once	Project Sponsor, Project Team; Key Stakeholders	PM	Agenda, Meeting Report	Project Website, CDEMA's network and Email.
Project Team Meetings	Review status of the project with the team.	Face to face	Weekly	Project Team	PM	Agenda, Meeting Report, Project Schedule.	Soft copy in project's electronic folder on CDEMA's network.
Project Board Meetings	Review status of the project with key stakeholders.	Face to face, Virtual using Zoom or WebEx.	Bi-Monthly	Project Board	PM		Soft copy on project's website and on CDEMA's network.
Meetings with training consultant	Discuss, design and deliver the procurement training plan.	In person, virtual via Zoom or WebEx.	As needed	Project Staff	Consultant	Agenda, Meeting Report	Soft copy on CDEMA's network.

Project Status Reports	Share updates on each deliverable of the project including progress, costs and implementation issues.	Email	Monthly	Project Sponsor, Implementing Agency, Project Team, Stakeholders.	PM	Narrative and Financial progress reports; Project Schedule; Project Budget.	Soft copy on project's webpage and on CDEMA's network.
Project Closure	Present project's deliverables to key stakeholders.	In person, virtual using Zoom or WebEx.	Once	Project Sponsor; CDEMA CU: Stakeholders	PM	Agenda, Meeting Report	Soft copy archived on CDEMA's network and on project's webpage.
Post project closure review meeting	Collate and discuss lessons learnt.	In person	Once, at end of project.	Project team, sponsor and CDEMA CU.	PM	Agenda and meeting report.	Soft copy and on CDEMA's network.

The project will utilize CDEMA's existing standardized communications policies and templates for all project communication. Before communication can be shared externally, it will be reviewed by the Communications Specialist to ensure it meets or conforms to these already established standards.

4.9.6 MANAGE COMMUNICATIONS

This is the process of ensuring that communication activities are carried out in accordance with the distribution schedule and method. During this process, the project team will review the communications matrix, project schedule and stakeholder matrix to ensure that they distributing information in a timely matter, and in the medium that the stakeholder requested. Any request for change to the communications strategy and plan, must be submitted using the project's established change control process, with requests submitted to the project manager.

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4.10   PROCUREMENT PLAN

4.10.1   Procurement Plan Introduction

Procurement involves identifying and acquiring resources for use at a specific time. Project Procurement Management includes the processes necessary to acquire resources from outside of the project team. For this project, the primary resource to be acquired will be technical in the form of the subject matter expert consultant, and project manager. All other resources – human, machinery, space, etc. will be provided by the CDEMA CU as in-kind contributions.

Project Procurement Management processes includes those associated with planning, conducting and controlling procurements. The Project Management Institute (PMI, 2017) defines these processes as noted below:

Chart 40 Procurement Plan Summary (Source: author)

Processes	Activities	Results
Plan Procurement Management	1. The process of documenting project procurement decisions, specifying the approach, and identifying potential sellers (PMI, 2017).	Approved procurement management plan; procurement strategy.
Conduct procurements	2. The process of obtaining seller responses, selecting a seller, and awarding a contract (PMI, 2017).	Project communication
Control procurements	3. The process of managing procurement relationships, monitoring contract performance, making changes and corrections as appropriate, and closing out contracts (PMI, 2017).	Closed procurements, procurement documentation updates change requests.

The plan will be for the life of the project and will include details on items to be procured, type of contract to be used, risks associated, mitigation measures, estimation of costs, and the contract approval process.

4.10.2   Procurement Plan Approach

The Project Manager will draft the plan with inputs from the project team, Human Resources and Administration Manager, Chief Accountant and the

Procurement Officer. In addition, the existing procurement and contract management manual will be a key input into this process. The plan will be presented to the Project Board for review and approval.

4.10.3 Roles and Responsibilites

Chart 41: Procurement Roles and Responsibilities (Source: author)

ROLE	RESPONSIBILITIES
Project Sponsor	• Provides financial support to the organization for the implementation of the Project. • Reviews communication status reports shared by the Project Manager. • Approves or denies change requests.
Human Resources and Administration Manager	• Advertising contract. • Interviews.
Project Manager	• Preparing bid proposals. • Approving purchases. • Drafting the Procurement Management Plan. • Identifying risk and assignment appropriate risk management strategies. • Inspecting goods upon arrival to ensure they meet specifications. • Identifying any contractual issues.
Project Accountant	• Requesting purchase requisitions. • Collecting invoices. • Processing payments for goods and services procured. • Creating project's financial statements.
Consultant	• Develops procurement documents and templates to standardize procurement across projects.

	• Delivers procurement training to stakeholders.

4.10.4 Plan Procurement Management

In this process, the Project Manager will determine whether to acquire resources from outside of the project. In-kind resources have already been identified during the Resources Management processes, and these will be selected from other parts of the organization or from external sources. This process will be performed once in the project with inputs from the charter, business documents, project management plan, and organizational process assets. The tools used by the Project Manager and team during this process will be primarily expert judgement and meetings. The organization's existing procurement policies and procedures will be reviewed during this phase, and updates proposed to ensure that it meets best practice standards.

The procurement for this project is limited to the hiring of the Project Manager and Consultant. All the resources will be provided as in-kind contributions by the implementating agency. Once the Project Manager has been hired, he will be the only one authorized to procure items for the project. If additional resources are required which are not included in the procurement plan, make-or-buy decisions will be used to determine whether work or deliverables can best be accomplished by the current project team or should be purchased from external sources (PMI, 2017). For human resources acquisitions, the Project Manager will first consider the current knowledge, skills, attributes and other competencies within the CDEMA CU.

The Project Manager will develop a draft procurement strategy, which will build upon the previous one. Given that the hiring of the consultant will be considered a professional service, the buyer/services provider with no subcontracting will be utilized. Payment terms for the consultant will be linked directly to submission of deliverables. Bid documents will be created using the

Scope of Works for the consultant, and a Request for Proposal (RFP) will be shared.

4.10.5 Conduct Procurements

For the most part, procurement will be conducted on as needed basis by following the procurement plan. The already completed subsidiary project management plans will be used as inputs into this process. Subject matter experts from within the CDEMA CU, as well as inputs from the Caribbean Development Bank will be sought to provide expert judgement on proposal evaluation, whilst the consultant will be the technical subject matter expert.

When hiring the consultant advertising will be required given the scope of the works for the consultant, and the cost threshold. Through the Request for Proposals process, technical and financial bids will be required from each applicant. The applicant's expertise should match those outlined in the Scope of Works as a minimum. Consultant or consultant teams will be invited to submit their bids by a pre-determined deadline date. The technical bid will not only address the scope of works, but a work implementation plan, performance measurement framework and draft training plan will also be required. A budget has already been established for the Consultancy services, and this budget threshold cannot exceed USD $22,000 for the consultant position will be done on CDEMA's website, as well as with other national and regional newspaper agencies and CDEMA's established network of partners.

As the consultant will be hired through the CDEMA CU, the Human Resources and Administration Manager will be key to this process. She will have oversight for the hiring process to ensure that it meets the standards already established by the organization. The contract approval process will follow the internal process. Once the consultant candidate has been shortlisted and interviewed, they will move on to the next stage which would be reviewing the draft contract and sharing any inputs prior to finalizing. The Human Resources and

Administration Manager will draft the contract and share with the consultant. Once an agreement has been reached between the two parties, the content of the contract will be finalized and two copies shared with the Executive Director for his signature. Once both copies have been signed, they will then be shared with the consultant for signature; one document will be retained by the Project Manager, and the other by the Consultant.

4.10.6 Control Procurements

The key benefit of this process is that it ensures that both the seller's and budyer's performance meet the project's requirements according to the terms of the legal agreement (PMI, 2017). This process will be performed by the Project Manager throughout the project. The Project Manager through meetings with the consultant and other team members will ensure that the project's activities have the resources required and stays on schedule, cost and quality. The Project Manager will review the terms of the consultant's contract at key intervals to verify that items are being delivered within schedule and cost, and to release payments as outlined in the contract for the submission of deliverables.

Changes will follow the Change Control process as outlined for the project with the submission of a written request, which will be reviewed by the Project Manager and actioned accordingly.

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4.11   PROJECT MANAGEMENT PLAN

4.11.1 Project Management Plan Introduction

The Project Integration Management process will be used to identify, define, combine, unify and coordinate the various processes and project management activities within the Project Management Process Groups. This process includes making important choices about resource allocation; balancing competing demands; examining any alternatives; tailoring the processes to meet the project objectives, and; managing the interdependencies among the Project Management Knowledge Areas (PMI, 2017).

The Project Management Processes are outlined below:

Chart 42: Project Management Plan Summary (Source: author)

Processes	Activities	Results
Develop Project Charter	1. The process of developing a document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities (PMI, 2017).	Project Charter.
Develop Project Management Plan	2. The process of defining, preparing, and coordinating all plan components and consolidating them into an integrated project management plan (PMI, 2017).	Project Management Plan.
Direct and Manage Project Work	3. The process of leading and performing the work defined in the project management plan and implementing approved changes to achieve the project's objectives (PMI, 2017).	Deliverables; change requests; project management plan updates; project documents updates; organizational process assets updates.
Manage Project Knowledge	4. The process of using existing knowledge and creating new knowledge to achieve the project's objectives and contribute to organizational learning (PMI, 2017).	Project Management Plan updates.
Monitor and Control Project Work	5. The process of tracking, reviewing, and reporting overall progress to meet the performance objectives deifned in the project management plan (PMI, 2017).	Work Performance reports; change requests

Peform Integrated Change Control	6. The process of reviewing all change requests; approving changes and managing changes to deliverables, organizational process assets, project documents, and the project management plan; and communicating the decisions (PMI, 2017).	Approved change requests; project management plan updates; project documents updates.
Close Project or Phase	7. The process of finalizing all activities for the project, phase, or contract (PMI, 2017).	Project doucments updates; final deliverables; final reports; organizational process updates.

