

UNIVERSIDAD PARA LA COOPERACION INTERNACIONAL
(UCI)

DEVELOPMENT OF A PROJECT MANAGEMENT OFFICE FOR THE MINISTRY OF
INFRASTRUCTURE PUBLIC UTILITIES CIVIL AVIATION AND TRANSPORTATION,
GRENADA

TIFFANI DONALD

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This Final Graduation Project was approved by the University as
partial fulfilment of the requirements to opt for the
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DEDICATION

I dedicate this Final Graduation Project to my small and supportive family and friends—my mother, Kim, my aunt, Sandra, and my best friends, Lee and Fontain, who have been a pillar of support during this journey.

To my colleagues, thank you for all the words of encouragement and the constant reminder of my goals.

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Thank you to my colleague Kimon, Permanent Secretary, Chief Technical Officer, and other staff of the Ministry of Infrastructure for participating so willingly while I collected data for this Final Graduation Project.

Thank you to Ms. Stephanie Flores Bradshaw for the extended hours spent reviewing the project, especially given the short window.

ABSTRACT

The objective of this project is to develop a Project Management Office (PMO) for the Ministry of Infrastructure. The PMO has a significant influence on the strategic performance of any organisation, as there is no such office in the Ministry of Infrastructure. This project will serve as a guideline to be adopted. The Ministry often fails to deliver projects on time and within the original budget. Other Ministries also rely on their capabilities, and with the implementation of a PMO, different departments and statutory bodies will benefit.

Over the years, there has been an increase in the variety, quantity, and complexity undertaken by the Ministry; however, the inverse is experienced as it relates to the quality of implementation. Projects have been experiencing overruns in cost and time, increase in those abandoned, and the need for Contract termination due to non-performance. Moreover, the staff turnover has been at an all-time high, less experienced personnel are being engaged, and donors are frequently requesting to rescind monies. All these issues are attributed to the lack of a dedicated PMO.

In the preparation of the Final Graduation project, the Ministry's project management deficiencies were examined using a combination of questionnaires, interviews, and review of journal articles. The Project Management Maturity Model was also developed to determine the maturity of the Ministry. The data collected supports the assumed challenges such as cost overruns, project delays and poor inter-ministry communication, as well as incorrect project management practices.

It was also determined that the best PMO to be introduced into the Ministry was the controlling PMO as it best aligns with the Ministry's structure. This PMO's performance should be reviewed quarterly based on the data collected and the needs of the department.

Lastly, the recommendations included introduction of the PMO gradually, piloting on low value projects and of core project management training and capacity building courses.

INDEX OF CONTENTS

INDEX OF FIGURES	xi
ABBREVIATIONS AND ACRONYMS.....	xiv
EXECUTIVE SUMMARY	xv
1 INTRODUCTION	1
1.1 Background.....	1
1.2 Statement of the problem.....	2
1.3 Purpose.....	3
1.4 General objective	4
2 THEORETICAL FRAMEWORK.....	6
2.1 Company/Enterprise framework.....	6
2.1.1 Company/Enterprise background.....	6
2.1.2 Mission and vision statements	7
2.1.3 Organisational structure	8
2.1.4 Products Offered	13
2.2 Project Management concepts	14
2.2.1 Project management principles	14
2.2.2 Project management domains	16
2.2.3 Predictive, adaptative, and hybrid projects	17

2.2.4	Project management.....	19
2.2.5	Project management knowledge areas and processes.....	20
2.2.6	Project life cycle	23
2.2.7	Company strategy, portfolios, programs and projects	25
2.3	Other applicable theory/concepts related to the project topic and context	26
2.3.1	Current situation of the problem or opportunity in study	26
2.3.2	Previous research done for the topic in the study	28
2.3.3	Other theories related to the topic in the study	30
3	METHODOLOGICAL FRAMEWORK.....	33
3.1	Information Sources.....	33
3.1.1	Primary sources.....	33
3.1.2	Secondary sources.....	34
3.1.3	Research methods	36
3.1.4	Tools	40
3.1.5	Assumptions and constraints.....	42
3.1.6	Deliverables	45
4	RESULTS	47
4.1	To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery	47

4.2	To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO. ...	56
4.3	To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.	68
4.4	To incorporate the PMO into the existing government structure through the standardisation of the Project Management framework and the utilisation of best practices...	75
4.5	To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.	85
5.	CONCLUSIONS.....	87
5	RECOMMENDATIONS.....	89
6	VALIDATION OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT.....	90
6.1	Relationship of the project to the Sustainable Development Goals.....	91
6.2	Analysis of the project according to Standard P5.....	94
6.2.1	P5 Impact Analysis.....	96
7	BIBLIOGRAPHY.....	116
8	APPENDICES.....	122
8.1	APPENDIX 1: FGP Charter.....	123

8.2	APPENDIX 2: FGP WBS.....	140
8.3	APPENDIX 3: FGP SCHEDULE	141
8.4	APPENDIX 4: PRELIMINARY BIBLIOGRAPHICAL RESEARCH	145
8.5	APPENDIX 5: OTHER RELEVANT INFORMATION	150

INDEX OF FIGURES

Figure 1 Existing Organisational Chart for the Ministry of Infrastructure (Source: Author).....	11
Figure 2 Proposed Organisational Chart for the Ministry of Infrastructure (Source: Author) ...	12
Figure 3 Sample Adapted Organisational Structure	13
Figure 4 Sample Predictive Life Cycle.....	19
Figure 5 Project Management Knowledge Areas	22
Figure 6 Project Life Cycle.....	24
Figure 7 Showing the current roles of respondents (Source: Author)	48
Figure 8 Showing years of employment from respondents (Source: Author).....	48
Figure 9 Respondents' familiarity with the PMO (Source: Author)	49
Figure 10 Respondents' opinions on the occurrence of cost overruns (Source: Author).....	50
Figure 11 Respondents' opinions on the occurrence of time overruns (Source: Author)	50
Figure 12 Causes of time and cost overruns (Source: Author).....	51
Figure 13 Respondents' opinion on the negative impacts of the absence of a centralised PMO (Source: Author)	52
Figure 14 Deficiencies due to a lack of a PMO (Source: Author).....	53
Figure 15 Responses to the benefit of establishing a PMO (Source: Author)	54
Figure 16 Key functions the PMO should fulfil (Source: Author).....	55
Figure 17 Number of project respondents have managed (Source: Author)	58

Figure 18	Magnitude and Complexity of respondents' projects (Source: Author).....	59
Figure 19	Source of funding for the respective projects (Source: Author).....	60
Figure 20	Maturity Level Radar Graph (Source: Author)	61
Figure 21	Maturity Level Bar Graph (Source: Author).....	62
Figure 22	Respondents' opinion on the positioning of the PMO within the Ministry (Source: Author).....	70
Figure 23	The type of PMO respondents believe should be adopted (Source: Author).....	71
Figure 24	The level of authority of the PMO suggested by the participants (Source: Author).	71
Figure 25	Challenges with implementing a PMO (Source: Author)	72
Figure 26	Key Performance Indicators (Source: Author).....	73
Figure 27	Frequency of PMO performance review (Source: Author).....	74
Figure 28	Proposed PMO organisational structure (Source: Author).....	80
Figure 29	Process flow to roll-out implementation (Source: Author)	81
Figure 30	PMO Introduction Schedule (Source: Author).....	83
Figure 31	PMO Introduction Schedule Cont'd (Source: Author)	84
Figure 32	Range of PMO training activities across the PMO continuum	86
Figure 33	P5 People Impact Bar Graph (Source: Author).....	112
Figure 34	Plant impact bar graph (Source: Author).....	112
Figure 35	P5 prosperity impact bar graph (Source: Author)	113

INDEX OF CHARTS

Table 1	Information sources	35
Table 2	Research methods	38
Table 3	Tools	41
Table 4	Assumptions and constraints	43
Table 5	Deliverables	46
Table 6	Experience of respondents	57
Table 7	Maturity level of the knowledge areas by each Project Manager.....	66
Table 8	P5 Impact Analysis	96
Table 9	P5 Impact Analysis Scores	111

ABBREVIATIONS AND ACRONYMS

CDB	Caribbean Development Bank
CTO	Chief Technical Officer
FGP	Final Graduation Project
ICT	Information and Communication Technology
KPI	Key Performance Indicator
PM	Project Manager
PMO	Project Management Office
PMI	Project Management Institute
PMMM _{sm}	Project Solutions Project Management Maturity Model
WBS	Work Breakdown Structure

EXECUTIVE SUMMARY

The Ministry of Infrastructure in Grenada plays a vital role in the country's socio-economic development through its oversight of transportation systems, public utilities, construction, land use regulation, and disaster management. Over the years, the Ministry's scope has expanded to include maintaining government buildings and managing ICT services, reflecting the nation's evolving infrastructure needs amid urban growth and increasing climate resilience concerns. Its diverse responsibilities ensure the provision of essential services such as clean water, waste management, and road maintenance for the people of Grenada, Carriacou, and Petite Martinique.

In addition to direct service delivery, the department functions as a technical advisor to other government departments on engineering projects, fostering collaboration across sectors. However, the absence of a centralised project management structure has sometimes led to delays, inefficiencies, and cost overruns. The introduction of a Project Management Office (PMO) would help standardize processes, optimise resource use, and align project outcomes with national development goals, ensuring that infrastructure projects are delivered on time, within budget, and with maximum impact.

The Ministry faced significant challenges in delivering projects effectively, including frequent delays, budget overruns, and a lack of standardised project management practices. The absence of a centralised PMO had resulted in inconsistencies in how projects were planned, executed, and monitored. Furthermore, since other government ministries depended on the technical expertise of the Ministry of Infrastructure, these inefficiencies negatively affected the broader public sector's ability to implement infrastructure initiatives successfully.

Moreover, the problems were compounded by a lack of project management training and improper staff allocation, which further reduced efficiency and led to suboptimal use of resources. Reports indicated that the Ministry spent millions of dollars annually on mismanaged projects, emphasising the urgent need for structured oversight. The establishment of a PMO was seen as a solution that would provide a unified framework for regulating project activities, improving accountability, optimising resource use, and aligning project outcomes with national strategic goals, ultimately enhancing project success across all government departments.

The general objective of the project was to establish a PMO to enhance project delivery, governance, and strategic alignment within the Ministry of Infrastructure. To achieve this, the project aimed to evaluate the existing deficiencies caused by the absence of a PMO, conduct a maturity analysis to assess organisational needs and related risks, and determine the most appropriate PMO structure, including the development of relevant performance indicators. Additionally, it sought to integrate the PMO into the existing government framework by standardising project management practices and applying recognised best practices. Finally, the project identified the necessary resources and implemented training and capacity-building programs to strengthen the capabilities of the project team.

In carrying out this research, three methods were adopted: (i) the analytical method, which involved critical evaluation based on available information; (ii) the deductive method, which tested

the hypothesis derived from existing theories; and (iii) the applied research method, focused on solving this problem by translating theoretical research into practical application. The results of the surveys conducted affirmed the assumptions as the participants indicated that the weaknesses and challenges within the Ministry are cost overruns, project delays and poor communication across departments. The maturity analysis conducted on the department revealed that the Ministry is between a level 1 and 2 maturity, whereas it should be functioning at a minimum level 3.

Through further analysis, the type of PMO to be implemented was identified as a Controlling PMO, as it allows for a balance between guidance and authority. To achieve this, the study found that the PMO should be rolled out through a pilot programme and then gradually integrated into the current structure. Additionally, training and resources were identified to aid in the effective and efficient development of the PMO and improve the capabilities of the staff.

This research identified several gaps with the Ministry's project management and implementation strategy; nonetheless, data collected through surveys and interviews have suggested that the issues can be remedied with the integration of a Controlling PMO and adjustments to the existing government structure.

1 INTRODUCTION

1.1 Background

The Ministry of Infrastructure in Grenada is responsible for the planning, development, and maintenance of the nation's infrastructure. This includes overseeing transportation systems, regulating public utilities, managing construction projects, and coordinating disaster management efforts. Historically, the Ministry has played a crucial role in Grenada's economic and social development. The government's infrastructure policies have evolved to address the growing demands of urbanization, transportation, and climate resilience. Over time, the Ministry has expanded its responsibilities to include the regulation of land use, government building maintenance, and ICT service management.

This diverse portfolio of the Ministry serves every citizen of Grenada, Carriacou, and Petite Martinique through the provision of potable drinking water, a safely maintained road network, waste collection and processing, community-based local area, and other physical development planning initiatives. The Ministry also serves as the technical adviser and supervisor of other ministries, and government departments in their areas of civil engineering, electrical engineering, and mechanical engineering projects. Even though each department is charged with specific responsibilities and functions, there is always a good deal of co-operation in ensuring the effective utilization of available manpower for successful implementation of all government projects.

Without a centralized project governance structure, projects may face issues such as cost overruns, delays, and inefficiencies. A PMO would streamline project management processes, ensuring that projects are completed on time, within budget, and according to strategic goals.

1.2 Statement of the problem

The Ministry of Infrastructure in Grenada (the Ministry) is the line ministry of all public development in the country, which can range from government buildings such as schools and medical centres, or public infrastructure, such as roads and bridges. On average, the Ministry is given a budget of 50 million United States dollars to implement its projects. In addition to the local budget, the Ministry often receives sponsorships from several multilateral agencies, for example the Caribbean Development Bank, the World Bank, as well as through bilateral agreements.

Over the years, there has been an increase in the variety, quantity, and complexity undertaken by the Ministry; however, the inverse is experienced as it relates to the quality of implementation. Projects have been experiencing overruns in cost and time; there has been an increase in those abandoned; and there has been the need for contract termination due to non-performance. Moreover, the staff turnover has been at an all-time high, less experienced personnel are being engaged, and donors are frequently requesting to rescind monies. All these issues are attributed to the lack of a dedicated PMO.

Research carried out by Sandhu et al. (2024a) states that the PMO has a critical influence on the strategic performance of an organisation. Several investigations were carried out on the definition and responsibilities inside the strategic planning and implementation of projects within organisations. The primary focus of these studies was developing a definition of a PMO that could reflect the essence of its function and role. According to PMI, a PMO is a management structure that standardises the project-related governance processes and facilitates the sharing of

resources, methodologies, tools, and techniques. Its primary role is to manage and oversee several projects under the organisation.

Ichsan et al. (2023) further substantiate the importance of the PMO through his claim that a PMO is a necessity for public and private sector organisations whose main activities are project related. They increase the value contribution of project management, which is ensured by the effective use of resources. Tumi (2020) also mentions that PMOs are becoming especially prevalent in industries that handle high-risk, high-cost projects. These include IT, telecom, defence, and aerospace industries. It should also be mentioned that organisations are incentivised to maintain a PMO for numerous reasons: to reduce the risk of project failure and increase the chances of business success; to ensure maximum return on investment; to make efficient use of resources; and to utilise resources effectively across a range of projects and programs.

For this research, a qualitative approach will be utilised where the research is divided into two main phases: survey and focus group discussion. It will be further broken down into several sub-sections, including defining research questions, outlining the introduction, identifying research sources, extracting data, and analysing results to answer research questions.

1.3 Purpose

The purpose of this project is to develop a Project Management Office for the Ministry of Infrastructure. The PMO has a significant influence on the strategic performance of any organisation, as there is no such office in the Ministry. This project will serve as a guideline to be adopted. The Ministry often fails to deliver projects on time and within the original budget. Other

Ministries also rely on their capabilities, and with the implementation of a PMO, other departments and statutory bodies will benefit.

Further, this project will allow the Ministry to improve its project management skills, standardise processes, methods, tools, and techniques to regulate management and enable the development of routines. The PMO can also increase the value contribution of the project management department, which ensures efficient and effective use of resources. The lack of frequent training negatively impacts the department; moreover, staff are not correctly assigned to the tasks critical to the project delivery.

Lastly, the Ministry spends 10s of millions of dollars annually on mismanaged projects. Investment in a PMO will ensure that resources are allocated to manage the activities and expenditure of projects, thereby demonstrating the Government's commitment to accountability with national revenue..

1.4 General objective

The objective of this project is to develop a Project Management Office (PMO) to improve the project delivery, governance, and strategic alignment within the Ministry.

1.5 Specific objectives

The specific objectives of this project are to:

1. To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery.
2. To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.
3. To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.
4. To incorporate the PMO into the existing government structure through the standardisation of the Project Management framework and the utilisation of best practices.
5. To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.

2 THEORETICAL FRAMEWORK

2.1 Company/Enterprise framework

2.1.1 Company/Enterprise background

The Ministry of Infrastructure Development, Public Utilities, Energy, Transport & Implementation is a multifaceted Government organisation tasked with the responsible management of public infrastructure, utilities and resources, regulatory and technical supervision of the construction industry, physical development, and other traditional communication services.

This diverse portfolio of the Ministry serves every citizen of Grenada, Carriacou, and Petite Martinique through the provision of potable drinking water, a safely maintained road network, waste collection and processing, community-based local area, and other physical development planning initiatives. The Ministry also serves as the technical adviser and supervisor of other ministries and government departments in their areas of civil engineering, electrical engineering and mechanical engineering projects. Even though each department is charged with specific responsibilities and functions, there is always a good deal of co-operation in ensuring effective utilisation of available manpower for the successful implementation of all government projects.

Thousands of projects are implemented by the Ministry annually. These include construction of new public buildings, new roads, and bridges. Additionally, the Ministry is responsible for the maintenance of all public buildings and facilities.

2.1.2 Mission and vision statements

Mission

To protect and enhance the Nation's investment in infrastructure and to provide regulatory oversight for public utilities, civil aviation, and transportation

Vision

To become the lead transformational agent of the Government of Grenada by creating an enabling environment for the provision of safe, reliable and adequate infrastructure, public utilities, civil aviation, and transportation through which the national agenda can be advanced

2.1.3 Organisational structure

An organisational structure defines the reporting relationships in an organisation. In fact, there isn't any one optimal organisational structure ideal for a particular strategy or kind of organisation. What is suitable for one organisation may not necessarily work for another organisation of the same type, notwithstanding that successful organisations in an industry tend to structure themselves in the same manner. Small firms tend to be functionally structured (centralised), while medium-sized firms tend to be divisionally structured (decentralised). Large firms tend to use a matrix structure (Awa, 2016).

Once an office changes its strategy, the current organisational structure may become ineffective. Nonetheless, what is more crucial is deciding what kinds of structural changes are necessary to effect new strategies and how to best accomplish these changes. Functional organisational structure is one of several reporting structures a company could implement. It is the most widely used structure because it is the simplest and least expensive of the seven alternatives. This form of structure tends to sort their employees on their specific skills and job functions and is best suited for smaller companies or those that focus on a single product or service. Generally, all functional heads will report directly to the company president or managing director or CEO, as designated.

As it relates to the Ministry of Infrastructure, the current head is the Minister for Infrastructure, ultimately all functional heads report to him, and other level roles will report to the functional heads. The benefit of this is that functional structure brings efficiency into the operations. When employees are allowed to focus on one specific functional area to the exclusion of all else, they can achieve significant efficiencies in terms of process flow and management methods. As a principal advantage, it seems logical to have a department that

consists of experts in a particular field such as engineering or accounting as can be seen in the chart below. An engineer is generally more efficient when working with other engineers and individuals with similar backgrounds and interests. They can share expertise to get the work done. Moreover, there is a clear hierarchy or chain of command in this structure, so everyone knows what decisions they are allowed to make and who to report to and the number of employees reporting to each functional manager.

Notwithstanding the benefits of the functional structure, there are several challenges involved in its utilisation; the hierarchical nature of decision-making may cause the system to be disturbed by bureaucratic bottlenecks. Usually, before decisions are reached, even for trivial and routine matters, files must pass through certain officers in the chain, even when little or no value would be added, inadvertently delaying the activities. Accountability may also be an issue as it is difficult to lay responsibility for an action on a particular employee when the inputs must be made by so many individuals before a final decision is made. This proves most disadvantageous when crucial decisions have to be made as no one will accept responsibility.

Another challenge is the tendency for poor communication across the various functional silos within the Ministry, potentially decreasing flexibility and innovation. Albeit functional areas may have difficulties working with other functional areas. There is often a perception that they are competing with other functional areas for resources, and a lack of understanding what other areas do for the organisation. Furthermore, in a functional structure there is no unambiguous way to determine the effectiveness of separate functional managers (e.g., the managers of administration and engineering) because each function contributes jointly to the organisation's final output. Therefore, there is no way of measuring what fraction of success was

contributed by each. Similarly, at the lower levels in the organisation, there is no way of determining how much of the success was earned respectively by the various departments.

The development of a PMO would act as the unit to manage projects to see transformation as well as coordinate, communicate, share knowledge, practices, and progress across the departments. The tasks of a PMO concentrate on the one hand on the establishment and ongoing development of project management and on the other hand on the planning, control, and implementation support of projects and portfolios in the company.

Figure 1

Existing Organisational Chart for the Ministry of Infrastructure (Source: Author)

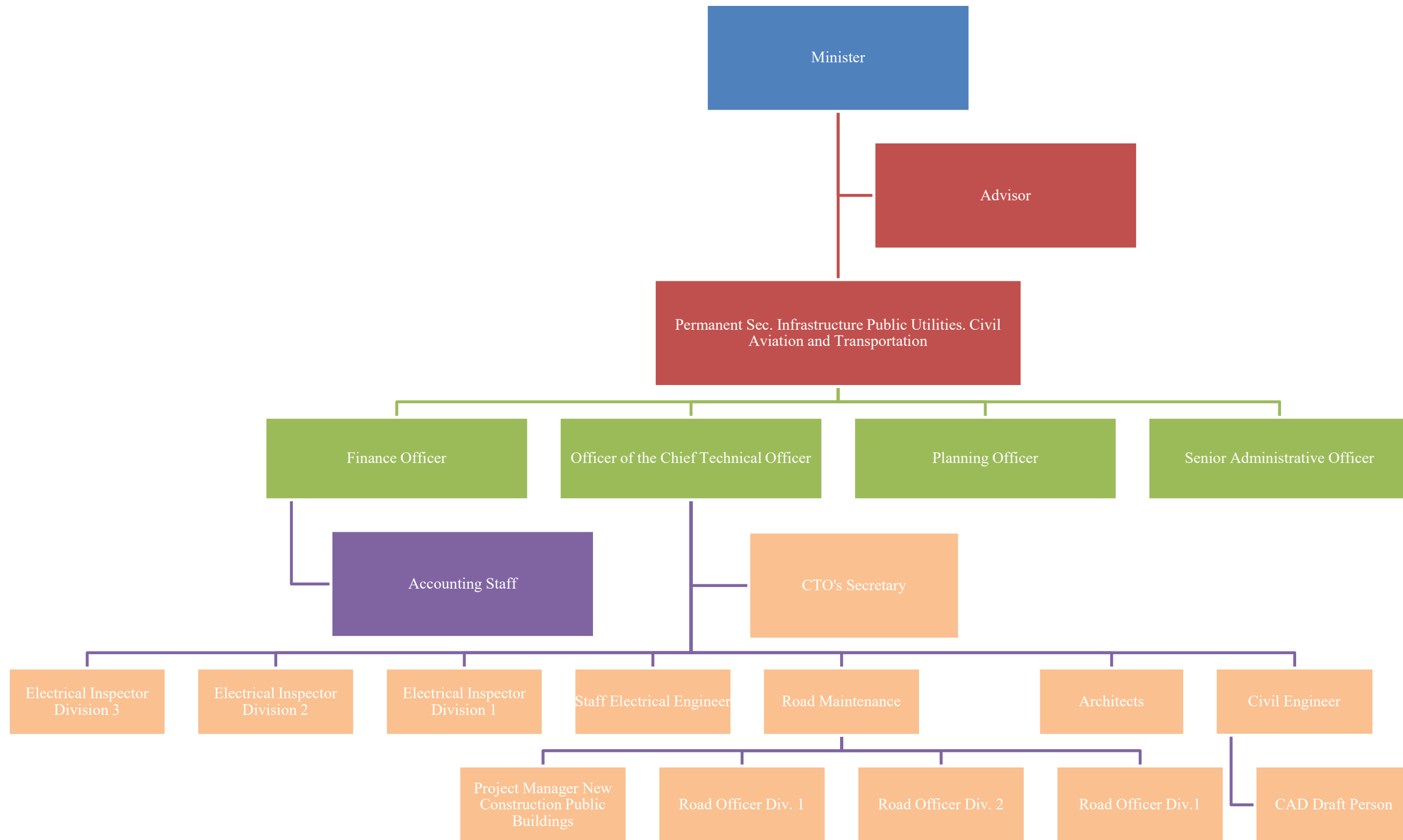


Figure 2

Proposed Organisational Chart for the Ministry of Infrastructure (Source: Author)

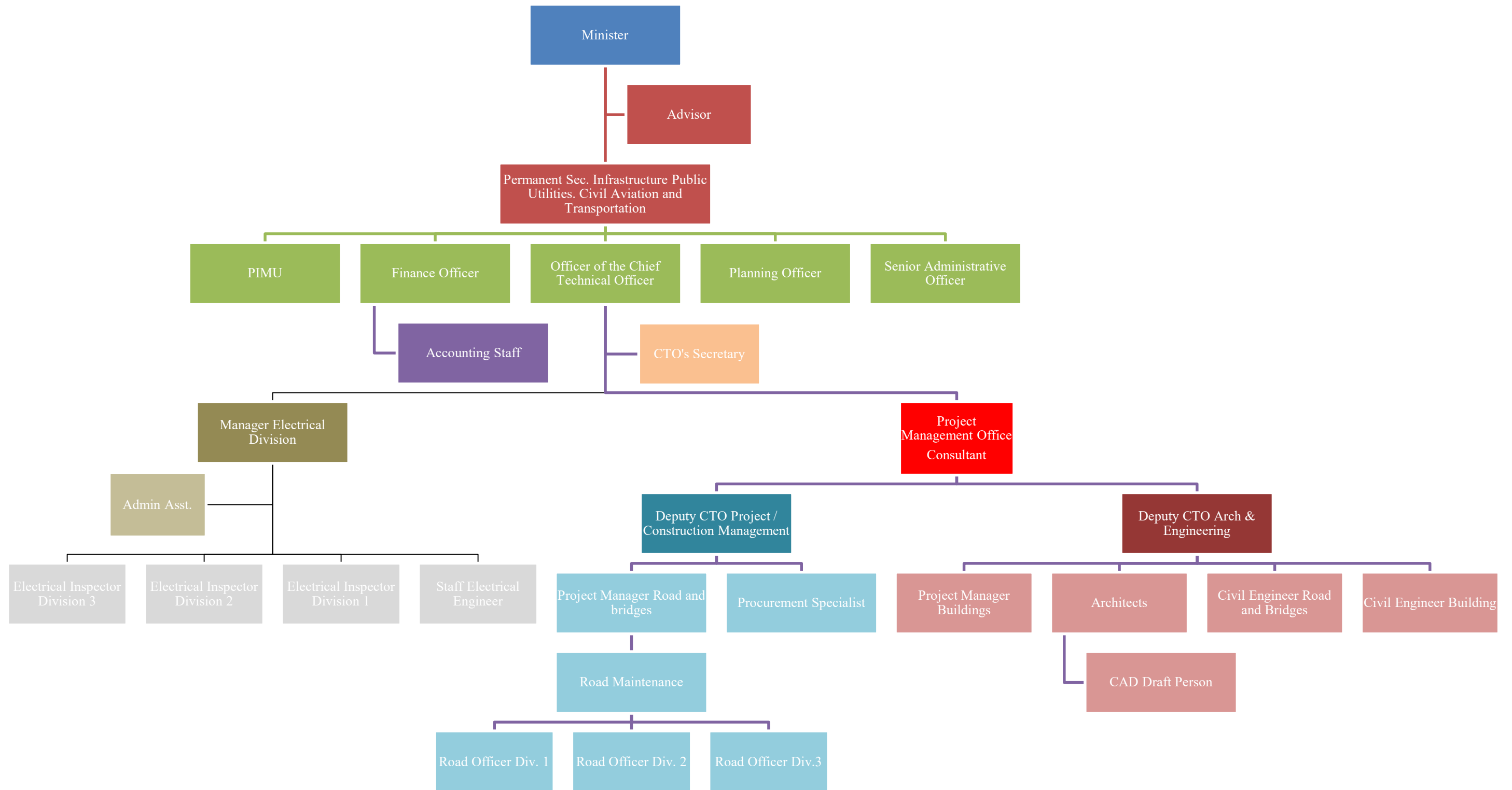
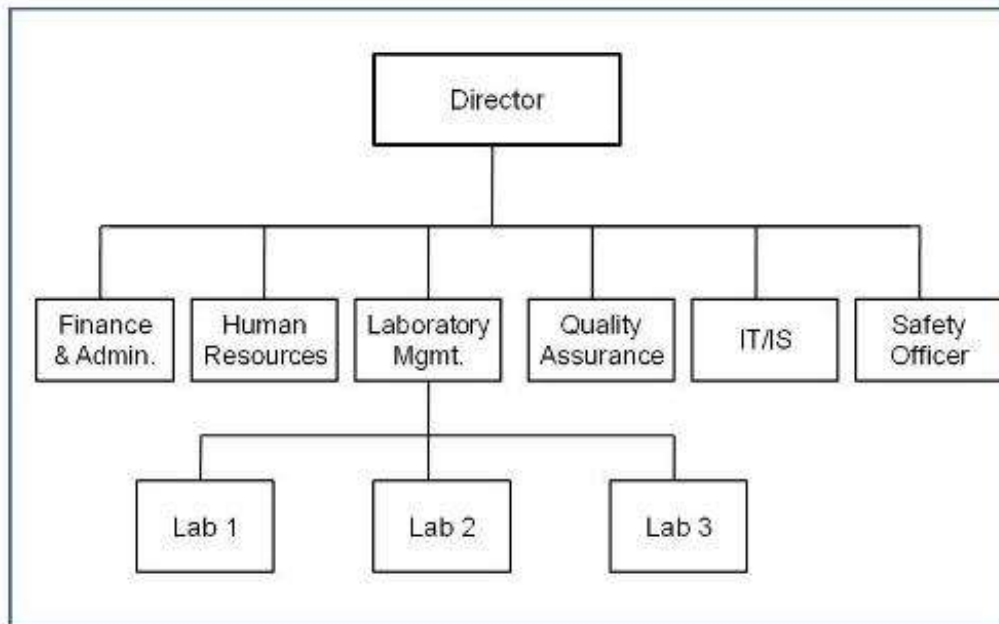


Figure 3

Sample Adapted Organisational Structure



Note: Adapted from the *Positions Manual* (p.120), Development Company, 2022, with authorisation from the author. Own creation.

2.1.4 Products Offered

- Road Infrastructure – Maintenance and development of roads, bridges, and other transport networks.
- Public Utilities – Oversight of electricity distribution (via Grenada Electricity Services Ltd - GRENLEC), telecommunications, and water services.
- Transportation – Management of air and sea transportation, including Maurice Bishop International Airport and major seaports.