The Procurement Policies and Procedures Standardization Project for the CDEMA will result in the creation of updated standardized procurement policies and procedures for the agency incorporating best pract standards. Whilst there is currently a procurement manual available, this does not fully incorporate best practive standards or is standardized to account for the different procurement standards that the agency utilitizes. It is therefore expected that at the end of this project's implementation that the agency would retain its competitive advantage, and increase the number of projects it implements.

4.11.2 Project Management Plan Approach

The Project Manager has sole responsibility for ths process and will this plan inclusive of the subsidiary plans created to manage the project. The project team will consist of the project manager and shared administrative and accounting support from within the organization. The project management plan and subsidiary plans must be approved by the project sponsor. In addition, the sponsor will provide final decisions on funding for the project. Any changes to the project's plans must go through the official change process, which must be approved by the project manager and the project board.

The team members who will provide support to the project either through in-kind support or subject matter expert support will continue to report to their functional units within the organization through the duration of the project. The

project manager will input into the performance appraisal for each staff member based on their performance on the project.

4.11.3 Project Scope

The scope of the standardized procurement project is limited to the creation of the project management plan including the subsidiary plans. The plan will incorporate regional and international best practice procurements standards for the policies and procedures within CDEMA.

All project work will be performed internally with the project manager as lead. The scope of the project will also include some of the training components required for the training, which will be undertaken by a consultant.

4.11.4 Milestone List

The below chart gives the major milestones for this project. The milestones included are those related to the Project Management Plan and also the training component for the project. There are other milestones which are not included here but which are included in the project's WBS and schedule. Any changes to these milestones or dates will be communicated by the project manager.

Chart 43: Project's Major Milestones with completion dates (Source: author)

WBS Code	WBS Name	WBS Description of work	Date
1A	Policies and Procedures Standardization Project for CDEMA		
1.1.1	Analysis of Current State	Meetings with employees of the CDEMA Cu and review of existing procurement policies and procedures documents.	9/29/2019
1.1.2	Project Management Plan	Meetings with project team and other key stakeholder to create the subsidiary plans that make up the Project Management Plan.	10/12/2019
1.1.2.1	Create Scope Management Plan	Creation of plan where the project and product scope are defined, monitored and controlled.	10/7/2019
1.1.2.2	Create Cost Management Plan	Creation of the plan where the project's costs are determined, estimated, monitored and controlled. The costs for the project should not exceed USD $150,000.00.	10/7/2019
1.1.2.3	Create Schedule	Creation of schedule management plan where the project's timelines do	10/9/2019

	Management Plan	not exceed 6 months.	
1.1.2.4	Create Stakeholder Management Plan	Coordination with internal and external stakeholders are outlined in this plan. The frequency and mode of contact are also provided.	10/8/2019
1.1.2.5	Quality Management Plan	Includes the processes associated with the development, implementation and controlling procedures within the Quality Management plan.	10/9/2019
1.1.2.6	Resources Management Plan	The plan will include details on all resoures required for the project and the timely acquisition of these resources to ensure project success.	10/9/2019
1.1.2.7	Create Risk Management Plan	The plan outlines the process to plan, identify and mitigate risks in the project. The project team will identify risks and collate in the risk register which will be updated throughout the life of the project.	10/9/2019
1.1.2.8	Create Communications Plan	The plan will include the formal and informal flow of communication from the project to its stakeholders.	10/10/2019
1.1.2.9	Create Procurement Management Plan	The Project Manager will create the draft procurement management plan, which includes details on the external resources required for the project and their acquisition.	10/8/2019
1B	Training Plan	This will be the roadmap for the procurement training offered by the consultant.	Consultant
1.1.3	Approve draft Final Procurement Plan	The consultant will review the draft plan and provide inputs to enhance the document to meet best practice standards.	12/24/2019
1.2	Hire Subject Matter Expert		
1.2.1	Review Scope of Works for Consultant	Also known as the Terms of Reference, this document will outline the specific activities to be performed by the Consultant.	1/24/2020
1.2.2	Advertise for Subject Matter Expert	Advertisement is the public announcement, as required by law and or the organization, which invites technical and financial bids for the position. The position will be posted on CDEMA's website and in local and regional online papers and with partners.	2/28/2020
1.2.3	Receive Technical and Financial Bids	The CDEMA CU shall receive the bids(proposals) received and shortlist those which meets the requirements of the position.	3/20/2020
1.2.4	Select Consultants	Interviews will be conducted with those who have been shortlisted, results tabulated and the consultant who meets the technical and financial requirements with the highest score selected.	5/6/2020
1.2.4.2	Share draft contract for consultants review and input	The draft contract will be prepared by the Human Resources and Administration Manager with input from the Project Manager; shared with the winning consultant for their input.	5/15/2020
1.2.4.3	Hire consultant	The consultant is considered hired when both the consultant and organization sign off on the contract.	5/6/2020
1.3	Share draft final procurement plan for consultants input	The Project Manager will share the document for the consultant's input before finalization.	5/15/2020
1.4.3	Deliver training	The consultat prepares a training plan which includes the activities related to this deliverable, as well as the resources needed	6/17/2020
1.5.3	Submit Final report	The final report of the training is submitted by the consultant. The report includes the results of the evaluation of the training.	7/24/2020
1.5.4	Approval final report	The final report is approved by the Project Board.	7/31/2020

4.11.5   Change Management Requests

Change requests can be approved by the Project Manager, Project Sponsor or Project Board given the financial impact of the proposed change to the project. The Project Manager can approve requests for impacts which result in less than $10,000; The Project Sponsor can approve requests for impacts which result in between $10,000 to $30,000; whilst all requests which exceed $30,000 must be approved by the Project Board. The following steps below outline the change control process for the project.

1. Change Requests must be submitted to the Project Manager who will log them into the Change Management System.
2. The Project Manager will review the requests to ascertain its relevance and level of importance given the stage of the project.
3. If the Project Manager believes that there is some level of substance to the request, he will look for alternatives in the off chance that the request is approved.
4. The Project Manager will evaluate the impact of the request on the project's scope, budget and schedule.
5. Submit to the Project Board for review and decision-making if outside the PM's level for approval.
6. If approved, the Project's Sponsor will formally accept the change by signing off on the project change control document. (Appendix 8)
7. The Project Manager will update the project's documents and advise the project's stakeholders of the approved change and its impact on the project.

All change requests must be submitted using the established change control process to the Project Manager.

4.11.6 Sustainable Cost Management Plan

The Plan will be prepared by the Project Manager with input from the project's sponsor and CDEMA's Chief Accountant. The Project Manager will be

responsible for managing and reporting on the project's cost throughout the duration of the project. Support will be provided by an accountant, who will be provided as in-kind support to the project from the CDEMA CU. The accountant will update the project's expenditures using QuickBooks. The project's budget is set at USD $150,000.00.

The project's financial performance will be measured using the Earned Value Measurements for Cost and Schedule Performance Index. This will be monitored by the accountant and reports shared with the Project Manager on an as needed basis but at a minimum during the project's weekly status meetings. If either index falls below 1.0, the Project Manager must report this to the Project Board and provide a detailed mitigation plan to bring the project back within the cost parameters.

Financial reports must be provided by the project's accountant and approved by the Project Manager before disseminating to the Project Board at their progress meetings.

4.11.7 Schedule Baseline and Work Breakdown Structure

The Work Breakdown Schedule for the project is comprised of work packages, which should not exceed 6 months of implementation. These work packages were developed in consultation with the project's team members and the implementing agency based on input from subject matter experts and expert judgement from past similar projects. The WBS dictionary defines the work required for the projedct, and includes definitions on all activities.

The project's schedule was derived from the WBS and Project Charter with input from the project's team members during their weekly briefings. In addition, information from the within the CDEMA CU was also used in the creation of the project's schedule. The schedule was completed by the project manager and

shared with the project's sponsor and implementing agency for approval. The schedule will be maintained using MS Project Gantt Chart by the Project Manager and any proposed changes will follow the project's change control process. If the change is approved by the sponsor, then it will be implemented by the Project Manager who will update the project's schedule, document the change and share with the necessary stakeholders.

4.11.8   Stakeholder Management Plan

The stakeholders for the project have already been identified and these include the project's sponsor, implementing agency, CDEMA's Participating States, vendors and supplies and the general public. The plan will ensure that stakeholders are engaged throughout the project at specific milestones. The Project Manager will lead this process and will be responsible for the development of the Stakeholder Management Plan and any updates to the stakeholder matrix and categorization of stakeholders. Any changes to the stakeholder lists, or their interests or impact will be reviewed by the Project Manager and actioned accordingly. Stakeholders will be managed closely to ensure that their interests have not weaned from the initial analysis.

4.11.9   Quality Management Plan

The project team will ensure that quality is closely monitored for the project by following the already established quality process. Project deliverables will be inspected by the Project Manager and then by the Project Board for approval before forwarding on to the CDEMA's governance mechanism for final approval. To ensure quality is built into the project, the experience from CDEMA employees who participated in similar projects will be requested. In addition, the team will review procurement standards at the regional and international levels and implement those, which are feasible given the project's scope. The change control process will be utilized when controlling the project's quality.

4.11.10   Resources Management Plan

There are a limited internal and external resources required for this project. The Project Manager in conjunction with the Human Resources and Administration Manager have already identified the both the human and other resources needed for the successful implementation of the project. Other than the Project Manager, the only other human resource required from outside the organization will be the consultant who will deliver the procurement training. The other human resources for the project will be provided as in-kind support from the CDEMA CU. The project's process to acquire resources will follow the procurement procedures already established by the organization.

The Project Manager will have the lead responsibility for managing the project's resources ensuring that they are released or procured at the right time within the project's schedule.