- Electrical Inspections – Issuing certificates of approval for electrical installations.
- Postal Services – Coordination of postal services through the Grenada Postal Corporation.
- Emergency Response – Implementation of contingency response plans for disasters.
- Building Development – Oversight of government building projects and infrastructure improvements.

2.2 Project Management concepts

2.2.1 Project management principles

The Project Management Principles represent guidelines adopted by project managers to ensure project success is achieved; they are intended to guide the behaviour of people involved in projects. There is an inherent relationship between these principles and the Project Management Office as the qualities are not just related to competence, experience, and funds. It is the mindset, the standards of thinking, and value that drive the work forward and it is critical to the success of the project.

1. Stewardship: this involves looking after the project and the act with its best intentions, while doing this the project manager must act with integrity and honesty.
2. Collaborative Team: projects are delivered through teams, and it is crucial to understand how to ensure the team work cohesively and effectively. This starts with building a culture of accountability and respect. A positive culture helps the project management office operate positively without disruptions.
3. Stakeholder Engagement: Considering each stakeholder has expectations of the project, understanding their needs is weighted heavily.

4. **Focus on Value:** This refers to the balance between benefits gained and resources spent. This principle applies more during the planning and execution phases since this is where one will align delivery to the goals.
5. **System Interactions:** This refers to systemisation; the organisation is a big system and each ministry interacts with each other as a system; therefore, it is important that the PMO understands how each is related to the other.
6. **Leadership:** This does not mean running a team with strong authority and strict orders. Effective leadership promotes project success and contributes to positive project outcomes. In fact, any project team member can demonstrate leadership behaviour.
7. **Tailor Based on Context:** It is critical for the PMO to understand that each project is unique; they come in all sizes and complexities. It involves selecting the optimal delivery approach based on the context, team culture, and maturity.
8. **Build Quality into Processes and Results:** Quality should be built into processes and results as stakeholders expect that the end results fit the purpose and meets their needs. PMOs must ensure that quality is incorporated into the project from the onset.
9. **Navigate Complexity:** Project teams often cannot foresee complexity emerging as it is the result of many interactions such as risks, dependencies, events or relationships. For this reason, PMOs must stay vigilant in identifying elements of the complexity and use a variety of methods to reduce the amount or impact.
10. **Optimise Risk Response:** PMOs can manage multiple projects containing several stakeholders. Risk management helps managers and their teams deal with competing demands and focus on the things that matter most.

2.2.2 Project management domains

PMBOK describes the performance domains as a set of related activities that constitute a core element in project management, each of which is a valuable component that adds to the overall project success. The PMO is responsible for incorporating these domains into the organisations project management framework. The goal is to ensure that strategic alignment, governance standardisation, and continuous improvement are achieved across all projects.

1. Stakeholder: This domain emphasises engagement of stakeholders effectively to align their needs to the project goals, misalignment with stakeholders can lead to project setbacks, missed requirements, or conflict.
2. Team: This domain involves the formation, development, and management of the project team, ensuring they have the necessary skills, resources, and support to deliver the project. A well-managed and motivated team is critical.
3. Development Approach and Lifecycle: This domain covers the selection and management of the project's development approach, whether it is agile, waterfall or hybrid. It also includes the definition of the project cycle stages and phases,
4. Planning performance domain: Planning can be considered the backbone of any project, and this domain emphasises creating a realistic and achievable plan for delivering project objectives.
5. Project Work: The focus in this domain is ensuring that the project it's tasks and activities are executed efficiently. It involves executing, coordination, monitoring of day-to-day work, and alignment of resources to accomplish project goals while staying within budget and schedule.

6. **Delivery:** This domain surrounds delivering the agreed upon project outputs. It involves managing the acceptance and transition of deliverables to the client or end-user. The ultimate goal of any project is to deliver value to the client or end user, successful delivery fosters client satisfaction, as it demonstrates the project has met or exceeded their expectation.
7. **Measurement:** Measurement is vital for maintaining control over a project. Through consistent tracking of progress and performance metrics, project managers gain insight into whether the project is on track or if adjustments are necessary.
8. **Uncertainty:** Uncertainty can lead to unforeseen delays, costs or changes in scope. Through active management of risks, the PMO can minimise the negative impact of an unexpected event.

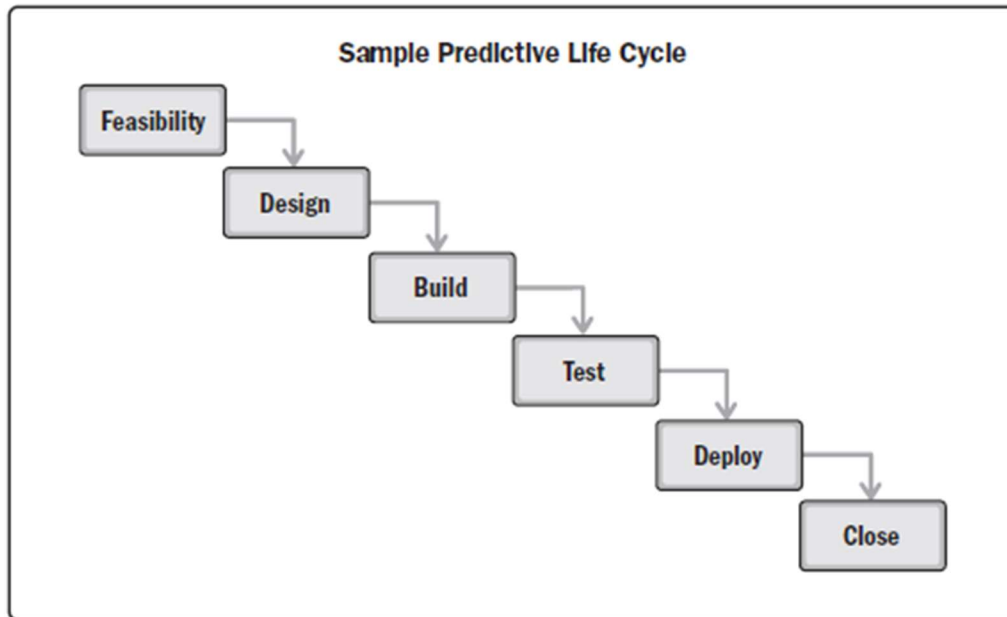
2.2.3 Predictive, adaptative, and hybrid projects

An approach is the highest level of concepts used when describing how a project will be designed and governed. It suggests a set of principles and guidelines that defines the way a specific project is managed. It provides direction for methodologies that can be developed to fit within the principles of the approach. Iqbal (2024) explains that the predictive strategy can be considered plan driven; a precise plan is developed and adhered to throughout the duration of the project. The timeline, budget, and deliverables are all defined and determined from the beginning of the project. This method is ideal for projects with well-defined needs and a stable environment. The adaptive approach, otherwise known as the change-based strategy or agile approach, places significant emphasis on adaptability and flexibility.

Based on feedback from the stakeholders and changes in the development environment, requirements and project plans are continuously revised and reevaluated. This strategy is ideal for projects with rapidly evolving requirements and a high level of uncertainty. Likewise, the hybrid technique is change-based. As the name implies, it contains features of both the predictive and adaptive approaches. It involves drafting a high-level strategy at the beginning of the project while allowing for flexibility and modification as the project develops. This strategy is ideal for projects which may require a balance of predictability and flexibility. Hybrid approaches often use an iterative or incremental developmental approach.

There are several factors that may influence the selection of a development approach. They can be divided into product, services or result; project and the organisation (Project Management Institute (PMI), 2021). Variables can influence the development approach. In the case of the predictive approach and the adaptive approach, the degree of innovation plays a crucial role likewise is the requirements certainty. A hybrid approach can be influenced by schedule constraints, such as when there is a need to deliver something sooner, even if it is not finished.

The traditional PMO primarily focuses on standardisation, compliance, and governance, but the utilisation of the predictive approach in the PMO takes a more structured, responsive, and value-driven role, which ultimately facilitates project success while maintaining strategic alignment. As it relates to the lifecycle and number of phases, it is dependent upon many variables (Project Management Institute (PMI), 2021). Using the predictive approach, the entire project is planned with each phase, e.g., planning, design, and build, is completed before moving to the next. Changes can be accommodated through a change management process; however, it can be seen as disruptive.

Figure 4*Sample Predictive Life Cycle*

Note, From A guide to Project Management Body of Knowledge, by Project Management Institute PMI (2021), Sample Predictive Life Cycle, Permission not Sought

2.2.4 Project management

Project administration focuses on two objectives: one is relieving the project team as much as possible from the burden of project management administrative responsibilities. The second objective is to achieve scheduling control. It views project management as a process control system. Once plans are built and the project is executing, a feedback loop is provided in the form of clear, easy-to-understand status reports, which the project participants and managers use to adjust their activities.

Project administration is the necessary evil of every project. One must know what is being worked on, what is completed, what is delayed, what are the issues, etc. (Item, 2019).

When project deployments are set up incorrectly or lack good tools, the administrative work shifts from the project team members to the project manager.

Project management is the application of processes, methods, skills, knowledge and experience to achieve specific project objectives according to the project acceptance criteria within agreed parameters. Project management guides a project from start to finish. With a structured approach, teams can achieve specific goals within a defined time, budget, and resource constraints. Project management helps to transform ideas into tangible results, driving business growth and innovation. Project management is essential to improve organisational efficiency, communication, reduce impacts of risks, increase measurable outcomes and stakeholder satisfaction (Atlassian, n.d.). Project Administration supports project managers in achieving project objectives efficiently and effectively while maintaining quality standards.

The project administrator reports to the project manager in terms of hierarchy. In many respects, the project administrator is the project manager's right hand and deals with recurring tasks so the project manager can focus on the project plan (Landau, 2024).

2.2.5 Project management knowledge areas and processes

The Project Management Institute (2021) organises the project management processes into five process groups: initiating, planning, executing, monitoring and controlling, and closing. These process groups are not sequential phases, but rather overlapping and iterative activities that occur throughout the project life cycle. Each process group consists of several processes that have specific inputs, tools and techniques, and outputs. The process groups help you align your

project objectives, scope, schedule, budget, quality, risk, resources, communication, and stakeholder expectations.

The process groups are necessary because they help with application of the project management knowledge, skills, tools, and techniques to deliver value to customers and stakeholders. Following the process groups ensures that your project is initiated with a clear vision and purpose, planned with realistic and measurable goals, executed with effective and efficient actions, monitored and controlled with timely and accurate feedback, and closed with proper documentation and lessons learned. The process groups also help to manage the changes, risks, issues, and conflicts that may arise during the project.

According to Project Management Academy (2025), initiating helps to set the vision of what is to be accomplished. This is where the project is formally authorised by the sponsor, the initial scope is defined, and stakeholders are identified. Planning is a crucial element. It establishes the total scope of the project. In planning, the project manager uses an iterative and more detailed planning technique, called progressive elaboration, which allows project documents to be developed at a detailed level over time.

The executing process group is where the work is done. The project management plan will help keep us on track. This is where the project team starts doing the work of creating the deliverables while the project manager coordinates those resources. The monitoring and controlling process group is where the project manager assesses the overall performance of the project and makes necessary changes to keep it on track or to get back on track. Lastly, closing involves the formal closure or end of the project

Figure 5

Project Management Knowledge Areas

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	

*Note,*From *A guide to Project Management Body of Knowledge*, by Project Management Institute PMI

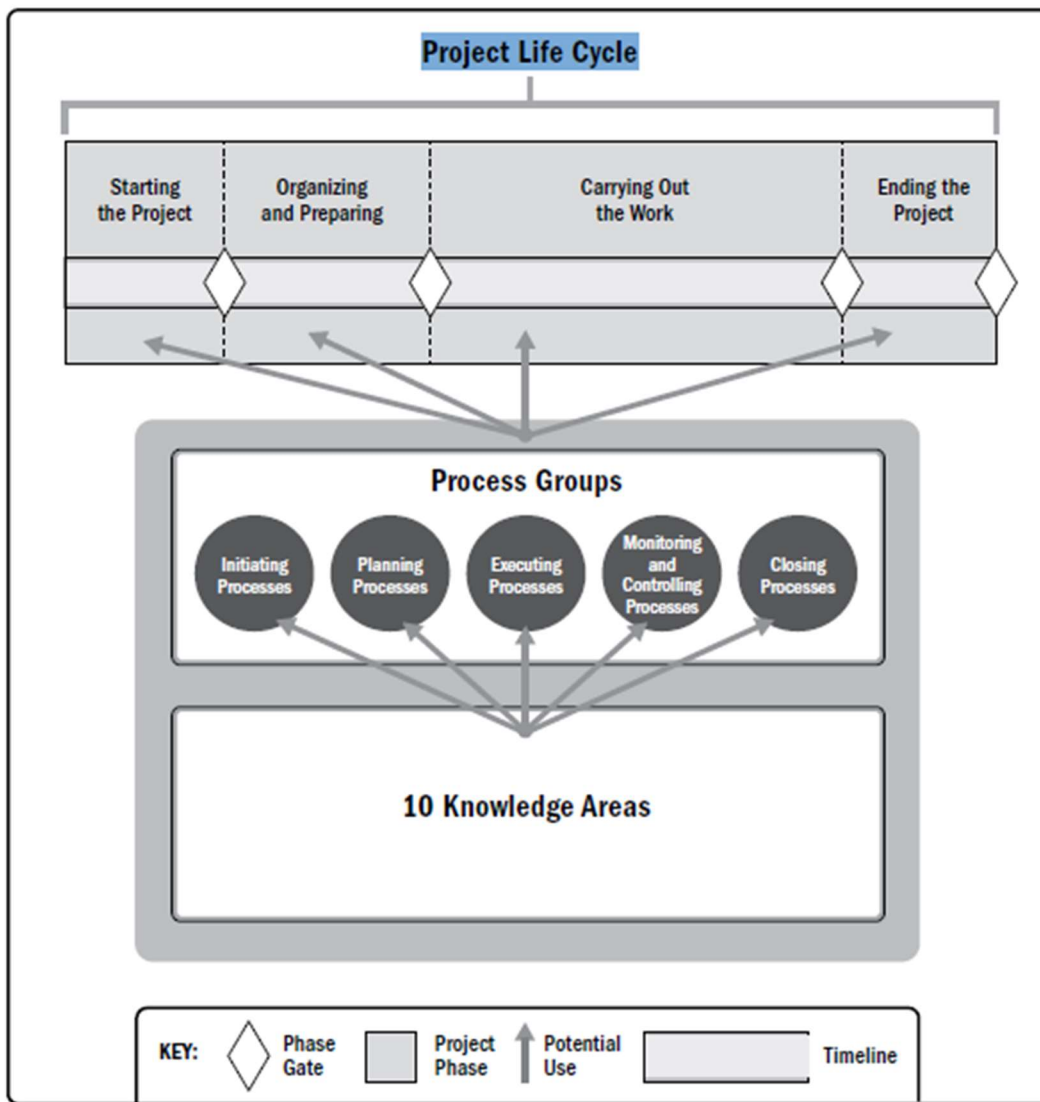
(2017), Project Management Process Group and Knowledge Area Mapping, Permission not Sought

2.2.6 Project life cycle

A project life cycle is the series of phases that a project passes through from its start to its completion. It provides the basic framework for managing the project. This basic framework applies regardless of the specific project work involved. The phases may be sequential, iterative, or overlapping. All projects can be mapped to the generic life cycle.