4.11.11 Risk Management Plan

The management of risks will be continuous throughout the project – beginning with the pre-planning stage for the project where risks will be identified, analyzed and categorized. The Project Manager will lead this process with the project team, and identify mitigation actions for each risk based on their probability of occurrence. These risk responses will indicate whether the risk will be escalated, avoided, mitigated or accepted.

A risk breakdown schedule was created which categorized risks into four areas: technical; management; commercial and external. A risk register (Figure 20) was also created for the project. The register will be managed by the Project Manager and team.

Three top highly probable and high impact risks were identified for the project and these are: (1) delays in implementation as the result of a natural disaster impacting one or more of CDEMA's Participating States; (2) delays in implementation due to capacity gaps in the region; and (3) competing priorities.

4.11.12   Communications Management Plan

The Project Manager will take the lead for the communications plan, which will serve as the guide for communications throughout the project. The communications requirements are documented in the Communications Matrix below, which documents the types of communication for the project, the target audience and the format. The project's website will be used as the primary depository for the project's documents.

Communication Type	Objective of Communication	Medium	Frequency	Audience	Owner	Deliverable	
Kick Off Meeting	To introduce the project team and the project. Review objectives and management approach.	In person	Once	Project Sponsor, Project Team; Key Stakeholders.	PM	Agenda, Meeting Report.	
Project Team Meetings	Review status of the project with the team.	Face to face	Weekly	Project Team	PM	Agenda, Meeting Report, Project Schedule.	
Project Board Meetings	Review status of the project with key stakeholders.	Face to face, Virtual using Zoom or WebEx.	Bi-Monthly	Project Board	PM		
Meetings with training consultant	Discuss, design and deliver the procurement training plan.	In person, virtual via Zoom or WebEx.	As needed	Project Staff	Consultant	Agenda, Meeting Report.	
Project Status Reports	Share updates on each deliverable of the project including progress, costs and implementation issues.	Email	Monthly	Project Sponsor, Implementing Agency, Project Team, Stakeholders.	PM	Narrative and Financial progress reports; Project Schedule; Project Budget.	

Project Closure	Present project's deliverables to key stakeholders.	In person, virtual using Zoom or WebEx.	Once	Project Sponsor; CDEMA CU: Stakeholders.	PM	Agenda, Meeting Report.
Post project closure review meeting	Collate and discuss lessons learnt.	In person	Once, at end of project.	Project team, sponsor and CDEMA CU.	PM	Agenda and meeting report.

All project meetings will be considered formal and will result in a meeting report being completed by the administrative support personnel. The report will be reviewed by the Project Manager and approved as final before sharing with meeting participants for their records. All email communication will be from the project's email to ensure transparency and consistency in messaging, and at the end of the project will become the official communication records for the project.

4.11.13 Procurement Management Plan

The Project Manager will lead in the development of the plan, and through the identification of resources in the Resource Management Plan will detail what resources need to be acquire external to the CDEMA CU. The project team will provide insight into the plan, as well as expert knowledge from subject matter experts within the CDEMA CU. The human resources required for the project will be the project manager and the consultant. The consultant will be hired after the Project Manager. The procurement of the consultant will follow CDEMA's current process where the Scope of Works will be used to draft the Terms of Reference for the position and the development of the Request for Proposals.

The Project Manager will control procurements by monitoring the project's performance to ensure that it stays on scope, schedule and budget, and ensure that no other resources are required outside of those already identified as these can impact the successful delivery of the project. Any changes to the procurement plan will follow the change control process already identified for the project.

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5. CONCLUSIONS

1. The creation of the Project Management Plan for the Procurement Policies and Procedures Standardization Project for the Caribbean Disaster Emergency Management Agency was created using the Project Management Institute's integrated approach to project management. This plan was created with consultations and input from representatives from the implementing agency and through online research tools.

2. The first element of created in the planning phases for the project was the Project Charter. A template was used as a guide and the information included provided the rationale for the project. A link to the organization's needs was established and a budget, timeline and deliverables for the project were identified. Given that the organization implements several projects simultaneously throughout the year using financial resources from several donor partners, the project was created to ensure that there is one standardized process for all projects.

3. An analysis of the current state of the CDEMA CU was conducted. The methods used for this process was a survey, unstructured interviews and document analysis. The findings from the analysis verified the need for a standardized plan for procurement within the organization, as well as training for all staff on the procurement policy and procedures.

4. A scope management plan was created to ensure that the project was completed successfully. In this plan, the scope was defined and measurements of success were included. Information on the scope of the project was provided through document analysis and from subject matter experts within the CDEMA CU.

5. A sustainable cost management plan was created where the processes were outlined that the project manager will take to build sustainability into the project. Throughout the processes for this plan expert judgement will be utilized drawing from CDEMA's previous experience with similar projects in size and cost. In addition, subject matter expertise will be drawn from the Chief Account as input into the process. QuickBooks has been identified as the software to be utilized to

input and monitor expenditures. The budget for the project has been confirmed at USD $150,000.00 and the primary expenditure will be for human resources.

6. A schedule management plan was drafted and schedules will be created using Microsoft Porject 2013. The WBS will be utilized as an input into this process as it confirms the start and end dates for the project. The process flow will be as outlined by the Project Management Institution and will ensure that best practice standards are incorporated into the processes. The Project Team will closely together to sequence the activities and maintain schedule control through performance reviews. This will be done by comparing actual to anticipated time schedules.

7. Stakeholder management is vital to the success of any project as their impact can be positive or negative and if negative, detrimental to the project. Stakeholder planning will begin in the initial phase of the project where the project manager, sponsor and the CDEMA CU will identify key stakeholders for the project. An analysis will be conducted by the project team and stakeholders will be monitored throughout the process using various tools to ensure that their needs remain positive. Mitigation measures will be implemented wherever necessary to makesure that the project stays on scope, schedule and within cost.

8. A quality management approach was outlined, and the project manager will follow closely to ensure alignment with the CU's already established processes and control meausres. The project manager will lead in this activity, but final approval will be granted from the CU's governance mechanism of the Technical Advisory Committee.

9. A human resources plan ensures that the necessary resources are acquired from both inside and outside of the CDEMA CU, at the time required. Inputs into this process will be through organizational assets with input from the Human Resources and Administration Manager and Procurement Officer. Limited resources are required for the project, so, it is expected that the organization's processes for acquiring these resources will be utilized. The project will hire a Project Manager and a Consultant for the delivery of the procurement training. All

other support will be CDEMA CU's in-kind contribution through the provision of technical support from subject matter experts.

10. The Risk Mangement Plan was developed for the project using a template. In the plan, the first step will be the identification of risks, followed by the analysis of these risks by the project team. Risks will be assessed and probability of their likely impact of the project will be assigned to each risk. The project team identified the top three risks for the project and will therefore, suggest measures for control should these occur. Through weekly meetings the project team will discuss any potential risks and initiate the mitigation measure if required. The project manager leads this process and reports any high risks to the Project Board for their immediate decision making.

11. Communications is an important aspect of any organization, and even more, so when it comes to projects. Lack of proper, timely communication can result in stakeholders losing their interest in the project. The project will utilize different communication measures and tools to reach stakeholders. The organization's current website will be used as a medium for distribution of project information.

12. The Procurement Plan will be created by the Consultant who will include the resources already identified for the project, and make recommendations for improvement to ensure it follows best practice standards. CDEMA's existing procurement and contracts manual will serve as an input into the process.

13. Through the integrated project management approach, several individual plans were created outlining the processes that the CDEMA CU will follow when implementing the project and outlining the roles and responsibilities of the project team in each process.

6. RECOMMENDATIONS

The following recommendations will be shared with the CDEMA Coordinating Unit to ensure that best practice standards are included in the procurement policy, processes and procedures.

1. Adopt a standardized approach to managing procurement within the agency. This will ensure that the policies and proceudres associated with procurement are streamlined.

2. Review the project's charter as created and update as needed to ensure its alignment with the organization's needs and ensure it meets the sponsor's expectations.

3. Review the analysis of the organization's current state. Look for low-hanging fruits which can be quickly implemented and will resolve some of the issues from the findings.

4. Review all the management plans created to ensure that all information is still relevant, and make updates as needed to them throughout the project's implementation.

5. Ensure that the budget for the project is still available. Continuously monitor throughout the project's life cycle to ensure that deviations are limited and the project stays within the budget allocated.

6. Liaise with the Human Resources and Administration Manager to verify availability of resources identified at the time that they are required. Specifically for the schedule management plan, ensure there are no conflicts with personnel that could inhibit the delivery of the project's deliverables.

7. Continuously monitor and evaluate the expectations of the project's stakeholders to make sure that negative feedback which may derail the project is either eliminated or minimized.

8. Risks were identified at the start of the project, and should be monitored throughout. New risks can crop up at any time, so the Project Manager

must identify these as soon as possible and create risk management strategies.

9. Adhere to the communications plan.

10. A concerted effort should be made to ensure that all staff are aware of the policies and procedures as it relates to procurement.

11. Included in the onboarding activity for new staff should be an overview of the procurement process. Staff will direct responsilibity for procurement should receive additional training before they assume these tasks.

12. Continuous training should be provided as best practice standards are updated.

13. The standardized policy should also be communicated to key stakeholders including donors and development partners, and reporting requirements should follow the procedure already established by the CDEMA CU.

14. Increase the number of staff responsibility for procurement. Create a standalone procurement unit within the Finance Department, and make the Procurement Officer position one not with shared activities outside of the procurement prevue. This would ensure that the current staff member's tasks are solely dedicated to the procurement function.

15. Create an annual procurement plan which includes all the procurement activities within the CDEMA CU. Utilize the services of the consultant as needed ensuring that deliverables are tied to payments.

7. BIBLIOGRAPHY

American Society for Quality. (n.d.). What is the Plan-Do-Check-Act (PDCA) Cycle? Retrieved October 7, 2019, from https://asq.org/quality-resources/pdca-cycle.

Caribbean Disaster Emergency Management Agency. (n.d.). About Us. Retrieved from https://www.cdema.org/about-us

Caribbean Disaster Emergency Management Agency. (n.d.). CDM. Retrieved from https://www.cdema.org/cdm

Caribbean Disaster Emergency Management Agency. (n.d.). CDM Strategy. Retrieved from https://www.cdema.org/cdm#cdm-strategy

European Commission. (n.d.). Pillar Assessment. Retrieved November 25, 2018, from https://ec.europa.eu/europeaid/tags/pillar-assessments_en

Glasgow Caledonian University. (n.d.). Primary and secondary information. Retrieved December 2, 2018, from https://www.gcu.ac.uk/library/smile/searching/whatinformationisneeded/primaryandsecondaryinformation/

Glossary of Project Management Terms. (n.d.). Retrieved December 2, 2018, from https://www.pmgloss.com/about/

Jefferson Union High School District. (n.d.). PRIMARY, SECONDARY, AND TERTIARY SOURCES. Retrieved December 2, 2018, from https://www.juhsd.net/cms/lib010/CA01902464/Centricity/Domain/138/Sources.pdf

Information. (n.d.). In Merriam-Webster's online dictionary. Retrieved December 2, 2018, from https://www.merriam-webster.com/dictionary/information

McLeod, S. (2014). The Interview Method. Retrieved December 2, 2018, from https://www.simplypsychology.org/interviews.html

Method123. (n.d.). Project Management Life Cycle. Retrieved November 25, 2018, from http://www.method123.com/project-lifecycle.php

Naybour, P. (2016, May 24). The benefits of following a project management method. Retrieved November 25, 2018, from https://www.apm.org.uk/blog/the-benefits-of-following-a-project-management-method/

Price, P. C., Jhangiani, R. S., Chiang, I. A., Leighton, D. C., & Cuttler, C. (2017, August 21). Research Methods in Psychology. Retrieved December 2, 2018, from https://opentext.wsu.edu/carriecuttler/chapter/observational-research/

Project Management Docs. (n.d.). Free Project Management Templates. Retrieved from https://www.projectmanagementdocs.com/#axzz62TKABgJQ.

Project Management Institute. (2017). A Guide to the Project Management Body of Knowledge, (*PMBOK® Guide*) - Sixth Edition, Project Management Institute, Inc., 2017.

Smith, L. W. (2000). Stakeholder analysis: a pivotal practice of successful projects. Paper presented at Project Management Institute Annual Seminars & Symposium, Houston, TX. Newtown Square, PA: Project Management Institute.

U.S. Department of Health and Human Services. (n.d.). Risk Management Plan. Retrieved September 19, 2019, from https://www.phe.gov/about/amcg/contracts/Documents/risk-management.pdf.

University of Connecticut. (n.d.). Content Analysis. Retrieved December 2, 2018, from https://researchbasics.education.uconn.edu/content-analysis/

University of Newcastle Library. (2018, October 4). LibGuides: Research Methods: What are research methods? Retrieved December 2, 2018, from https://libguides.newcastle.edu.au/researchmethods

Virginia Polytechnic Institute and State University. (n.d.). Research Methods Guide: Survey Research. Retrieved August 7, 2019, from https://guides.lib.vt.edu/researchmethods/survey

West Virginia Office of Technology (n.d.) Project Management Process. Retrieved October 7, 2019, from http://www.technology.wv.gov/ProductsAndServices/pmo/Documents/EXECUTING_Procurement_Management_Process.doc

8. APPENDICES

Appendix 1: FGP Charter

PROJECT CHARTER	
Date	**Project Name:**
November 11, 2018	Project Management Plan for the Procurement policies and procedures standardization project for the Caribbean Disaster Emergency Management Agency (CDEMA).
Knowledge Areas / Processes	**Applicacion Area (Sector / Activity)**
Knowledge areas: Integration, Scope, Cost, Schedule, Quality, Human Resources, Communications, Risk, Procurement, and Stakeholders, **Process groups:** Initiate, Plan, Monitor and Control	Disaster Management in the Caribbean
Start date	**Finish date**
July 29, 2019	December, 2019
Project Objectives (general and specific)	

To create a Project Management Plan for the Caribbean Disaster Emergency Management Agency to standardize the Procurement Policies and Procedures to ensure alignment with internationally recognized standards.

Specific Objectives:

- To conduct an analysis of the existing procurement policies and procedures within the CDEMA CU to ascertain whether these meet best practice standards.
- To create the project management plan, which defines how the project will be executed, monitored and controlled.
- To develop a scope management plan to ensure that the project is completed successfully.
- To create a sustainable cost mangement plan to control the project's expenditure, so that it stays within budget.
- To develop a schedule management plan to ensure that work is completed as per agreed terms and conditions.
- To create a stakeholder management plan to ensure effective stakeholder engagement.
- To create a quality management plan, which ensures that the outputs for the project meet specifications.
- To create a human resources management plan so that all human resources are identified and procured in a timely manner.
- To create a risk management plan which identifies the specific risks related to the project and to create solutions to manage these risks.
- To estabish a communications mangement plan to ensure the timely and effective communication for the project to its stakeholders.
- To develop a procurement management plan to ensure the right resources are purchased for the project.

Project purpose or justification (merit and expected results)

The Caribbean Disaster Emergency Management Agency is a regional agency with a focus on Disaster Management. The Agency receives frinancial support through

contributions from its 18 Participating States, as well as through direct financial support from the implementation of projects. These projects range in value and also in their expected results, but the primary focus is the building of capacities within the Agency and its 18 Participating States which would allow them to prepare, mitigate and respond to the impact of disasters within the region.

The projects that are implemented by the Agency are those which receive support from development partners worldwide notably the European Union, The Governments of Canada, The United Kingdom, Australia, Japan and Israel just to name a few. In addition, the Agency also implements projects in coordination with other regional and international organisations, such as The Caribbean Development Bank, Inter American Development Bank and the World Bank, as well as many others. Each project comes with specific terms and conditions which must be followed by the Agency in achieving the results for the project. The procurement guidelines and strategy for projects differ and the Agency has had a difficult time managing, controlling and effectively reporting on procurements to sponsors. Although the Agency has been successful in the delivery of its projects, mid-term or final evaluation of projects outline the inefficiencies within the Agency's procurement policies and procedures.

This project is being implemented to standardize the Procurement Polices and Procedures within the Agency, to implement best practice solutions and recommendations, and clarify the Agency's Procurement policies and procedures to our stakeholders. Through the realization of these results, the Agency will position itself from solely doing activities which focused on purchasing, to fully encompassing the polices and procedures related to procurement.

Description of Product or Service to be generated by the Project – Project final deliverables

A Project Mangement Plan will be developed along with the necessary processes as outlined by the Project Management Institute and noted below:

1. Project Charter

2. Scope Management Plan

3. Cost Management Plan

4. Schedule Management Plan

5. Stakeholder Management Plan

6. Quality Management Plan

7. Human Resources Management Plan

8. Risk Management Plan

9. Communications Management Plan

10. Procurement Management Plan

11. Procurement Strategy

Assumptions
- It is assumed that the project will be completed within scope, schedule and cost.   - Project scope will remain the same and will not change after the project has been signed off on.   - Project staff will be hired on time.   - Project costs will stay as originally budgeted.   - Subject matter experts will be available to provide input into the project.   - Deliverables will be completed within schedule and cost, and quality standards met. It is assumed that funding will be made for the implementation of the project.   - Stakeholder expectations remain the same throughout the duration of the project.   - It is assumed that the Project Manager will fully understand the information contained in project document.   - It is assumed that the Agency will continue to support the project through the prosivions of information and human resources.   - Facilities will be available for project staff.
Constraints
Timeframe for the graduation project is very short.

- Personnel available to implement project – 1 person.
- Must work within limited timeframe for the creation of the project document.
- Schedule of subject matter experiences is quite irregular, and subject to change at short notice.
- Limited availability of subject matter experts within the Caribbean region.
- Stakeholder expectations change during the project.
- Deliverable will meet current best practices procurement standards
- Budget must not exceed USD $150,000.00

Preliminary risks

- If student does not submit assignment on time, then, there is a penalty assigned.
- If student does not submit assignment in the agreed structure, then, a lower or no grade is given.
- If student does not understand the assignment, then, incorrect information would be submitted which would affect the grade, and could impact the quality of the assignement.
- If support from the Agency is not given within a timely manner, then, this could delay the completion of the project managmeent plan.
- If student does not gain access to required software, this would result in the deliverables not completed as per UCI standards, which would result in a penalty being assigned.

Budget

Overall budget is USD $150,000.00 for the project, which include the costs associated with hiring a consultant, creation of a communications strategy for the project and training and education.