Figure 6

Project Life Cycle



Note, From A guide to Project Management Body of Knowledge, by Project Management Institute PMI (2017), Interrelationship of PMBOK® Guide Key Components in Projects, Permission not Sought

2.2.7 Company strategy, portfolios, programs and projects

Business strategy is the reason for the project and all needs are related to the strategy to achieve the value (Project Management Institute (PMI), 2021). According to Pmi-Atp (2024), business strategy is a complete collection of actions or activities that direct the use of a firm's resources to achieve the vision and goals of the business and provide a long-term competitive advantage. Strategic management involves translating strategy into action to operationalise strategic objectives and gain a competitive advantage. To ensure that strategies are translated into actions, they must be operational, which includes characteristics such as structuring an organisation to support successful performance and enabling success through the way an organisation's various resource areas are structured.

Programs are related to projects, subsidiary programs and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually. Schwartz (2025) states that this allows teams to achieve larger goals, increase productivity and improve operational efficiency. Program managers are in charge of managing programs. Programmes are generally long-term. Because the specific deliverables may not be fully defined at the start, a programme will often have a broad, adaptable scope.

Portfolios are made up of projects, programs, subsidiary portfolios and operations managed as a group to achieve a strategic objective.

As it relates to this project, the objectives more align with a business strategy as previously mentioned, the outcomes seek to is to develop a complete collection of actions or activities that direct the use of a firm's resources to achieve the vision and goals of the organisation.

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

2.3.1 Current situation of the problem or opportunity in study

The Ministry of Infrastructure in Grenada is the line Ministry of all public development in the country, which can range from Government buildings, such as schools and medical centres to public infrastructure, such as roads and bridges. On average, the Ministry is given a budget of 50 million United States dollars to implement its projects. In addition to the local budget, the Ministry often receives sponsorships from several multilateral agencies, for example the Caribbean Development Bank, the World Bank, as well as through bilateral agreements.

Over the years, there has been an increase in the variety, quantity and complexity undertaken by the Ministry; however, the inverse is experienced as it relates to the quality of implementation. Projects have been experiencing overruns in cost and time; there has been an increase in those abandoned; and there has been the need for contract termination due to non-performance. Moreover, staff turnover has been at an all-time high, and less experienced personnel are being engaged, and donors frequently request rescind monies. All these issues are attributed to the lack of a dedicated PMO.

The 2019 Caribbean Forum, hosted in Barbados by the Caribbean Development Bank, highlighted that challenges exist with the implementation of projects and policies not only in Grenada but in the region. These pose critical constraints for development and as a result demand attention in order to tackle the poor rates of implementation and weak implementation capacity. Dr. Warren Smith, President of the Caribbean Development Bank also attributed the lack of proper project implementation to the culture of lateness and absence of accountability, noting

that time is money, but lateness is only one manifestation of the implementation problem. He also suggested that the low rate of project delivery undermines private sector confidence and its willingness to invest in the bank (CDB President Calls to Tackle Weak Implementation in Development to Transform the Caribbean | Caribbean Development Bank, 2019).

Mahabir & Mahabir (2022) explore the challenges and lessons learned in integrating a project management office into the organisational structure of companies in Trinidad and Tobago. Its implementation has been a difficult and costly endeavour. It was also reported that there were challenges in creating a project management culture and realigning the resource management and allocation. Smoother integration was reported amongst companies that included suitable communication channels, pre-implementation planning, and project management training for PMO personnel in the process.

Currently, in Grenada at the Ministry of Infrastructure, efforts have been made to improve the performance of the department's project implementation. These include the engagement of expert project managers, promoting continuous professional development amongst staff and reallocating resources to maximise the efforts and efficiency. It is also evident that there has not been an assessment of the organisational maturity. In project management, to assess the organisation's development level in the field of project activities, the project maturity models are used.

For this research, a qualitative approach will be utilised where the research is divided into two main phases: survey and focus group discussion. It will be further broken down into several sub-sections, including defining research questions, outlining the introduction, identifying research sources, extracting data, and analysing results to answer research questions.

2.3.2 Previous research done for the topic in the study

Research carried out by Sandhu et al. (2024a) states that the Project Management Office (PMO) has a critical influence on the strategic performance of an organisation. Several investigations were carried out on the definition and responsibilities inside the strategic planning and implementation of projects within organisations, the primary focus of these studies was developing a definition of a PMO that could reflect the essence of its function and role. According to PMI, a project management office is a management structure that standardises the project-related governance processes and facilitates the sharing of resources, methodologies, tools and techniques. Its primary role is to manage and oversee several projects under the organisation.

It was found that the majority of private as well as public sector-based organisations are trying to explore new management tools and strategies that can aid them in streamlining the project execution and implementation. The project management office is one such tool which has stemmed from multiple inter-related disciplines such as business theories, project management, information technology, organisational behaviour, etc (Sandhu et al., 2024a). This source provides a valuable reference for this FGP since it highlights the importance of successful implementation in a numerous project-based environment similar to that which exists in the Ministry.

Ichsan et al. (2023) further substantiates the importance of the PMO through his claim that a PMO is a necessity for public and private sector organisations whose main activities are project-related. They increase the value contribution of project management, which is ensured by the effective use of resources. Tumi (2020) also mentions that PMOs are becoming especially prevalent in industries that handle high-risk, high-cost projects. These include IT, Telecom,

defence and aerospace industries. It should also be mentioned that organizations are incentivized to maintain a PMO for numerous reasons: to reduce the risk of project failure and increase the chances of business success; to ensure maximum return on investment; to make efficient use of resources; and to utilize resources effectively across a range of projects and programs. Interviews carried out by Tumi (2020) was used to determine the major challenges that governmental organizations face in implementing a PMO office. Based on this, it was determined to be change resistance, budget, resource management, organisational objective, lack of specialised skills and lack of understanding of the business.

Hussin Mohamed Hassan (in press) concluded that the PMO is expanding into many organisations and that for many others, there is a major desire to expand the PMO role to be much more strategically focused through expanded scope responsibilities and partnering with leaders to enhance organisational objectives.

One of the specific objectives of this FGP is to investigate the associated risks that develop as a result of the Ministry not having a PMO. Nikolaenko and Sidorov (2023) highlight that despite the significant development in the field of project management, many projects are still exposed to numerous risks, the materialisation of which prevents their successful completion. He discusses claims that frequent risk materialisation is a natural indicator that clearly demonstrates the immaturity of project teams and project managers. He also explains that to mitigate risks, many international project communities and leading scientists recommend using project management maturity levels and maturity models. This is crucial to the FGP as there is in fact a connection between project management maturity and the likelihood of successful completion.

2.3.3 Other theories related to the topic in the study

2.3.3.1 Maturity Level

Project management maturity is a measure of how well your organisation can deliver projects consistently, efficiently, and effectively. It reflects your ability to align your project goals with your strategic vision, optimise your processes and resources, and adapt to changing environments and customer needs. Achieving a high level of project management maturity can give you a competitive edge and customer satisfaction is a key driver of success. Organisational Performance.

A maturity model is a framework that defines the key characteristics and capabilities of different levels of project management performance, from basic to advanced. There are various maturity models available, such as the Project Management Maturity Model (PMMM), the Organisational Project Management Maturity Model (OPM3), or the Capability Maturity Model Integration (CMMI). They can be used to benchmark the current organisational state, identify strengths and gaps, and set your improvement goals and priorities.

A maturity assessment is a systematic and objective evaluation of your project management practices, processes, and outcomes. A Maturity Assessment can be conducted internally or externally, using tools such as surveys, interviews, audits or metrics. They can help the understanding of current capabilities, challenges, and opportunities as well as compare with industry standards and best practices.

Project management maturity is not a static or one-time achievement, but a dynamic and ongoing process. one should review and adjust project management maturity level regularly, taking into account the changes and trends in your internal and external environment, such as

your organizational strategy, goals, and priorities, the expectations and feedback, the industry standards and regulations, and technological advancements and opportunities.

2.3.3.2 Organisational Structure

A project organisation is a structure that facilitates the coordination and implementation of project activities. Its main reason is to create an environment that fosters interactions amongst the team members with a minimum number of disruptions, overlaps and conflicts. One of the important decisions of project management is the form of organisational structure that will be used for the project. One of the main objectives of the structure is to reduce the uncertainty and confusion that typically occurs at the project initiation phase. The structure defines the relationships among members of the project management and the relationships with the external environment. The structure defines the authority by means of a graphical illustration called an organisation chart.

Organisational structure not only includes the division of tasks and responsibilities but also influences the ways of communication, coordination, and decision-making in the context of project management. Choosing the right organisational structure can provide solid support for the project team, while a mismatch between the organisational structure and project characteristics can create obstacles that hinder progress.

2.3.3.3 Resource Management

Resource management is the systematic process of identifying, acquiring, allocating, and managing resources to ensure successful project completion. It involves effectively coordinating and using resources to achieve project objectives within defined scope, time, and budget constraints. Aligning resources with project goals is fundamental to successful project management. By matching the right resources to specific project requirements, companies can maximise efficiency, minimise costs, and enhance the likelihood of achieving project objectives. Resource management helps businesses, teams, and individuals make better decisions about resource allocation and utilisation. A structured approach allows organisations to evaluate capacity effectively and adapt to changing project demands.

Effective resource management is fundamental to successful project delivery. By optimising resource allocation and utilisation, businesses can reap various benefits. The following sections explore how effective resource management can enhance project efficiency, foster collaborative culture, improve risk management, and ultimately increase the likelihood of project success and on-time delivery.

As resources are an essential investment for any company, one should manage them with utmost diligence. Therefore, the PMO needs to have an efficient resource management structure.

3 METHODOLOGICAL FRAMEWORK

3.1 Information Sources

3.1.1 Primary sources

Primary sources are records of events or evidence as they are first described or happened without any interpretation or commentary. It is any information which is shown for the first time or original materials on which other research is based. Primary sources display original thinking, report on new discoveries or share fresh information (*Primary, Secondary, and Tertiary Sources*, n.d.).

(*Seton Hall University Libraries: Primary Sources - an Introductory Guide: What Is a Primary Source?*, n.d.) also explains that primary sources may be transformed from the original format into a newer one, such as when materials are published or digitised, but the contents are still primary. Some examples of primary sources include dissertations, scholarly journal articles (research-based), conference proceedings, speeches, original artwork, letters, memos, interviews, diaries, some government reports and correspondence.

In this report, a combination of Government reports and memos, interviews, journal articles and conference proceedings were utilised. As this FGP is based on the Ministry of Infrastructure, it is only apt that the sources come directly from the organisation. Moreover, qualitative interviews allow the participants to share their opinions, desires, and attitudes towards the topic. It is expected that the interviews will play a critical role in information generation by allowing me to question underlying assumptions, existing theories and engage in theory generation.

3.1.2 Secondary sources

A secondary source presents an analysis or restatement of primary sources. They typically try to describe or explain primary sources, usually summarising, interpreting, reorganising or otherwise providing added value to the primary source (*Seton Hall University Libraries: Primary Sources - an Introductory Guide: What Is a Primary Source?*, n.d.).

Some examples of secondary sources are journal articles that comment on or analyse research, textbooks, edited works, and review research work.

The secondary sources utilised for this project include journal articles, textbooks, and review research work. Journal articles are often the most current and up-to-date sources of research information. For this project, current information is important, as the project management industry is frequently involved, and textbooks, notwithstanding their usefulness, have a longer publication cycle and may not capture the latest research development.

Table 1*Information sources*

Objectives	Information sources	
	Primary	Secondary
To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery.	Interviews with Chief Technical Officer, Permanent Secretary and Senior Project managers Government reports on Projects, Budgets etc	Review of research
To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.	Journal Article to collect original research PMMM _{SM}	Textbooks
To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.	Interviews with Chief Technical Officer, Permanent Secretary and Senior Project Managers	Textbooks, Journal article
To incorporate the PMO into the existing government structure through the standardisation of the Project Management framework and the utilisation of best practices.	Government reports on Projects, Budgets etc	Journal article, Textbooks
To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.	Interviews with Chief Technical Officer, Permanent Secretary and Senior Project managers	Journal Articles

3.1.3 Research methods

Research methods are the specific procedures or techniques used to identify, select, process and analyse information about a topic. In a research paper, the methodology allows the reader to critically evaluate the study's overall validity and reliability. The methodology answers two main questions i.e. How was the data collected or generated? Or how was it analysed?

Example:

3.2.1 Analytical method

Analytical research is a specific type of research that involves critical thinking skills and the evaluation of facts and information relative to the research being conducted

3.2.2 Deductive method

A deductive approach is concerned with developing a hypothesis based on existing theory and then designing a research strategy to test the hypothesis. The deductive research approach explores a known theory or phenomenon and tests if that theory is valid in given circumstances. It has been noted that “the deductive approach follows the path of logic most closely (*Deductive Approach (Deductive Reasoning)*, n.d.).

3.2.3 Applied method

Applied research addresses specific problems with the goal of finding practical solutions (*Applied Research Essentials: Types, Examples, and Writing Guide*, n.d.). Distinguishing it from

basic research, which primarily seeks to expand theoretical knowledge. It serves as a follow-up to basic or pure research, aiming to identify solutions to specific issues at individual, group, or societal levels. Applied research encompasses various types, each tailored to address specific challenges and practical issues in different domains.

Table 2*Research methods*

Objectives	Research methods		
	Analytical Research Method	Deductive Research Method	Applied Research Method
To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery.	This method was used for collection and analysing data to draw meaningful conclusions and make informed decisions.	This top-down approach starts with the hypothesis and uses logical reasoning to test validity through data collection and analysis, moving from general to specific.	This method will apply existing knowledge and methodologies to solve this issue focusing on actionable solutions.
To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.	This method was used for collecting and analysing data to draw meaningful conclusions and make informed decisions.	N/A	N/A
To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.	Explain how the corresponding research method was applied for this objective.	This top-down approach starts with the hypothesis and uses logical reasoning to test validity through data collection and analysis, moving from general to specific.	This method will apply existing knowledge and methodologies to solve this issue, focusing on actionable solutions.

Objectives	Research methods		
	Analytical Research Method	Deductive Research Method	Applied Research Method
To incorporate the PMO into the existing government structure through the standardisation of the Project Management framework and the utilisation of best practices.	This method was used for collecting and analysing data to draw meaningful conclusions and make informed decisions.	This top-down approach starts with the hypothesis and uses logical reasoning to test validity through data collection and analysis, moving from general to specific.	N/A
To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.	This method was used for collecting and analysing data to draw meaningful conclusions and make informed decisions.	N/A	This method will apply existing knowledge and methodologies to solve this issue, focusing on actionable solutions.

3.1.4 Tools

The tools and techniques are used to help execute a process. Some tools that can be used for this process are interviews, focus groups, questionnaires, surveys and decision-making.

According to Project Management Institute Inc. (2017), interviews are a formal or informal approach to elicit information from stakeholders by talking to them directly. It is typically performed by asking prepared and spontaneous questions and recording the responses. Interviews are often conducted between an interviewer and an interviewee but may involve multiple interviewers and/or multiple interviewees. Interviewing experienced project participants, sponsors, other executives, and subject matter experts can aid in identifying and defining the features and functions of the desired product deliverables. Interviews are also useful for obtaining confidential information.

Focus groups bring together prequalified stakeholders and subject matter experts to learn about their expectations and attitudes about a proposed product, service, or result. A trained moderator guides the group through an interactive discussion designed to be more conversational than a one-on-one interview.

Questionnaires and Surveys are written sets of questions designed to quickly accumulate information from a large number of respondents. Questionnaires and/or surveys are most appropriate with varied audiences, when a quick turnaround is needed, when respondents are geographically dispersed, and where statistical analysis could be appropriate.