Milestones and dates

Milestone	Start date	End date
Selection of Topic	November 5, 2018	November 5, 2018
Approval from Agency for use of materials	November 5, 2018	November 6, 2018

Submission of Charter	November 5, 2018	November 11, 2018
Submission of WBS	November 5, 2018	November 11, 2018
Submission of Introduction Chapter	November 12, 2018	November 18, 2018
Submission of FGP Schedule	November 12, 2018	November 18, 2018
Submission of Theoretical Framework Chapter	November 19, 2018	November 25, 2018
Submission of Methodological Framework Chapter	November 26, 2018	December 2, 2018
Submission of Executive Summary	December 3, 2018	December 9, 2018
Submission of Annexes	December 3, 2018	December 9, 2018
Submission of Bibliography	December 3, 2018	December 9, 2018
Signed Charter	December 3, 2018	December 9, 2018
Tutoring process	July 29, 2019	October 20, 2019
Tutor Assignment	July 29, 2019	July 29, 2019
Adjustments to previous chapters if required	August 11, 2019	August 18, 2019
Development of Results	August 19, 2019	October 6, 2019
Development of Conclusions	October 7, 2019	October 13, 2019
Development of Recommendations	October 14, 2019	October 20, 2019
Tutor's Approval	October 21, 2019	October 21, 2019
Reading by Reviewers	October 22, 2019	November 11, 2019
Adjustments	November 12, 2019	December 9, 2019
Presentation to the Board of Examiners	December 10, 2019	December 16, 2019

Relevant historical information
The Caribbean Disaster Management Agency (CDEMA) is a CARICOM regional agency with responsbility for Disaster Management. The Agency has been in existence for the past 27 years and provides support to 18 Participating States within the Caribbean. The Agency receives 'income' from its Participating States in the form of contributions, and through Administrative Costs assigned to projects for the implementation of their actions. Currently, the Agency employs 19 persons who fall into the category of core staff or project staff. CDEMA is headquarterd in Barbados. The Agency has implemented a number of projects during its 27 years. With the increase in Disaster Management agencies in the region, the agency has seen an increase in competition for human and financial resources. The Agency underwent a change management review process approximately 5 years ago, as it sought to change its strategic direction to increase its competitive advantage. Through this process, the Agency reviewed and updated its organisation chart outlining the positions requried for it to deliver on its mandate. One of the positions created was that for an Administration and Procurement Officer. The individual assigned to this role is relatively new and is in the process of updating her qualitfications for this position. The Agency through a knowledge exchange agreement with the UK Government currently has on board a Procurement Officer who is working closely with the Administrative and Procurement Officer on creating standardized templates for procurement. Currently, there are not enough staff within the Agency to ensure that the procurement guidelines for each project are adequately planned for, conducted and controlled. In 2009, the Procurement Policies and Procedures Manual was developed by the Finance Unit of CDEMA. The purpose of this manual was to establish a uniform procurement system; enhance transparency and accountability in procurement; promote fiscal prudence in donor parter funds; create a system to evaluate vendors and suppliers; receive value for money and reduce the risk of litigation to the Agency. This manual

was never fully embraced by the employees and the information contained therein soon became redundant as new best practices in procurement changed overtime. In March, 2018, through support from the Caribbean Development Bank, the Agency developed its new procurement and contract maangement manual to facilitate a more streamlined and efficient use of their resources. The CDEMA system (employees and Participating States) were oriented to this manual at a meeting convened at the Caribbean Development Bank. The information contained in the manual is still relatively new, and has not been fully streamlined and standardized into current operations.

Stakeholders
Direct stakeholders: • Caribbean Disaster Emergency Management Agency Coordinating Unit   • National Disaster Offices   • Development Partners   • Vendors   • Suppliers   • Consultants   Indirect stakeholders: • CARICOM   • Other Regional Organisations   • Sector Partners   • CDEMA Participating States   • Media
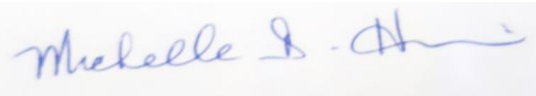
Project Manager: **Michelle D. Harris**	**Signature:**
Authorized by:	**Signature:**

Appendix 2: FGP WBS

WBS Number	Task Name
1	**Final Graduation Project**
1.1	**FGP Start**
1.1.1	Selection of Topic
1.1.2	Approval from Agency for use of materials
1.2	**Graduation Seminar**
1.2.1	**FGP Deliverables**
1.2.1.1	Submission of Charter
1.2.1.2	Submission of WBS
1.2.1.3	Submission of Introduction Chapter
1.2.1.4	Submission of FGP Schedule
1.2.1.5	Submission of Theoretical Framework
1.2.1.6	Submission of Methodological Framework
1.2.1.7	Submission of Executive Summary
1.2.1.8	**Submission of Annexes**
1.2.1.8.1	Bibliography
1.2.1.8.2	Schedule
1.2.1.9	Signed Charter
1.3	**Tutoring process**
1.3.1	**Tutor**
1.3.1.1	Tutor assignment
1.3.1.2	Communication
1.3.1.3	Adjustments of previous chapters (If needed)
1.3.1.4	Charter IV. Development (Results)
1.3.1.5	Chapter V. Conclusions
1.3.1.6	Chapter VI. Recommendations
1.3.1.7	Tutor approval

1.4	**Reading by reviewers**
1.4.1	**Reviewers assignment request**
1.4.1.1	Assignment of two reviewers
1.4.1.2	Communication
1.4.1.3	FGP submission to reviewers
1.4.2	**Reviewers work**
1.4.2.1	**Reviewer**
1.4.2.1.1	FGP reading
1.4.2.1.2	Reader 1 report
1.4.2.2	**Reviewer**
1.4.2.2.1	FGP reading
1.4.2.2.2	Reader 2 report
1.5	**Adjustments**
1.5.1	Report for reviewers
1.5.2	FGP update
1.5.3	Second review by reviewers
1.6	**Presentation to Board of Examiners**
1.6.1	Final review by board
1.6.2	FGP grade report
1.7	FGP End

FGP_WBS

1 Final Graduation Project

- **1.1** FGP Start
  - **1.1.1** Selection of Topic
  - **1.1.2** Approval from Agency for use of materials

- **1.2** Graduation Seminar
  - **1.2.1** FGP Deliverables
    - **1.2.1.1** Submission of Charter
    - **1.2.1.2** Submission of WBS
    - **1.2.1.3** Submission of Introduction Chapter
    - **1.2.1.4** Submission of FGP Schedule
    - **1.2.1.5** Submission of Theoretical Framework
    - **1.2.1.6** Submission of Methodological Framework
    - **1.2.1.7** Submission of Executive Summary
    - **1.2.1.8** Submission of Annexes
      - **1.2.1.8.1** Bibliography
      - **1.2.1.8.2** Schedule
    - **1.2.1.9** Signed Charter

- **1.3** Tutoring process
  - **1.3.1** Tutor
    - **1.3.1.1** Tutor assigment
    - **1.3.1.2** Communication
    - **1.3.1.3** Adjustments of previous chapters (If needed)
    - **1.3.1.4** Charter IV. Development (Results)
    - **1.3.1.5** Chapter V. Conclusions
    - **1.3.1.6** Chapter VI. Recommendations
    - **1.3.1.7** Tutor approval

- **1.4** Reading by reviewers
  - **1.4.1** Reviewers assigment request
    - **1.4.1.1** Assigment of two reviewers
    - **1.4.1.2** Communication
    - **1.4.1.3** FGP submission to reviewers
  - **1.4.2** Reviewers work
    - **1.4.2.1** Reviewer
      - **1.4.2.1.1** FGP reading
      - **1.4.2.1.2** Reader 1 report
    - **1.4.2.2** Reviewer
      - **1.4.2.2.1** FGP reading
      - **1.4.2.2.2** Reader 2 report

- **1.5** Adjustments
  - **1.5.1** Report for reviewers
  - **1.5.2** FGP update
  - **1.5.3** Second review by reviewers

- **1.6** Presentation to Board of Examiners
  - **1.6.1** Final review by board
  - **1.6.2** FGP grade report

- **1.7** FGP End

Appendix 3: FGP Schedule

	ⓘ	Outline Number	Task Name	Duration	Start	Finish	Predecessors
1		1	◢ Final Graduation Project	298 days?	Mon 11/5/18	Mon 12/16/19	
2	▦	1.1	Final Graduation Project	0 days?	Mon 11/5/18	Mon 11/5/18	
3		1.2	◢ FGP Start	0 days	Mon 11/5/18	Mon 11/5/18	
4	▦	1.2.1	Selection of Topic	0 days	Mon 11/5/18	Mon 11/5/18	
5	▦	1.2.2	Approval from Agency for use of materials	0 days	Mon 11/5/18	Mon 11/5/18	
6		1.3	◢ Graduation Seminar	32 days?	Mon 11/5/18	Mon 12/17/18	3
7		1.3.1	◢ FGP Deliverables	32 days?	Mon 11/5/18	Mon 12/17/18	
8	▦	1.3.1.1	FGP Deliverables	0 days?	Mon 11/5/18	Mon 11/5/18	
9	▦	1.3.1.2	Submission of Charter	6 days	Mon 11/5/18	Sun 11/11/18	
10	▦	1.3.1.3	Submission of WBS	6 days	Mon 11/5/18	Sun 11/11/18	
11	▦	1.3.1.4	Submission of Introduction Chapter	5 days	Mon 11/12/18	Sun 11/18/18	10
12	▦	1.3.1.5	Submission of FGP Schedule	5 days	Mon 11/12/18	Sun 11/18/18	9
13	▦	1.3.1.6	Submission of Theoretical Framework	5 days	Mon 11/19/18	Sun 11/25/18	
14	▦	1.3.1.7	Submission of Methodological Framework	6 days	Mon 11/26/18	Mon 12/3/18	
15	▦	1.3.1.8	Submission of Executive Summary	5 days	Mon 12/3/18	Sun 12/9/18	
16		1.3.1.9	◢ Submission of Annexes	5 days?	Mon 12/3/18	Sun 12/9/18	
17	▦	1.3.1.9.1	Submission of Annexes	0 days?	Mon 12/3/18	Mon 12/3/18	
18	▦	1.3.1.9.2	Submission of Annexes	0 days?	Sun 12/9/18	Sun 12/9/18	
19	▦	1.3.1.9.3	Bibliography	5 days	Mon 12/3/18	Sun 12/9/18	
23	▦	1.4.1	Tutoring process	61 days?	Sun 8/4/19	Mon 10/21/19	
24		1.4.2	◢ Tutor	66 days	Mon 7/29/19	Sun 10/20/19	
25	▦	1.4.2.1	Tutor	0 days?	Mon 7/29/19	Mon 7/29/19	
26		1.4.2.2	Tutor assigment	1 day	Mon 7/29/19	Mon 7/29/19	21
27	▦	1.4.2.3	Communication	7 days	Sun 8/4/19	Sat 8/10/19	
28		1.4.2.4	Adjustments of previous chapters (If needed)	8 days	Sun 8/11/19	Sun 8/18/19	26,27
29		1.4.2.5	Charter IV. Development (Result	36 days	Mon 8/19/19	Sun 10/6/19	28
30		1.4.2.6	Chapter V. Conclusions	6 days	Mon 10/7/19	Sun 10/13/19	29
31		1.4.2.7	Chapter VI. Recommendations	6 days	Mon 10/14/19	Sun 10/20/19	30
32	▦	1.4.2.8	Tutor approval	1 day	Mon 10/21/19	Mon 10/21/19	
33		1.5	◢ Reading by reviewers	16 days	Tue 10/22/19	Mon 11/11/19	
34		1.5.1	◢ Reviewers assigment request	5 days	Tue 10/22/19	Sun 10/27/19	
35	▦	1.5.1.1	Assigment of two reviewers	3 days	Tue 10/22/19	Thu 10/24/19	32
36		1.5.1.2	Communication	2 days	Fri 10/25/19	Sun 10/27/19	35
37		1.5.1.3	FGP submission to reviewers	1 day	Mon 10/28/19	Mon 10/28/19	36
38		1.5.2	◢ Reviewers work	10 days	Tue 10/29/19	Mon 11/11/19	
39		1.5.2.1	◢ Reviewer	10 days	Tue 10/29/19	Mon 11/11/19	
40		1.5.2.1.1	FGP reading	9 days	Tue 10/29/19	Fri 11/8/19	37
41		1.5.2.1.2	Reader 1 report	1 day	Mon 11/11/19	Mon 11/11/19	40
42		1.5.2.2	◢ Reviewer	10 days	Tue 10/29/19	Mon 11/11/19	
43		1.5.2.2.1	FGP reading	9 days	Tue 10/29/19	Fri 11/8/19	37
44		1.5.2.2.2	Reader 2 report	1 day	Mon 11/11/19	Mon 11/11/19	43
45		1.6	◢ Adjustments	20 days	Tue 11/12/19	Mon 12/9/19	
46		1.6.1	Report for reviewers	9 days	Tue 11/12/19	Fri 11/22/19	44
47		1.6.2	FGP update	1 day	Mon 11/25/19	Mon 11/25/19	46
48		1.6.3	Second review by reviewers	10 days	Tue 11/26/19	Mon 12/9/19	46,47
49		1.7	◢ Presentation to Board of Examiners	5 days	Tue 12/10/19	Mon 12/16/19	
50		1.7.1	Final review by board	2 days	Tue 12/10/19	Wed 12/11/19	48
51		1.7.2	FGP grade report	3 days	Thu 12/12/19	Mon 12/16/19	50
52		1.8	FGP End	0 days	Mon 12/16/19	Mon 12/16/19	51

Project: FGP_Generic_Schedule
Date: Sun 11/18/18

Task	▬▬▬	Inactive Task	▭	Start-only	▮
Split	··············	Inactive Milestone	◇	Finish-only	▮
Milestone	◆	Inactive Summary	▽	Deadline	⬇
Summary	▬▬▬	Manual Task	▬▬▬	Critical	▬▬▬
Project Summary	▭▭	Duration-only	▬▬▬	Critical Split	··············
External Tasks	▬▬▬	Manual Summary Rollup	▬▬▬	Progress	▬▬▬
External Milestone	◆	Manual Summary	▬▬▬		

Appendix 4: Outline Project Management Guidelines for the CDERA CU

<u>**Outline Project Management Guidelines for the CDERA CU**</u>

Background:

The Project Management Guidelines is intended to provide detailed guidance to members of staff of the CDERA CU who are involved in the implementation of projects and programmes. The Guidelines are developed in recognition of the need for the CDERA CU to articulate a standardized approach to project management within the Agency and to provide a reference manual to new and existing staff.

The Guidelines are divided into three main sections. Section I covers the Project Design and Development, Section II outlines procedure for Project implementation and Section III Project Close Out.

1. **Introduction/Rationale**

2. **Glossary of Terms**

3. **Section I: Project Development/Design**

    a. Project proposal format - Including
        i. Logical Framework Analysis
        ii. Project Management Mechanisms

    b. Developing project budgets
        i. Budget Formats
        ii. Cost guides
        iii. In-kind contributions

    c. Project Design Checklist

4. **Section II: Project Implementation**

   a. Project records management (hard copy and digital)

   b. Work Implementation Planning

   c. Technical Considerations - including
      i. Linkages with other initiatives
      ii. Commenting on Technical Documents

   d. Financial Considerations in Project Implementation
      i. Bank Accounts
      ii. Defining Project Budget Heads
      iii. Quickbooks
      iv. Contracting Goods and Services
         1. Contracting Services
            a. Developing Consultancy Notices
            b. Consultancy Advertising
            c. Short listing and Evaluation Procedures
            d. Contracts
            e. Payments under contracts
               i. Approval of Payments
               ii. Contract Management Database
      v. In-Kind Contributions
         1. Timesheets

   e. Information and Visibility
      i. Press Releases
      ii. CDERA CU Website
      iii. Other Media interfacing

   f. Project Monitoring and Evaluation

i. Performance Monitoring Frameworks

g. Project Reporting

    i. Progress Reports

        1. CDERA CU

        2. Development partner formats

    ii. Financial Reports

        1. CDERA CU

        2. Development partner formats

h. Project Implementation Checklist

5. Section III: Project Close Out

a. Final Progress and Financial Reports

    i. CDERA CU

    ii. Development partner formats

b. Records Management

c. Dissemination of results

d. Financial Close Out

    i. Hand over of assets

    ii. Audit

    iii. Closure of Bank Account

e. Project Close out checklist

6. References

APPENDIX 5: Survey Questions

Survey on Procurement practices within the CDEMA Coordinating Unit

The responses received from this survey will be used to inform the development of my Final Graduation Project with the University of International Cooperation (UCI), Costa Rica. My project will seek to create a standardized procurement management plan for the CDEMA Coordinating Unit. Approval for use of information specific to the CU was granted by the Executive Director and his Management Team.

I wish to thank you in advance for assisting me with my project, and I look forward to receiving your responses.

* Required

1. How long have you worked for the organization? *
   a) Less than 1 year
   b) 1 – 3 years
   c) 4 – 7 years
   d) 8 – 12 years
   e) 13+ years

2. Does the CDEMA CU have a standardized procurement policy, strategy and plan?
   a) Yes
   b) No
   c) Unsure

3. Is there an updated procurement process flow?

a) Yes

b) No

c) Unsure

4. Are you familiar with the procurement policies within the CDEMA CU?

a) Yes

b) No

c) Unsure

5. Is there a standalone Procurement Department within the CDEMA CU?

a) Yes

b) No

c) Unsure

6. What is the number of staff with assigned procurement responsibilities within the CDEMA CU?

a) 1

b) 2 – 4

c) 5 – 7

d) 8

7. Do you believe that the Procurement Unit/Department is adequately staffed to handle the Agency's procurement needs?

a) Yes

b) No

c) Unsure

8. Since you have been with the Agency, have you received any procurement training?

a) Yes

b) No

9. Our Participating States and partners are fully aware of the Procurement Strategy and Policy.
   a) Strongly Agree
   b) Agree
   c) Neutral
   d) Disagree
   e) Strongly Disagree

10. The Procurement Strategy and Policy are made readily available to the public when requested/online?
   a) Strongly Agree
   b) Agree
   c) Neutral
   d) Disagree
   e) Strongly Disagree

11. Do you believe that the Agency follows best practice standards in procurement?
   a) Yes
   b) No
   c) Unsure

12. Please share a recommendation for improving the Procurement process within the Agency.

   _____

   _____

   _____

APPENDIX 6. Results of Procurement Survey

1. How long have you worked for the organization?	2. Does the CDEMA CU have a standardized procurement policy, strategy and plan?	3. Is there an updated procurement process flow?	4. Are you familiar with the procurement policies within the CDEMA CU?	5. Is there a standalone Procurement Department within the CDEMA CU?	6. What is the number of staff with assigned procurement responsibilities within the CDEMA CU?	7. Do you believe that the Procurement Unit/Department is adequately staffed to handle the Agency's procurement needs?	8. Since you have been with the Agency, have you received any procurement training?	9. Our Participating States and partners are fully aware of the Procurement Strategy and Policy?	10. The Procurement Strategy and Policy are made readily available to the public when requested/online	11. Do you believe that the Agency follows best practice standards in procurement?	12. Please share a recommendation for improving the Procurement process within the Agency
8 - 12 years	Yes	Yes	No	No	1	No	Yes	Disagree	Neutral	Yes	A "solid" implementation plan with additional staffing.
8 - 12 years	Yes	No	Yes	No	2 - 4	No	Yes	Neutral	Agree	No	Internal audit function is required to ensure that procedures are being followed.
8 - 12 years	Yes	Unsure	No	No	1	No	Yes	Agree	Neutral	Unsure	
4 - 7 years	Unsure	Unsure	No	No	2 - 4	No	No	Disagree	Neutral	No	
1 - 3 years	Unsure	Unsure	Unsure	No	1	No	Yes	Disagree	Disagree	Unsure	If there's a procurement plan, policy or strategy for the Agency, then, it should be shared with staff and training in the application facilitated.
4 - 7 years	Yes	Yes	Yes	No	2 - 4	No	Yes	Neutral	Neutral	No	Further training for staff and stakeholders.
13+ years	Yes	Yes	Yes	No	1	No	Yes	Disagree	Agree	No	The Procurement department needs to be

											properly staffed as it is currently a shared role. Although the Agency has a procurement policy, it is very new, therefore, staff are not fully on board with the new procedures and some still operate from what was practiced and not what the new policy entails that they do. Training on the new policy needs to be undertaken with all staff. A procurement plan has not yet been developed for the entire Agency only specific projects. The development of such a plan will also help the Agency with its procurement process as they will help to identify timeframes and type of procurement to be used at an early stage.
8 - 12 years	Yes	Yes	Yes	Yes	1	No	Yes	Neutral	Disagree	No	More staffing for the procurement department.
4 - 7 years	Yes	Yes	No	No	1	No	No	Disagree	Neutral	Yes	Training for staff in the procurement policy.
8 - 12 years	Yes	Yes	Yes	No	2 - 4	Yes	Yes	Agree	Neutral	Unsure	Do an internal training for all staff to become familiar with the procurement process.