Decision-making is used in this process to come to a decision that best serves the project. Lastly, Alternatives analysis is a data analysis tool that involves looking at a variety of ways to accomplish an activity (Project Management Institute Inc, 2017).

Table 3*Tools*

Objectives	Tools
To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery.	Interviews, questionnaires and surveys
To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.	Alternative Analysis
To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.	Alternative Analysis and decision making
To incorporate the PMO into the existing government structure through the standardisation of the Project Management framework and the utilisation of best practices.	Alternative analysis and decision-making
To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.	Focus group, alternative analysis and decision-making

3.1.5 Assumptions and constraints

(Usmani, 2024) defines an assumption as what is believed to be true without evidence. It refers to expected events or circumstances during the project lifecycle. They fill gaps in knowledge and help in forecasting and planning. Assumptions are made based on educated guesses, past experiences, industry standards, or logical deductions. They are necessary to move forward with planning when complete information is unavailable. Assumptions may not end up being true. They can sometimes be false and may negatively affect your project.

Project constraints are limitations on a project, such as the budget, schedule, or resources (Usmani, 2024). These are definitive factors that the project team must work around. Constraints define the project boundaries, set parameters, and help with realistic expectations. Because they are non-negotiable, the project plan must accommodate them from the outset. Understanding constraints helps prioritize tasks, allocate resources efficiently, and make trade-offs when necessary.

Table 4*Assumptions and constraints*

Objectives	Assumptions	Constraints
To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery.	<ul style="list-style-type: none"> • The Ministry is experiencing project inefficiencies, delays and cost overruns due to the lack of a project management office • The ministry does not have the capabilities to handle its projects and has a planned growth target that requires the development of a PMO 	<ul style="list-style-type: none"> • The management could be resistant to acknowledging the deficiency, there may be some pushback while trying to collect data through interviews for this research. • The Ministries are currently disjointed and there is a lack of coordination and significant miscommunication
To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.	<ul style="list-style-type: none"> • There is a lack of accountability and transparency in the Ministry, which weakens the project implementation ability and increases the risk of project failure or non-performance 	<ul style="list-style-type: none"> • The timeframe to execute the project is limited to 3 months; therefore it may not be sufficient to conduct this research • The availability of information
To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.	<ul style="list-style-type: none"> • The decision will have a heavy hierarchical, bureaucratic and political influence 	<ul style="list-style-type: none"> • There are no known performance metrics within the ministry to evaluate the success of projects other than substantial completeness • There may be resistance to adopting new Structures
To incorporate the PMO into the existing government structure through the standardisation of the Project	<ul style="list-style-type: none"> • Currently a system for project monitoring and standardised processes does not exist across various projects 	<ul style="list-style-type: none"> • The existing government structure does not allow for development of a PMO

Objectives	Assumptions	Constraints
Management framework and the utilisation of best practices.	<ul style="list-style-type: none"> The Ministry's Project Management framework lacks structure and is not standardized and requires alignment with industry best practices. The revision of policies and legislature may be required 	
To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.	<ul style="list-style-type: none"> The ministry does not have the capabilities to handle its projects and has a planned growth target that requires the development of a PMO Some additional financial, technical and human resources will be needed to successfully support the PMO 	<ul style="list-style-type: none"> The management could be resistant to acknowledging the deficiency, there may be some pushback while trying to collect data through interviews for this research

3.1.6 Deliverables

(Project Management Institute Inc, 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. Deliverables that are outputs from the Direct and Manage Project Work process are inspected and compared to the acceptance criteria defined in the project scope statement.

Table 5*Deliverables*

Objectives	Deliverables
To evaluate the existing deficiencies created because of the absence of a PMO	A study on the current situation at the Ministry with regard to the deficiencies, including cost overruns and delays. Stakeholder surveys and interviews, results and recommendations of priority areas for immediate corrective actions
Carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.	A Project management maturity model with scoring of the Ministry assessing the organisational needs. Additionally, a maturity map showing current levels compared to desired levels across the various knowledge areas. A study of the possible operational risks that can be caused by the maturity
To determine the most appropriate PMO Structure for the Ministry and develop key performance indicators to appraise the performance of the PMO.	A comparative analysis of the various PMO structures and assessment which indicates the most appropriate PMO for the Ministry and the Key performance indicators framework that accounts for project delivery, cost management and staff capacity improvement.
To develop a strategy to incorporate the PMO into the existing Government Structure through standardisation of the Project Management framework and utilisation of best practices.	An implementation road map to incorporate the PMO into the existing government structure. As well as an alignment strategy with existing government policies and interministerial processes
To identify the resources, training and capacity-building programs for the project team.	A training needs assessment for technical and non-technical staff as well as resources allocation plan detailing staffing requirements roles and responsibilities.

4 RESULTS

4.1 To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery

This objective sought to identify and assess the current situation at the Ministry with regard to its project management deficiencies and operational gaps that have developed due to the absence of a centralised project management office. It was also used to examine the existing performance challenges, coordination issues and inefficiencies that impact the successful delivery of infrastructure projects.

A questionnaire, which consisted of twenty-three questions, was distributed to a total of nineteen employees of the Ministry. The sample group was diverse in that it not only consisted of persons having direct project experience but also those who provided clerical or accounting support to the department. Respondents were mainly male as the Ministry is male-dominant, and they also were not required to share their identity to encourage honest and unbiased information due to fear of victimisation.

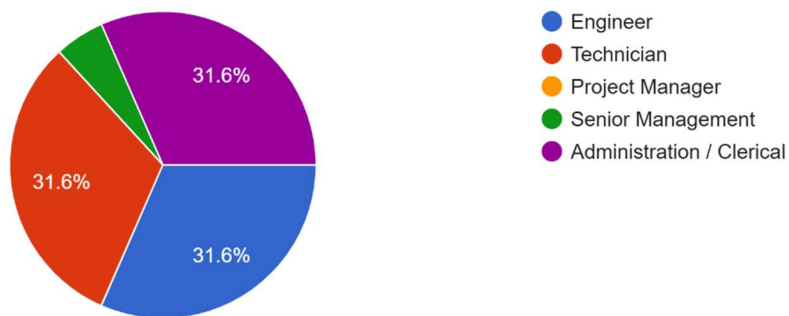
The first question was what your current role in the Ministry is; from this, it was found that 31.6% of the respondents were Engineers. 31.6% were Technicians, 31.6% were administrative clerks, and 5.3% were senior management. This information is necessary to understand the value of a PMO to the entire Ministry, as compared to only having all 7 respondents within the same roles, which can lead to biased results. Figure 7 represents the data collected on the roles of the respondents.

Figure 7

Showing the current roles of respondents (Source: Author)

What is your current role within the Ministry?

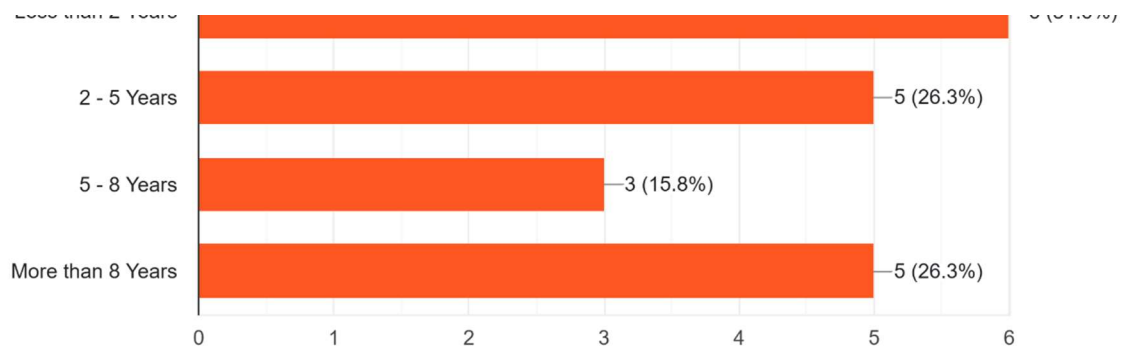
19 responses



The questionnaire also highlighted that most of the respondents have been employed with the Ministry for less than 2 years, as can be seen below. One of the key considerations for successful project implementation is the possibility of project continuity. Disaggregated

Figure 8

Showing years of employment from respondents (Source: Author)



responses by years of employment can often demonstrate the correlation between project success and frequent staff turnover.

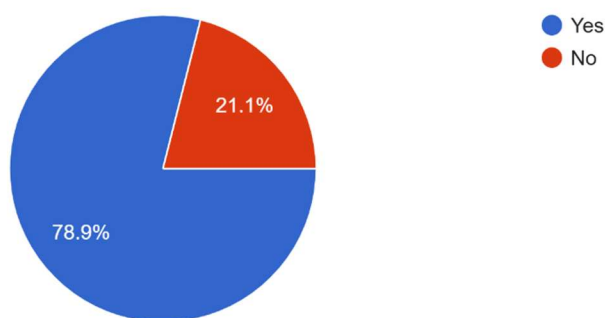
The questionnaire also provided an opportunity to determine how many participants were familiar with the term 'Project Management Office's, which also gave insight into the level of awareness and understanding of this concept. It was found that 78.9% of the participants are familiar with this term, and only 21.1% were not. This is a positive result in that it shows there is a good outlook for the implementation of a project management office. The results are presented below.

Figure 9

Respondents' familiarity with the PMO (Source: Author)

Are you familiar with the term ' Project Management Office'?

19 responses



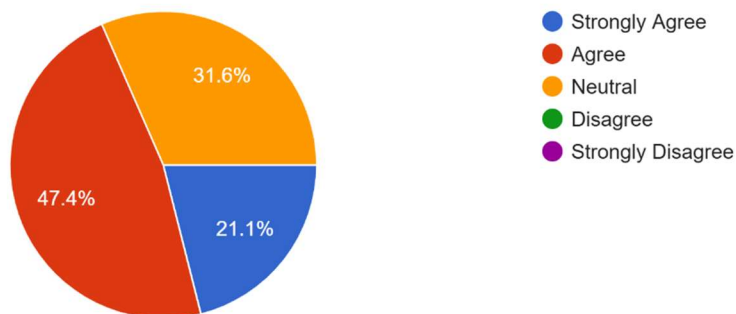
The participants were also asked whether they believe the Ministry's project always experiences cost overruns and time overruns. Most respondents agree that the project always experiences time and cost overruns, as can be seen in Figure 10.

Figure 10

Respondents' opinions on the occurrence of cost overruns (Source: Author)

Projects in the Ministry always experience cost overruns.

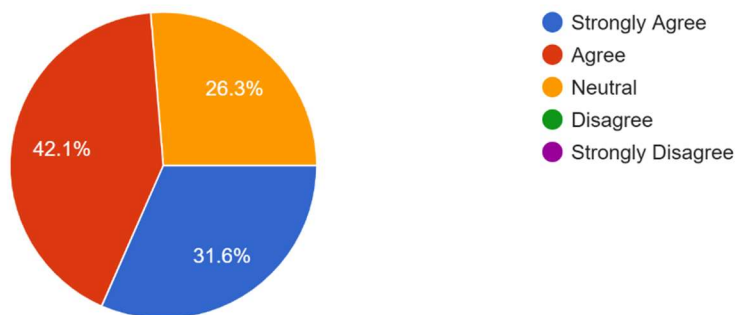
19 responses

**Figure 11**

Respondents' opinions on the occurrence of time overruns (Source: Author)

Projects in the Ministry always experience time overruns.

19 responses



As it relates to the participants' opinion on the primary causes of delays and cost overruns, they were given six possibilities, which included poor resource allocation, lack of a centralised project unit, poor project planning and supervision, lack of standardised processes,

inadequate risk management, as well as insufficient reporting and monitoring. From Figure 12, it can be deduced that the primary cause of delays and cost overruns is poor project planning and supervision, according to 52.6% of the participants. Lack of a centralised project unit was second, with 42.1% of respondents selecting this option.

Figure 12

Causes of time and cost overruns (Source: Author)

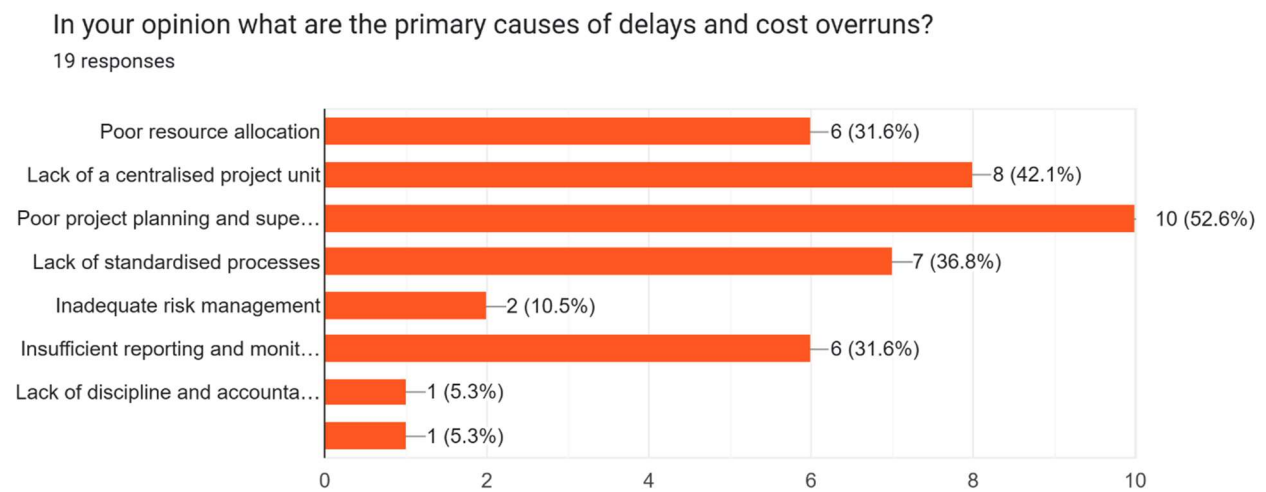
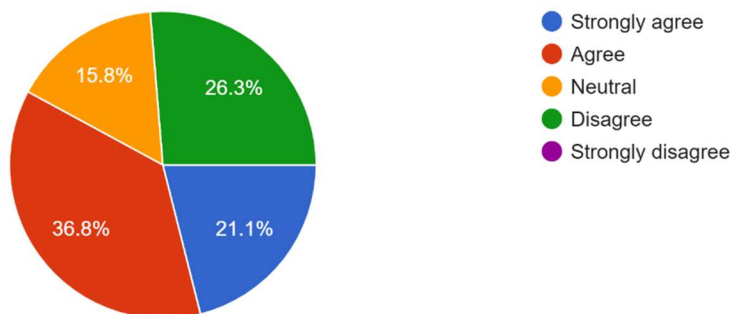


Figure 13 depicts the number of respondents who agree that the absence of a centralized PMO can negatively impact project success, most of whom agree.