Appendix 7: Draft Scope of Works for Training Consultant

The Consultant undertakes to perform the Services with the highest standards of professional and ethical competence and integrity.

The following activities will be undertaken by the Consultant:

1. Participate in an inception meeting with the CDEMA CU to agree on the roll-out of the consultancy. This will also facilitate a discussion on the Terms of Reference, provide solutions for potential challenges and revise and finalise the methodology and timelines for conducting the consultancy.

2. Review relevant literature aimed at providing an understanding of the context for the consultancy and the review, revisions and adaptation processes to date. Documents to be reviewed will include inter alia:

   a. Existing Procurement Plans, Strategies and Procedures within the CDEMA CU.

   b. Existing procurement plans, strategies and procedures at the regional and international level.

   c. Regional and International Procurement Standards.

   d. Other documents, plans and systems as deemed necessary

3. Prepare an Inception Report, post inception meeting, which details the methodology/approaches and timelines associated with the Consultancy.

4. Participate in regular process meetings with the CDEMA CU, the frequency of which will be agreed upon at the inception meeting.

5. Consult with key stakeholders, including Participating States and the CU, to inform the development of the standardized procurement strategy, policy and plan documents.

6. Prepare reports of these consultations.

7. Develop a first draft of the standardized procurement documents, which should be informed by the feedback received during consultations.

8. Present the first draft at the 2nd Project Board Meeting.

9. Develop the second draft of the documents, which will incorporate comments received from the first meeting.

10. Facilitate a Regional Consultation with CDEMA's Participating States and other key stakeholders to present the final draft of the document.

11. Finalise the documents and training plan.

12. Implement the training.

13. Prepare a draft final report of the Consultancy for review to the Project Board.

14. Submit the Final Report of the consultancy for final review and approval.

Appendix 8: Standard Change Request

Source: Project Management Docs

Change Request	
Project:	**Date:**
Change Requestor:	**Change No:**

Change Category (Check all that apply):
 	
  - Schedule   - Cost   - Scope   -
Communications
 	
  - Requirements/Deliverables - Quality - Resources	

Does this Change Affect (Check all that apply): **-** Corrective Action - Preventative Action - Updates - Other	
Describe the Change Being Requested:	
Describe the Reason for the Change:	
Describe all Alternatives Considered:	
Describe any Technical Changes Required to Implement this Change:	
Describe Risks to be Considered for this Change:	
Estimate Resources and Costs Needed to Implement this Change:	

Describe the Implications to Quality:		
Disposition: **-** Approve - Reject - Defer		
Justification of Approval, Rejection or Deferral:		
Change Board Approval:		
Name	**Signature**	**Date**

Appendix 9: Activity List and Description

Outline Number	Activity	Description
A	**Analyze current status of procurement within the CDEMA CU**	An analysis was conducted of the status of procurement within the CDEMA Coordinating. Information was collected through surveys, informal interviews and document review.
B	**Create Scope Management Plan**	The Scope Management Plan was drafted for the Project Sponsor and Implementing Agency's review and approval. This included an introduction to the plan and the general approach that would be taken for implementation. Materials were reviewed to ensure best practice standards were incorporated. Roles and responsibilities for each stakeholder were identified for this process. Criteria was developed to identify the project's success, and score control and change processes were highlighted. The WBS for the project was also included. Consultations were undertaken with the project team and organization subject matter experts.
C	**Create Cost Management Plan**	The Cost Management Plan was drafted for the Project Sponsor and Implementing Agency's review and approval. This included an introduction to the plan and the general approach that would be taken for implementation. The Plan included details on the how costs will be measured and the reporting requirements. In addition, roles and responsibilities were outlined for each person with cost management tasks and activities assigned to them. For the most part the project will utilize already existing process currently being utilized within the CDEMA Coordinating Unit, as these currently meet best practice standards. Consultations were undertaken with the project team and the Chief Accountant and Procurement Officer within the CDEMA CU.
D	**Create Schedule Management Plan**	The Schedule Management Plan was drafted for the Project Sponsor and Implementing Agency's review and approval. This included an introduction to the plan and the general approach that would be taken for implementation. For this process, roles

E	**Create Stakeholder Management Plan**	and responsibilities were confirmed and a control and change control process were included. Consultations were undertaken with the Human Resources and Administration Manager to ensure activities were planned to ensure no duplication or conflicts within the organization. The Stakeholder Management Plan was drafted for the Project Sponsor and Implementing Agency's review and approval. This included an introduction to the plan and the general approach that would be taken for implementation. For this process, as well as roles and responsibilities were confirmed and a control and change control process were included. Stakeholders were identified and analyzed, processes outlined detailing how stakeholders will be managed, and their expectations controlled. Consultations were undertaken with the Management Team and Procurement Officer for mapping of stakeholders.
F	**Quality Management Plan**	The Quality Management Plan was developed for the Project Sponsor and Implementing Agency's review and approval. The plan included an introduction and general approach on how quality standards will be incorporated into the project using CDEMA's already existing quality assurance processes.
G	**Create Human Resources Plan**	The Human Resources Plan was developed for the Project Sponsor and Implementing Agency's review and approval. Given the scope for this project, the plan is limited to the roles and responsibilities of the project team and consultant. The plan included an introduction and general approach.
H	**Create Risk Management Plan**	The Risk Management Plan was developed for the Project Sponsor and Implementing Agency's review and approval.
I	**Create Communications Plan**	The Communication Plan was developed for the Project Sponsor and Implementing Agency's review and approval. The Communications Specialist provided Subject Matter Expert inputs. The plan outlined the approach that the project will incorporate to ensure that communication is effective and efficient, and meets stakeholder needs.
J	**Create Procurement**	The Procurement Management Plan was developed for the Project Sponsor and Implementing Agency's review and approval.

	Management Plan	
K	**Consultant: Prepare Procurement Training materials**	The Consultant will review the procurement plan created previously for the project and input best standards within. In addition, the training materials for the training will be drafted and shared with the Implementing Agency prior to the delivery of the training.
L	**Consultant: Deliver Procurement Training**	The Consultant will deliver the Procurement Training.
M	**Consultant: Delivers Final Report on Consultancy**	The Consultant will prepare and deliver the final report on the consultancy.
N	**Final Project Deliverables are Approved**	All project deliverables will be reviewed and approved by the Project Board.
O	**End of Project**	Close out of project including the final narrative and financial reports for the project. Official sign off by the Implementing Agency and Project Sponsor.

Appendix 10: Guide to Risk Management Key Terms (Source: Project Management Docs.)

Risk: The risk stated in a complete sentence that states the cause of the risk, the risk, and the effect that the risk causes to the project.

Risk Category: Categorization of risks by area of project affected, source of risk or other useful category.

Probability: The likelihood that a risk or opportunity will occur (on a scale from 0 to 10 with 10 being the highest).

Impact: The impact of the risk on the project if the risk occurs (scale from 0 to 10 with 10 being the highest).

Risk Score: Determined by multiplying probability and impact (scale from 0 to 100).

Risk Ranking: A priority list that is determined by the relative ranking of the risks (by their scores) within the project with the number one being the highest risk score.

Risk Response: The action that is to be taken, if this risk occurs.

Trigger: Something which indicates that a risk is about to occur or has already occurred.

Risk Owner: The person who the project manager assigns to watch for triggers, and manage the risk response, if the risk occurs.

Appendix 11: Budget for Standardized Procurement Training

BUDGET FOR THE STANDARDIZED PROCUREMENT TRAINING

Country: **Barbados**
Venue   **Hilton Hotel Barbados**
Agency   **CDEMA Coordinating Unit**

Item	Calculation			Amount
1. Venue				
Rental of Conference Room	2,000.00	* 3days		6,000.00
Sub total (Item 1)				*6,000.00*
2. A/V Equipment				
Equipment - Microphones, Audio Recording	5,751.04	* 3days	* 1participants	17,253.12
Sub total (Item 2)				*17,253.12*
3. *Procurement Training*				
Airline Ticket	1,000.00	* 1days	* 17participants	17,000.00
Hotel Accommodation	338.00	* 2days	* 17participants	11,492.00
Per Diem	@ 475	* 2days	* 17participants	16,150.00
Sub total (Item 3)				*44,642.00*
4. Meals				

Morning & Evening Breaks		@ 33.00	* 3days	* 35participants	3,465.00
Lunch		@ 50.00	* 3days	* 35participants	5,250.00
Sub total (Item 4)					**8,715.00**
5. Other costs					
Stationery (general)		@ 450	* 2days		900.00
Stationery (printing and binding of procurement manual)		@ 75	* 1days	* 35participants	2,625.00
Flags		@ 8	/person	* 18participants	144.00
Sub total (Item 5)					**3,669.00**
6. Contingency					
7% of total of above					**5,619.00**
Grand total (Item 1 to 6)					**85,898.12**

Approved by: _____

Date: _____

Appendix 12 Network Diagram of Standardized Procurement Policies and Procedures

NETWORK DIAGRAM

Standardized Procurement Project for t
Start: Sun 12/1/19   ID: 1
Finish: Fri 7/31/20   Dur: 176 days
Comp: 0%

Procurement Management Plan
Start: Fri 12/6/19   ID: 2
Finish: Tue 12/24/1   Dur: 13 days?
Comp: 0%

Hire Subject Matter Expert
Start: Thu 1/2/20   ID: 6
Finish: Thu 2/20/20   Dur: 36 days?
Comp: 0%

Review Procurement Management Plan
Start: Fri 12/6/19   ID: 3
Finish: Fri 12/6/19   Dur: 1 day?
Res:

Make Recommendations for the Enhancement of the Plan
Milestone Date: Fri 12/13/19
ID: 4

Approve draft Final Procurement Plan
Start: Mon 12/16/1   ID: 5
Finish: Tue 12/24/1   Dur: 7 days
Res:

Review Scope of Works for Consultant
Start: Thu 1/2/20   ID: 7
Finish: Fri 1/24/20   Dur: 17 days
Comp: 0%

Advertise for Subject Matter Expert
Start: Fri 1/24/20   ID: 10
Finish: Fri 2/28/20   Dur: 26 days
Comp: 0%

Post on CDEMA CU's website and share externally
Milestone Date: Fri 1/24/20
ID: 11

Receive Technical and Financial Bids
Start: Mon 3/2/20   ID: 12
Finish: Fri 3/20/20   Dur: 15 days
Comp: 0%

Short list consultants for Interview
Milestone Date: Mon 3/2/20
ID: 13

Interview Consutants
Milestone Date: Mon 3/16/20
ID: 14

Select Consultants
Start: Mon 3/23/20   ID: 15
Finish: Wed 5/6/20   Dur: 33 days?
Comp: 0%

negotiate terms and conditions
Start: Mon 3/23/20   ID: 16
Finish: Fri 3/27/20   Dur: 5 days?
Res:

Share draft contract for consultants review and input
Milestone Date: Mon 4/27/20
ID: 17

Hire consultant
Milestone Date: Mon 5/4/20
ID: 18

Share draft final procurement plan for
Start: Mon 5/11/20   ID: 19
Finish: Fri 5/15/20   Dur: 5 days?
Comp: 0%

Training Plan
Start: Mon 5/18/20   ID: 21
Finish: Wed 6/17/2   Dur: 23 days?
Comp: 0%

Final consultant's report
Start: Mon 7/29/19   ID: 28
Finish: Mon 10/21/'   Dur: 66 days
Comp: 0%

Appendix 13 Philologist's Dictum and Supporting Documents

Maria Alexandra Mora Ramirez
Cra 13. #44-34
Apartment 805
COLOMBIA

Phone number: +57 311 835 6798

25 November 2019

Mr. Ramiro Fonseca Macrini, MBA
Dean GPSM
UNIVERSITY FOR INTERNATIONAL COOPERATION

Dear Mr. Fonseca Macrini:

Re: Philologist Approval for Final Graduation Project Review and Correction

I, Maria Alexandra Mora Ramirez with identity card 52.820.618, with an academic post graduate Master's Degree in Teaching English as a Foreign Language from the Universidad Internacional Iberoamericana, graduated in 2017, and an Undergraduate Degree in Philology and English, extended by La Universidad Nacional De Colombia, graduated in 2003, declare that I, as a professional in the field of Philology, have reviewed, and corrected Michelle Donnella Harris' Final Graduation Project (FGP) entitled Development of A Project Management Plan for the Procurement Policies and Procedures Standardization Project for the Caribbean Disaster Emergency Management Agency dated October 2019.

The FGP document meets the proper philological quality (correct writing, spelling and grammar) as stipulated by the University and is corresponding to a master's level work. It is a requirement of the University that the final version of the FGP document for a Master in Project Management degree to be awarded by the University for International Cooperation (UCI) is reviewed and corrected by a professional in the field of philology.

Yours sincerely,

Maria Alexandra Mora Ramirez

Bachelor, philologist and proof reader of English style National University of Colombia

Master in Teaching English as a Foreign Language Universidad Internacional Iberoamericana

REPUBLICA DE COLOMBIA
IDENTIFICACION PERSONAL
CEDULA DE CIUDADANIA

NUMERO 52.820.618
MORA RAMIREZ
APELLIDOS

MARIA ALEXANDRA
NOMBRES

FIRMA

FECHA DE NACIMIENTO 07-MAY-1981
VILLAVICENCIO
(META)
LUGAR DE NACIMIENTO

1.60   O+   F
ESTATURA   G.S. RH   SEXO

04-AGO-2000 BOGOTA D.C.
FECHA Y LUGAR DE EXPEDICION

REGISTRADOR NACIONAL
CARLOS ARIEL SÁNCHEZ TORRES

INDICE DERECHO

A-1500150-00687878-F-0052820618-20150417   0043923514A 1   1263356028

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   en   el

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                                                 Saúl G. Rivera Marín
                                                 Secretario de Estado

---

LA UNIVERSIDAD INTERNACIONAL IBEROAMERICANA

María Alexandra Mora Ramírez

MAESTRÍA EN FORMACIÓN DE PROFESORES DE INGLÉS COMO LENGUA EXTRANJERA

MASTER IN TEACHING ENGLISH AS A FOREIGN LANGUAGE

REPÚBLICA DE COLOMBIA
MINISTERIO DE RELACIONES EXTERIORES

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(Acting in the capacity of:
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(At: - Á:)

El: 10/5/2017 17:31:37 p. m.
(On: - Le:)

Por: **APOSTILLA Y LEGALIZACIÓN**
(By: The Ministry of Foreign Affairs of Colombia - Par: Ministère des Affaires Étrangères de la Colombie)

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MARIA ALEXANDRA MORA RAMIREZ
LICENCIADA EN FILOLOGÍA E INGLÉS
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PERFIL PROFESIONAL

Licenciada en Filología e Inglés, egresada de la Universidad Nacional de Colombia, Bogotá. Maestría en la Enseñanza del Inglés como Lengua Extranjera. Con 8 años de experiencia en docencia formal e informal, universitaria, clases corporativas, traducciones español-inglés, inglés-español, corrección de estilo e investigación. Certificación internacional APTIS, banda C. Manejo de inglés de negocios y preparación para exámenes internacionales de proficiencia en inglés (TOEFL/IELTS). Manejo de plataformas virtuales de educación como Moodle y Blackboard.

EXPERIENCIA LABORAL

UNIVERSIDAD CENTRAL
Docente de inglés, Mayo de 2019 a la fecha.
Funciones desempeñadas: clases de inglés general para los cursos de extensión.

UNIVERSIDAD JAVERIANA
Docente de inglés, Julio de 2017 y Febrero de 2018 a la fecha.
Funciones desempeñadas: clases de inglés para el curso de servicios de la universidad.

UNIVERSIDAD ECCI
Docente de inglés cátedra para la carrera de Lenguas Modernas, Agosto de 2016 a la fecha.
Funciones desempeñadas: clases de inglés para los estudiantes de la carrera de Lenguas Modernas.

UNIVERSIDAD CATÓLICA
Docente de planta, Enero - Junio 2016
Docente de cátedra, curso vacacional – Noviembre 2015
Funciones desempeñadas: clases de inglés para nivel A1 y A2.

UNIVERSIDAD NACIONAL DE COLOMBIA
Docente de cátedra para todos los niveles de todas las carreras de la universidad – Junio de 2013 a Mayo 2017.
Funciones desempeñadas: preparación y manejo de clases de inglés en niveles básico, intermedio, avanzado; tareas de administración y gestión académica como preparar, aplicar y calificar exámenes, proporcionar retroalimentación, conducir sesiones de laboratorio y dirigir trabajos de grupo.

MÚSCULO CREATIVO (OUTSOURCING MCCANN ERICKSON)
Correctora de estilo en inglés y español (freelance) – Septiembre de 2012 a enero de 2017.
Funciones desempeñadas: revisión y corrección ortográfica, sintáctica y gramatical de textos publicitarios en inglés para la cuenta del Gobierno Nacional de Colombia, ProColombia, y apoyo en español para cuentas como LAN, Terpel, Ripley, Jerónimo Martins, Bavaria, Grupo Aval, entre otras.

UNIVERSIDAD PILOTO DE COLOMBIA
Docente de Inglés de negocios - Febrero de 2011 a noviembre de 2011.
Funciones desempeñadas: preparación y manejo de clases de inglés en niveles básico, intermedio, avanzado; tareas de administración y gestión académica como preparar, aplicar y calificar exámenes, proporcionar retroalimentación, conducir sesiones de laboratorio y dirigir trabajos de grupos.

ESTUDIOS REALIZADOS

Certificación Internacional Aptis, Banda C.
Otorgado por el British Council.
1 de agosto de 2018, (aún vigente).

Formación Tecnopedagógica en Ambientes Virtuales de Aprendizaje, Blackboard 9.1
Servicio Nacional De Aprendizaje SENA
Junio de 2018.

Formación en Posgrado: Maestría en la Enseñanza del Inglés como Lengua Extranjera
UNIVERSIDAD INTERNACIONAL IBEROAMERICANA
Diciembre, 2017

Formación Profesional: Licenciada en Filología e Inglés
UNIVERSIDAD NACIONAL DE COLOMBIA
Bogotá, junio de 2003.

Formación informal: Training Sessions for Consultants and Teacher Trainers
BRITISH COUNCIL
Bogotá, Marzo 23 y 24, 2017

Formación Informal: Curso Virtual Microsoft Word y Excel
SENA
Bogotá, julio de 2009.

Formación Informal: Diplomado en Programación e inteligencia emocional con énfasis en el servicio.
CAMARA DE COMERCIO DE BOGOTA
Bogotá, julio de 2008.

Formación Informal: Diplomado "Técnicas de Aprendizaje acelerado con PNL".
INGENIERIA HUMANA
Bogotá, marzo de 2008.

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