Figure 13

Respondents' opinion on the negative impacts of the absence of a centralised PMO (Source: Author)

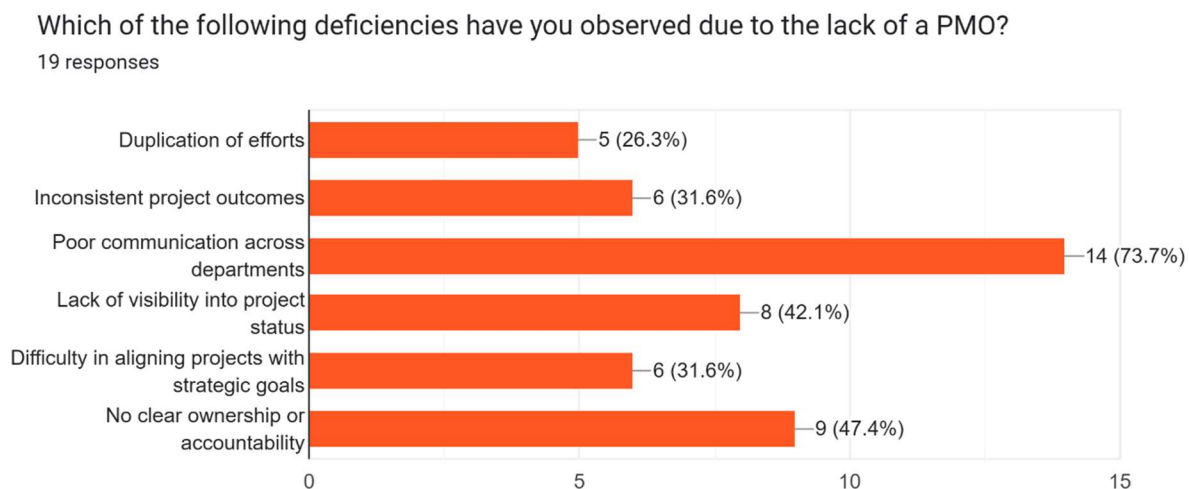
Do you agree that the absence of a centralized PMO has negatively impacted project success?
19 responses



To gain an understanding of the deficiencies, participants believe are attributable to a lack of a PMO, this can be used to tailor the PMO to the needs of the Ministry as well as create a baseline to monitor improvements. It can be seen in Figure 14, however, that most respondents believe that poor communication across departments is the biggest deficiency that arises because of the lack of a PMO.

Figure 14

Deficiencies due to a lack of a PMO (Source: Author)

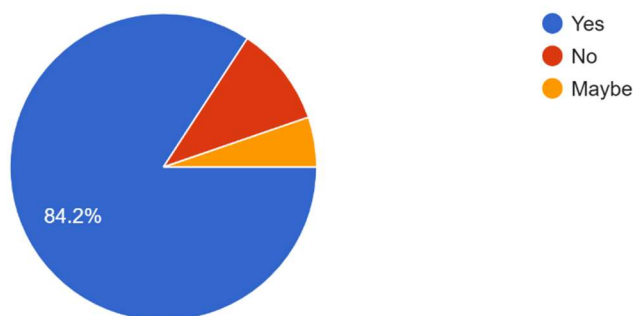


A critical question was whether the participants thought the Ministry would benefit from the establishment of a PMO, and as predicted, 84.2% of participants agreed that it would. A further assessment of the 10% of persons who disagreed was conducted, it was found that they are a part of the group that were employed for more than eight years with the Ministry and are employed as either Administrative/clerical support or as a functional manager. Moreover, the same participants are also unfamiliar with the concept of the project management office. The results are detailed in Figure 15.

Figure 15

Responses to the benefit of establishing a PMO (Source: Author)

In your opinion do you believe the Ministry would benefit from establishing a PMO
19 responses

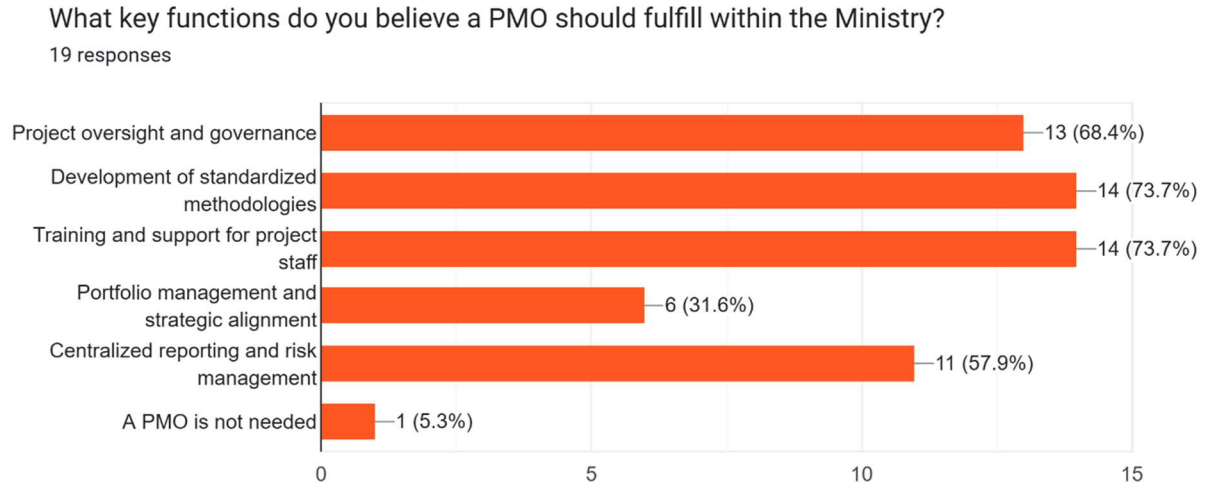


These results can be due to the fact that longer tenured staff may be comfortable with existing informal systems and are fearful that there could be a loss of influence or control. This correlation is seen as negative as the existing culture is not change-oriented.

When asked about the key functions the PMO should fulfil within the Ministry, the results were contrary to initial expectations, revealing that fewer participants want the PMO to provide project oversight and governance, while 73.7% preferred the option of development of standardised methodologies and Training and support for project staff. It is likely, as previously mentioned, that the staff anticipate that the PMO will limit their decision-making and authority and general resistance to change. Figure 16 reflects the distribution of the participants' responses.

Figure 16

Key functions the PMO should fulfil (Source: Author)



The data collected to study this objective clearly demonstrated that the absence of a centralised PMO has contributed to the inefficiencies with project delivery, the findings suggest that there is strong support for the establishment of the PMO, especially from the younger and more recently hired staff. These participants see the value in standardised methodologies, training and structured support.

4.2 To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.

To assess this objective, the Project Management Solution Project Management Maturity Model (PMMM_{sm}) was utilised, which involved reviewing data from various articles and then interviewing five members of staff who perform as project managers within the Ministry.

The selection of the PMMM_{sm} method was based on its alignment with the PMBoK and the ease with which it can be used to evaluate the current maturity of the Ministry. (Nikolaenko & Sidorov, 2023) explains that the concept intends to gradually transition from “immature” management in knowledge areas to “mature” management, divided into five levels they are:

Level 1: Initial Process—There are no established standards in project management. Project documents are drawn up freely and one-time only. Measuring the effectiveness and efficiency of design work is carried out spontaneously. Each member of the project team can define the concept of “project”, but these definitions will not coincide with each other.

Level 2. Structured Process and Standards—management is based on the best practices, but they are not fixed at the level of organisational standards. The management of the organisation supports the development of project management but does not provide consistent and systematic work in this regard. There are no people responsible for improvements. Metrics have been developed to track project cost, schedule and labour productivity, but the data is collected and processed manually.

Level 3. Organisational Standards and Institutionalised Process—all project processes are anchored in the internal standards of the organisation. Clients and end users are active and

integral members of the project team. All projects use the same management standards. The organisation's management regularly reviews proposals to improve internal standards.

Level 4. Managed Process—project management is based on past experience and lessons learned. Project information is integrated with the organisation's corporate systems. The management of the organisation is clearly aware of its role in the field of project management. Internal standards are differentiated by types, sizes and complexity of projects.

Level 5. Optimising Process—project management activities are continuously improving. Experience is drawn from each new situation and used to improve project management processes, standards and project documentation.

The following Table 6 represents the responses of the persons who may function in project management roles within the Ministry. The Projects which they manage vary in complexity as well as sponsors, which would affect their responses, in that donor-funded projects were observed to have stricter procedures as compared to locally funded projects. The table below delineates the information of each respondent.

Table 6

Experience of respondents

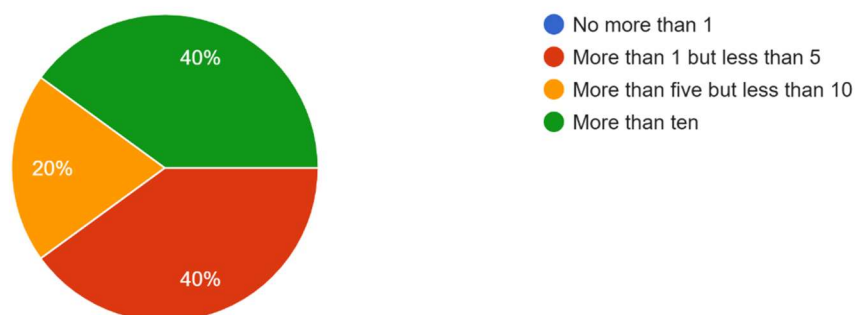
	PM1	PM2	PM3	PM4	PM5
How many projects do you manage at a time?	More than 1 but less than 5	More than 1 but less than 5	More than 10	More than 10	More than 5 but less than 10
What is the typical Magnitude and Complexity of your project?	Small to Medium size	Small to Medium size	All of the above	All of the above	Medium to Large size
Who is the funding agency of your project	Local / Government of Grenada	Local / Government of Grenada	All of the above	All of the above	All of the above

It was necessary to present the experience of the project managers participating in this chapter's data collection, as project managers who have been exposed to large-scale projects are more likely to be experienced with project methodologies, stakeholders and challenges, allowing them to identify and treat systemic frailty as well as have a clearer understanding of the Ministry's maturity level across the knowledge areas. Figure 17 presents the distribution of project managers and the number of projects they manage at any given time. The responses were mainly in the categories of fewer than five projects and more than ten projects; both achieved 40% of responses. Essentially, all respondents must oversee multiple projects simultaneously, which is important to note, as it can impact the project resource management knowledge area.

Figure 17

Number of project respondents have managed (Source: Author)

How many projects do you manage at a time?
5 responses



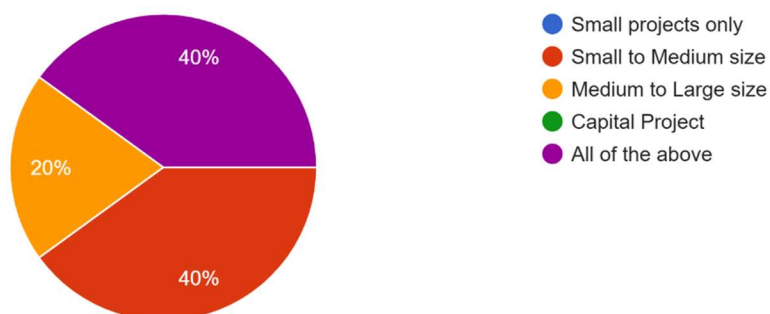
Additionally, project managers who oversee larger, complex projects tend to develop a deeper awareness of maturity gaps within the department. As mentioned, these projects require rigorous planning, monitoring and reporting, which align with international best practices.

Conversely, based on previous responses, these practices can clash with the ad-hoc methods adopted in the department. The results of Figure 18 present the distribution of projects of various scales, and it is evident that none of the participants manage only small projects, 40% manage a mix of all project complexities, another 40% manage a combination of small and medium sized projects, and the remaining 20% of participants manage medium to large-sized projects.

Figure 18

Magnitude and Complexity of respondents' projects (Source: Author)

What is the typical Magnitude and Complexity of your project?
5 responses



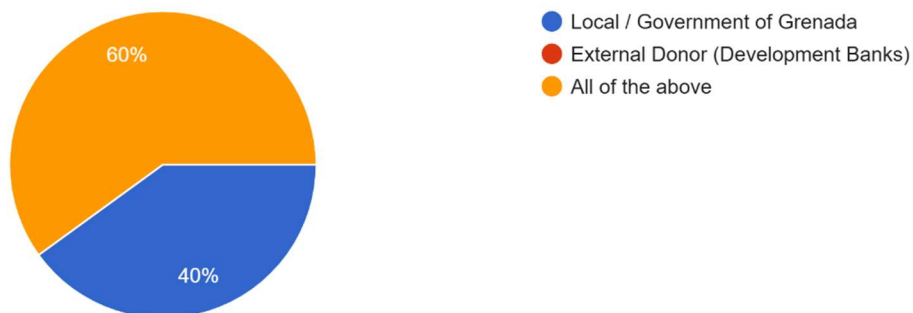
Likewise, Figure 19 shows the source of funding of the project managed by the participants. This information is useful as projects that are funded by external donors usually have stricter guidelines, which heighten the project manager's knowledge of structured project processes and methodologies. The results show that the vast majority have experience with both local and donor-funded projects.

Figure 19

Source of funding for the respective projects (Source: Author)

Who is the the funding agency of your project

5 responses

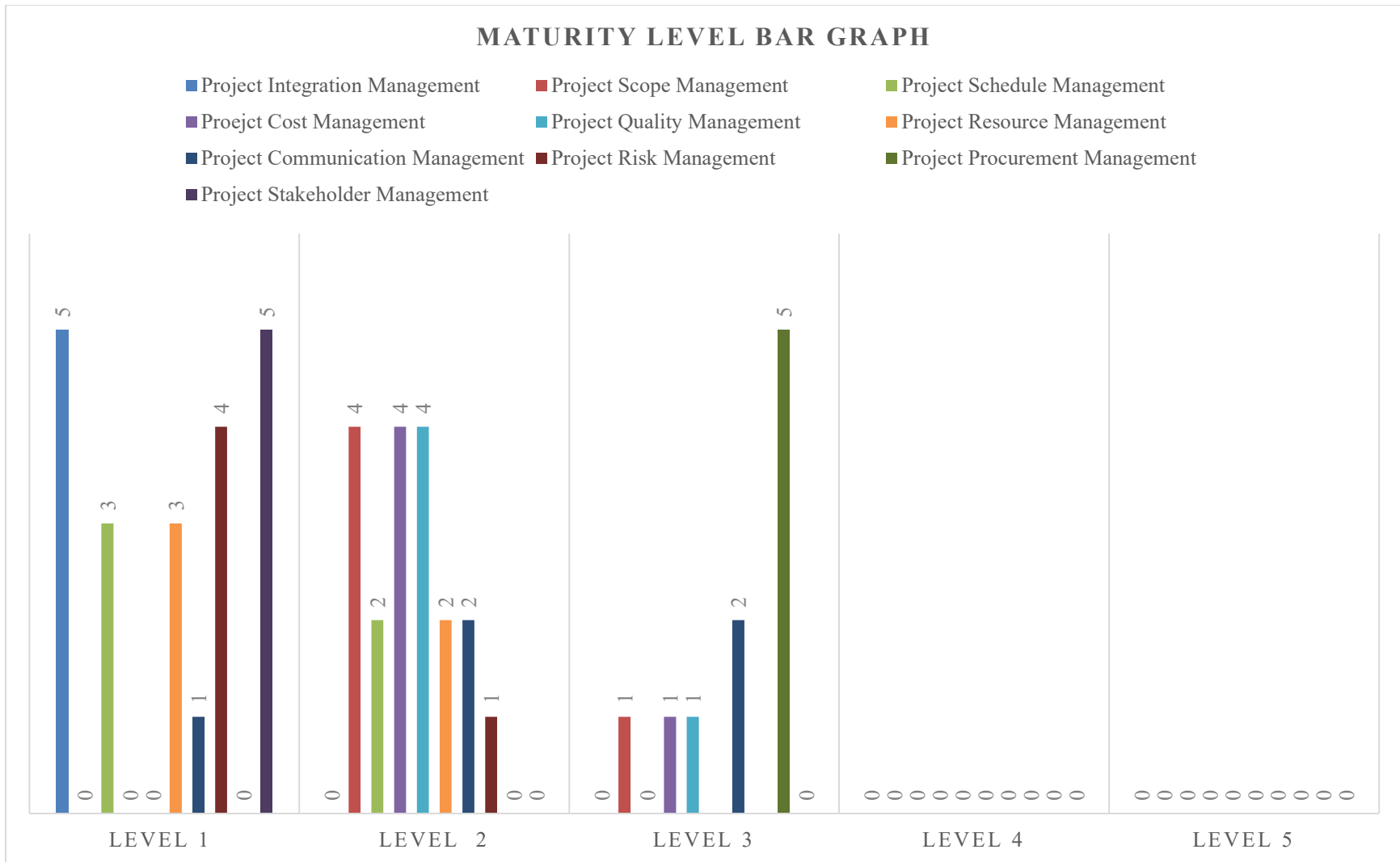


As discussed previously, the maturity model assesses the organisation's ability to manage projects; in this case, it will be assessed across the various knowledge areas

The information gathered from this survey was used to develop a maturity map, which displays each Project manager's opinion on the maturity level of the Ministry. This can be seen in Figure 20; it is understood that the closer the graphs are to the outer edge, the greater the maturity of the Ministry. It can be seen that none of the Project Managers have stated that any of the knowledge areas have exceeded the level 3 maturity.

Figure 21

Maturity Level Bar Graph (Source: Author)



As it relates to Project Integration Management, it includes all activities and processes to identify, define, combine and coordinate the various processes and project management activities. From the survey, 100% of the Project Managers have stated that it is at a Level 1, which means that no established practices, standards, or Project Office work is performed in an ad hoc fashion. The risk associated with this is that projects can operate in silos, which will result in duplication of efforts.

Project Scope Management showed some variety with responses, where 80% stated that it was a Level 2, which means that basic scope management processes are in place. Scope management techniques are regularly applied to larger, more visible projects. Additionally, the remaining 20% were of the opinion that it was a Level 3, suggesting that full project management processes are documented and utilised by most projects. Stakeholders actively participating in scope decisions. Based on these results, it can be deduced that the scope management is mostly adopted on large projects; however, smaller and equally important projects are at risk of scope creep.

With regards to Project Schedule Management, 60% of the participants chose a Level 1 for this knowledge area, meaning that no established planning or scheduling standards are in place, a lack of documentation makes it difficult to achieve repeatable project success. The remaining 40% chose Level 2, suggesting basic processes are in place but are not required for planning. At Level 1 maturity, it makes it difficult to forecast project completion, resulting in frequent delays, clashing of resources, and these risks can lead to donor and stakeholder dissatisfaction.

Project Cost Management also displays some variety with regard to the responses; 80% of respondents believed that this knowledge area is at a Level 2, and 20% are of the view that it

is at a Level 3. Cost management at a level 2 means that processes exist for cost estimating, reporting, and performance measurement. Cost management processes are used for large, visible projects. Moreover, Level 3 means that cost processes are organisational standards and utilised by most projects, and costs are fully integrated into the project office resource library. At a maturity Level of 2, smaller projects can still be at risk of accumulated unnoticed overruns.

The Project Quality Management knowledge area shared a similar distribution of responses, where 80% were of the opinion that it is at a Level 2, and 20% believe that it is at a Level 3. Likewise, the probability exists that smaller projects will fall victim to long term maintenance costs as a result of inconsistent quality assurance.

With regards to the Project Resource Management, 60% of the participants have stated that it is at a Level 1, which implies that no repeatable processes are applied to planning and staffing projects, and the project teams are *ad hoc*; moreover, human resource time and cost are not measured. The remaining 40% stated that this knowledge area is at Level 2, meaning that repeatable processes are in place that define how to plan and manage the human resources. Resources are tracked for obvious projects only. The risks that can develop at these levels include no institutional knowledge retention when teams are formed on an ad hoc basis, skills gaps can develop when there is a high turnover and a lack of structure in staffing.

Responses to the Project Communication Management knowledge area varied, with 40% of the participants selecting Level 2, another 40% selecting Level 3, and the remaining 20% stating that it is at Level 1. It was observed that project managers who managed donor-funded projects are within the 40% who believe this knowledge area is at a Level 3. Similarly, the participant who selected Level 1 mainly manages fewer than five locally funded projects at a time. Notwithstanding the participants who claim this knowledge area is at a level greater than 2, the

possibility does exist for the occurrence of poor stakeholder engagement, lack of transparency and misinformation. Additionally, inconsistent communication standards may lead to discord amongst staff.

As it relates to Project Risk Management, 80% of the respondents selected Level 1 for this knowledge area. This means that there are no established practices or standards in place. Documentation is minimal, and results are not shared; moreover, risk response is reactive. Additionally, all participants agreed that the Procurement management of the Ministry is at a Level 3, which suggests that processes and organisational standards are used for most projects. The project team and the purchasing department are also integrated in the procurement process.

Lastly, all participants agreed that the Stakeholder management is at Level 1 because an ad hoc stakeholder management process is in place, whereby projects manage stakeholders informally. Informal stakeholder engagement allows for risks of public dissatisfaction, project opposition, or failure to address needs.

The table below shows each participant's response for each knowledge area and the average maturity level of the Ministry, which was calculated to be 1.74, which falls between Level 2 and Level 3.

Table 7

Maturity level of the knowledge areas by each Project Manager

	PM1	PM2	PM3	PM4	PM5	Average Level
Project Management Integration	1	1	1	1	1	1

	PM1	PM2	PM3	PM4	PM5	Average Level
Project Scope Management	2	2	3	2	2	2.2
Project Management Schedule	1	1	2	2	1	1.4
Project Cost Management	2	2	3	2	2	2.2
Project Management Quality	2	2	3	2	2	2.2
Project Management Resource	1	1	2	2	1	1.4
Project Management Communication	2	1	2	3	3	2.2
Project Risk Management	1	1	1	2	1	1.2
Project Management Procurement	3	3	3	3	3	3
Project Management Stakeholder	1	1	1	1	1	1
						1.78

4.3 To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.

The interviewee for this objective was the Chief Technical Officer (CTO), who holds the most senior technical role within the department, serving as an advisor to the permanent secretary on several fronts, such as engineering, contract management, project management, and resource management. Because of these responsibilities, it was fitting for him to provide feedback to better determine the most appropriate PMO structure for the Ministry.

The CTO was asked a total of eight open-ended questions; however, one of the limitations was that he had been in the role for less than two years. When asked about the challenges he observed overseeing projects within the Ministry, he highlighted that projects frequently go over budget and often require extension of time. He indicated that it could be due to a lack of proper studies being carried out in the inception stages of projects, there is sometimes an unpreparedness to deal with fluctuations in the Market locally and internationally; moreover, because of the demands to roll out projects, staff are often placed in roles which they lack adequate expertise or formal training in project management.

As it relates to existing project management practices, it was discovered that no formal framework exists for project management, as documentation formats vary, approval workflow, as well as planning and tracking systems, are not always consistent across projects. The result is a fragmented approach, where lessons learned are not captured for application to others. When asked about the existing policies or regulations that might support or hinder the establishment of a PMO, he could only speak to the current lengthy interministerial processes that could impede

the PMO's drive for efficiency. Additionally, the rigidity that could come with less progressive managers can limit flexibility in engaging experienced project managers.

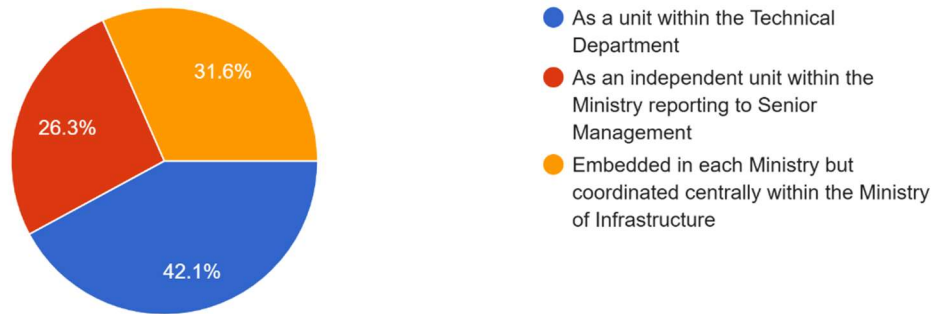
As it relates to the available technology or systems used to implement projects successfully, the Ministry mainly uses the Microsoft Suite; however, he advised that a system that allowed project managers to track project schedules, budget, expenditure, risks and issues, contract performance, as well as the storage of documents would be ideal for the Ministry.

To determine the most appropriate project management office, the questionnaire was tailored to ascertain the staff's view of the system and how it should function within the Ministry. As mentioned earlier, the respondents varied from engineers, technicians, administrative staff and functional managers; they were asked whether the PMO should be structured within the Ministry and the majority have selected that it should be placed in the Ministry's Technical department, as compared to the PMO being an independent unit within the Ministry reporting to Senior Management as can be seen in Figure 22

Figure 22

Respondents' opinion on the positioning of the PMO within the Ministry (Source: Author)

How should the PMO be positioned within the Ministry's organizational structure?
19 responses

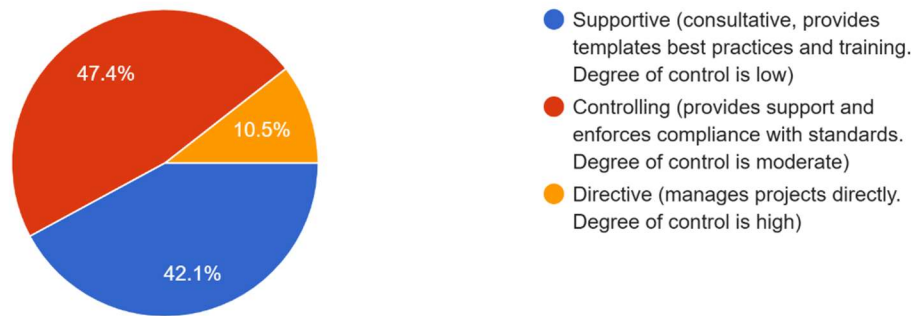


They are also of the view that the PMO structure that best suits the Ministry is the controlling PMO, where the degree of control is moderate, through this project management frameworks or methodologies were adopted, compliance will also involve the use of specific templates, forms, and tools, as well as conformance to the Government framework. The figures show the distribution of responses.

Figure 23

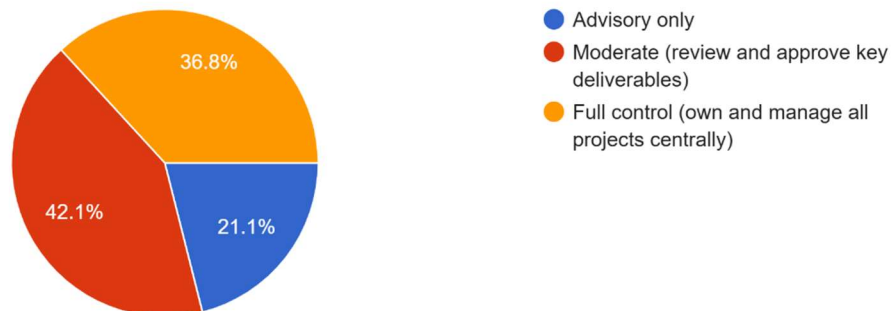
The type of PMO respondents believe should be adopted (Source: Author)

In your view, which PMO structure would best suit the Ministry of Infrastructure?
19 responses

**Figure 24**

The level of authority of the PMO suggested by the participants (Source: Author)

What level of authority should the PMO have over projects in the Ministry?
19 responses

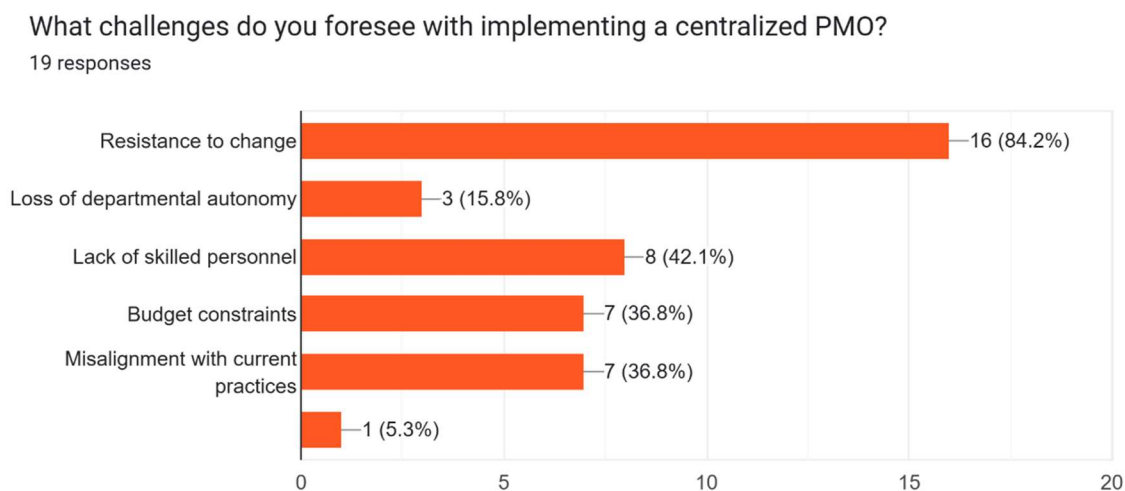


With a directive PMO structure, authority may be stripped from functional and project managers, which can also cause resistance, and staff can become reluctant to collaborate. The

controlling PMO should be designed to provide more control by facilitating compliance. According to Tumi (2020), a key reason for PMO failure is the lack of alignment with the organisation's strategic objectives. He has also highlighted that organisations have to deal with various universal challenges when implementing strategic PMOs, for instance, they experience resistance to changes, where the staff view the PMO as a bureaucratic structure that increases overhead costs. Figure 26 supports Tumi's claim, as participants would have highlighted that resistance to change would be the most significant challenge with implementing a centralised PMO.

Figure 25

Challenges with implementing a PMO (Source: Author)

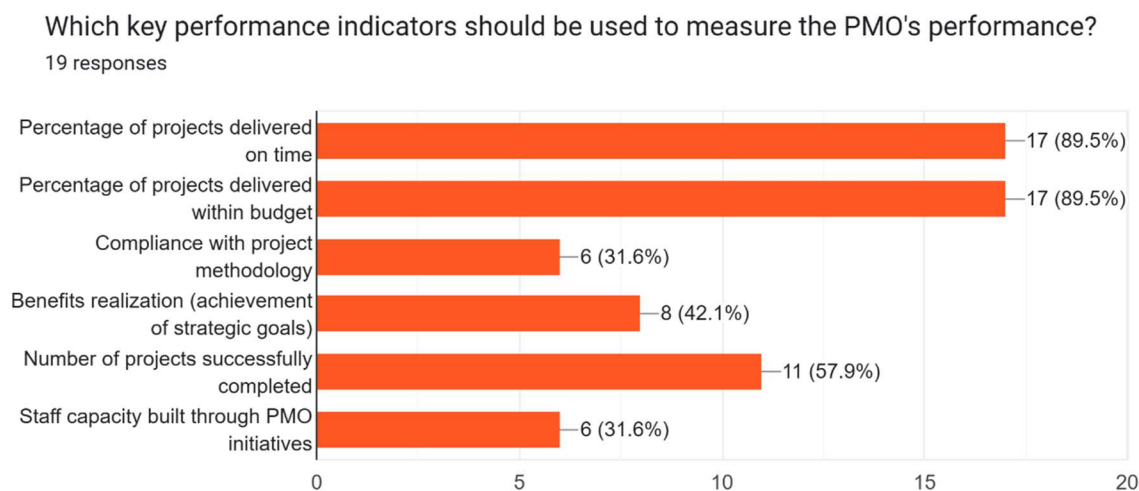


The main goal, based on the responses provided in both the interview and questionnaire, shall be to adopt a project management framework or approaches that are tailored to be easily implemented in the Ministry. To evaluate the effectiveness of the PMO, participants were asked to select the key performance indicators which is most applicable. The highest-ranked indicators

were the percentage of projects delivered on time, 89.5%, the percentage of projects delivered within budget, 89.5% and the number of projects successfully delivered, 57.9% followed by the benefit realised at 42.1%. Top-ranked KPIs align with globally recognised measures of project success, as delivering projects on time and within budget are considered the most critical metrics in project management.

Figure 26

Key Performance Indicators (Source: Author)

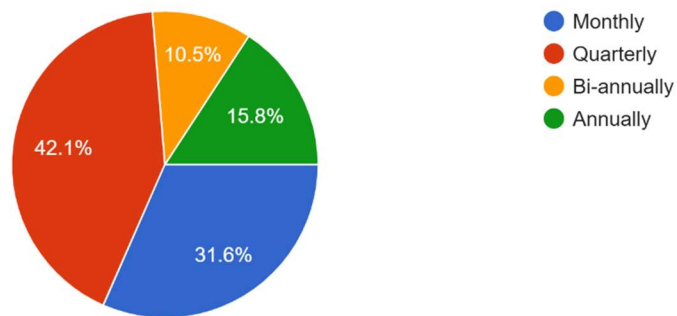


Participants were also asked how frequently the PMO's performance should be reviewed, and 42.1% recommended quarterly, as can be seen in Figure 27. This is frequent enough to update lessons learned, and it can also allow enough time to see results when adjustments are made. The significance of these findings lies mainly in establishing a balance between accountability and practicality. Considering that 42.1% of participants recommend quarterly reporting, it suggests that they have acknowledged the importance of consistent oversight, without overwhelming the system with excessive reporting. It will also ensure that the PMO can be adaptable, allowing for continuous improvement and alignment with changing priorities.

Figure 27

Frequency of PMO performance review (Source: Author)

How frequently should PMO performance be reviewed?
19 responses



To summarise, the data collected from staff offered useful insight into the most suitable PMO structure for the Ministry. The majority of the staff support the establishment of a controlling PMO, due to its ability to offer balance so as to avoid resistance likely to come about from a directive structure.

4.4 To incorporate the PMO into the existing government structure through the standardisation of the Project Management framework and the utilisation of best practices.

4.4.1. Current Assessment

The Ministry of Infrastructure currently utilises a functional organisational structure, whereby all staff report to a functional manager. This system has proven to be ineffective in achieving desired project outcomes and does not allow for integration with the other departments and Ministries. To remedy this, the development of a PMO within the Ministry is crucial.

The Ministry has a diverse cohort of technical and administrative personnel; however, the misalignment of roles and responsibilities has contributed to inefficiencies and redundancies. Figure 1. Represents the current organisational structure, which shows all technical staff reporting to a functional manager; however, there are always instances of dual reporting where other functional managers unnecessarily become involved in the coordination of projects.

Over one thousand projects are commenced annually, categorised by their value. Small projects are those that cost less than USD 200,000.00, and large projects are those whose value exceeds USD \$ 200,000.00. Additionally, there are projects which are considered capital projects because they are usually long-term projects that significantly contribute to the country's assets and nation-building. Most capital projects are donor-funded and require significant oversight; this information is critical, especially as it relates to resource allocation.

Notwithstanding the number of projects started annually, the implementation rate suffers at 26.3% (Ministry of Finance, 2023). Projects are the basic building blocks of development, and

without proper identification, preparation and implementation, development plans are no more than wishes, resulting in stagnation or regression of nations (Rondinelli, 1976).

Based on the questionnaire “Evaluation of the Need for a Project Management Office within the Ministry of Infrastructure”. None of those respondents is engaged as a Project Manager, nor have they received any formal project management training. Outside of these respondents, at the time of the issuance of the questionnaire, the Ministry had only one Engineer with formal project management training. Additionally, from the questionnaire “Ministry of Infrastructure Maturity Assessment”, the respondents have indicated that they managed multiple projects at a time, varying in magnitude and complexity.

It is important to note that all the project managers and supervisors have been employed for less than five years with the Ministry, indicating frequent staff turnover. These staff members have also agreed that the department could benefit from training and support for project staff, and all have stated that, based on their understanding of the project management office, they will support its constitution. The type of PMO best suited for the Ministry, which would allow for easy integration into the current Government structure, was found to be the Controlling PMO, which would provide support and enforce compliance with project management standards.

Introduction of a controlling PMO will prevent functional managers from being overruled, as would be the case if a directive PMO were adopted; this will undoubtedly strengthen the organisation and its ability to manage projects and resources. Moreover, the structure of the Ministry aligns with standards and policies set by the Government of Grenada, which other Ministries adhere to; the controlling PMO will allow for improved project management without the need to reconstruct the set policies and framework.

4.4.2. Future State Vision

4.4.2.1. Functions of the Project Management Office

The PMO will be strategically designed to address the existing weaknesses and build future capacity. It will serve the function of standardisation of methodologies, templates and project planning, implementation and reporting. The inconsistencies across projects will be resolved once a baseline is created for all projects, regardless of the donor. This consistency will allow tracking of project performance using the same metrics, increasing transparency, and facilitating accountability.

Based on the maturity model, schedule management is essentially ad hoc. The PMO will support the adoption of systems for project scheduling and risk management inclusive of dedicated scheduling tools, such as Microsoft Projects, making it less challenging to compare project timelines. The PMO will develop robust monitoring systems to evaluate project performance as it relates to cost, scope and quality. Another crucial function is capacity building and knowledge management to reduce the number of untrained project managers and reliance on external consultants. Lastly, the implementation of a central coordination point for all project related activities.

4.4.2.2. Expected Results

1. Improved Transparency and accountability across projects increased project ownership
2. Reduced project delays and cost overruns
3. Standardise the processes to develop and execute projects

4. Measurable increase in project management maturity to a Level between 3 and 5
5. Increased number of staff trained and improved retention of staff

4.4.3. Implementation Strategy

4.4.3.1. Scope of the Project Management Office

1. Developing and enforcing a consolidated project management framework due to the existing fragmented approaches across the various Ministries. This will ensure that all projects are initiated, planned, executed and monitored according to a structured model
2. Managing shared resources across all projects administered by the PMO. Providing oversight by maintaining a centralised view of all ongoing projects, identifying resource congestions as well as ensuring that the budgetary allocations are aligned with the priority projects. Additionally, the PMO can also suggest outsourcing resources where internal capacity is insufficient.
3. Identifying and developing project management methodologies, best practices, and standards.
4. Considering that staff lack formal project management training, the PMO's role will coordinate structured training workshops and conferences. Additionally, Mentorship and peer learning programs will encourage knowledge-sharing.
5. Monitoring adherence to project management standards, policies, procedures, and templates through project audits.
6. Developing and managing project policies, procedures, templates, and other shared documentation (organisational process assets); and

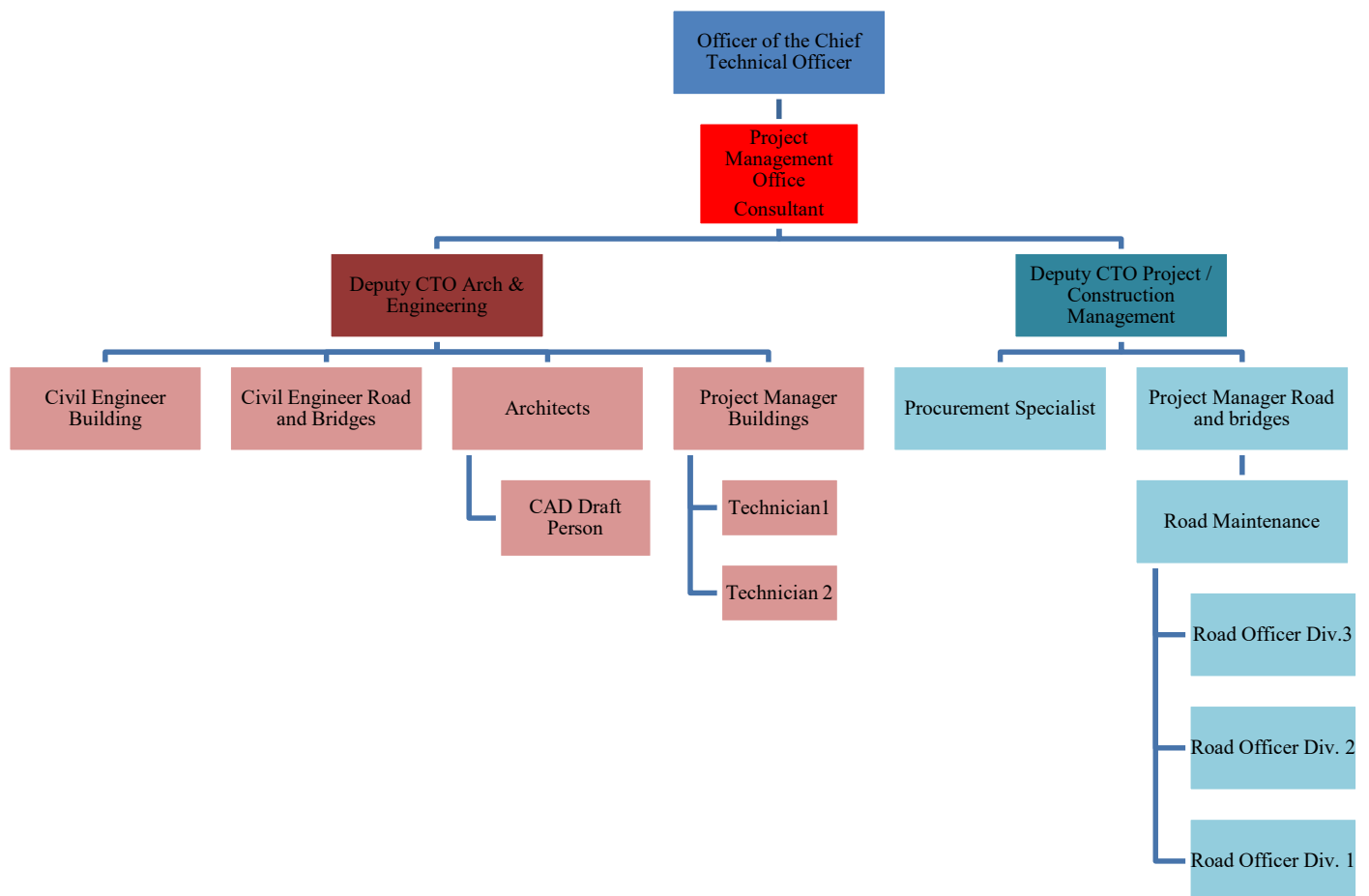
7. Coordinating communication between projects across the various departments and Ministries. The PMO acts as a coordinating body to direct inter-ministerial projects, a central point of contact, will reduce fragmentation to ensure interdependent projects are managed cohesively.

4.4.3.2. PMO Development Responsibility

The current capabilities described earlier suggest that there are limitations to the development of the PMO. Noting that none of the current staff have prior PMO experience, it would be worthwhile to use an external consultant in the developmental stage as well as during training and mentorship. The organisational structure should take the following format.

Figure 28

Proposed PMO organisational structure (Source: Author)

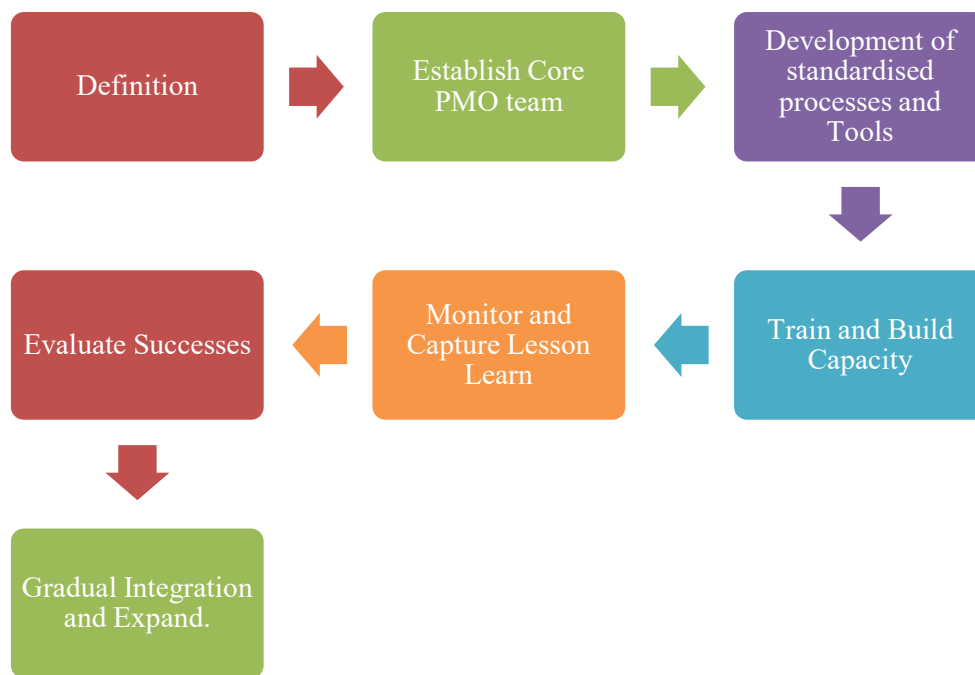


4.4.3.3 Method of Introduction

The PMO can be rolled out through a pilot program to gain early knowledge of rollout issues and revisions to methodologies, as seen in figure 29 below and a schedule with timeline of activities can be seen in figures 30 and 31

Figure 29

Process flow to roll-out implementation (Source: Author)



1. Definition - Goals and objectives of the PMO should be clearly defined, it should contain qualitative and quantitative aspirations for the PMO. Define the projects to form part of the pilot, ensure that these are high visibility projects that are manageable to see measurable results

2. Establish, structure and core PMO team - The structure and characteristics of the PMO should be established along with the organisational structure. The team should comprise a project manager and technical staff seconded from within the Ministry.
3. Development of standardised processes and tools – A project management framework will be used to provide a consistent project management approach. It will include templates, processes, checklists and guidelines. It is to be used to provide an efficient project management environment. Tools such as project charter, standard reporting dashboards e.g. schedule cost and risks and document management systems for storing contracts, designs, and approvals.
4. Train and Build Capacity – The training is geared towards providing awareness of approaches to project planning and key processes such as scope management, issue resolution, project communication and status reporting. The training can be performed in parallel to establishing the project management or launching the PMO pilot.
5. Launch project, monitor and capture lessons learn – This will provide an opportunity to experience the new processes and frameworks as well as adjust as necessary based on lessons learned.
6. Evaluate Successes – The PMO should be evaluated on a regular basis to assess the value it provides to the Ministry and for any modifications that can be made to increase its effectiveness. The evaluation should include an analysis of data collected from the projects and help the PMO to mature.
7. Gradual Integration and Expand – The PMO should be formalised as a controlling PMO with authority over projects standards and training. The team should be scaled, reporting mechanisms refined and advanced project management software should be introduced.

Figure 30

PMO Introduction Schedule (Source: Author)

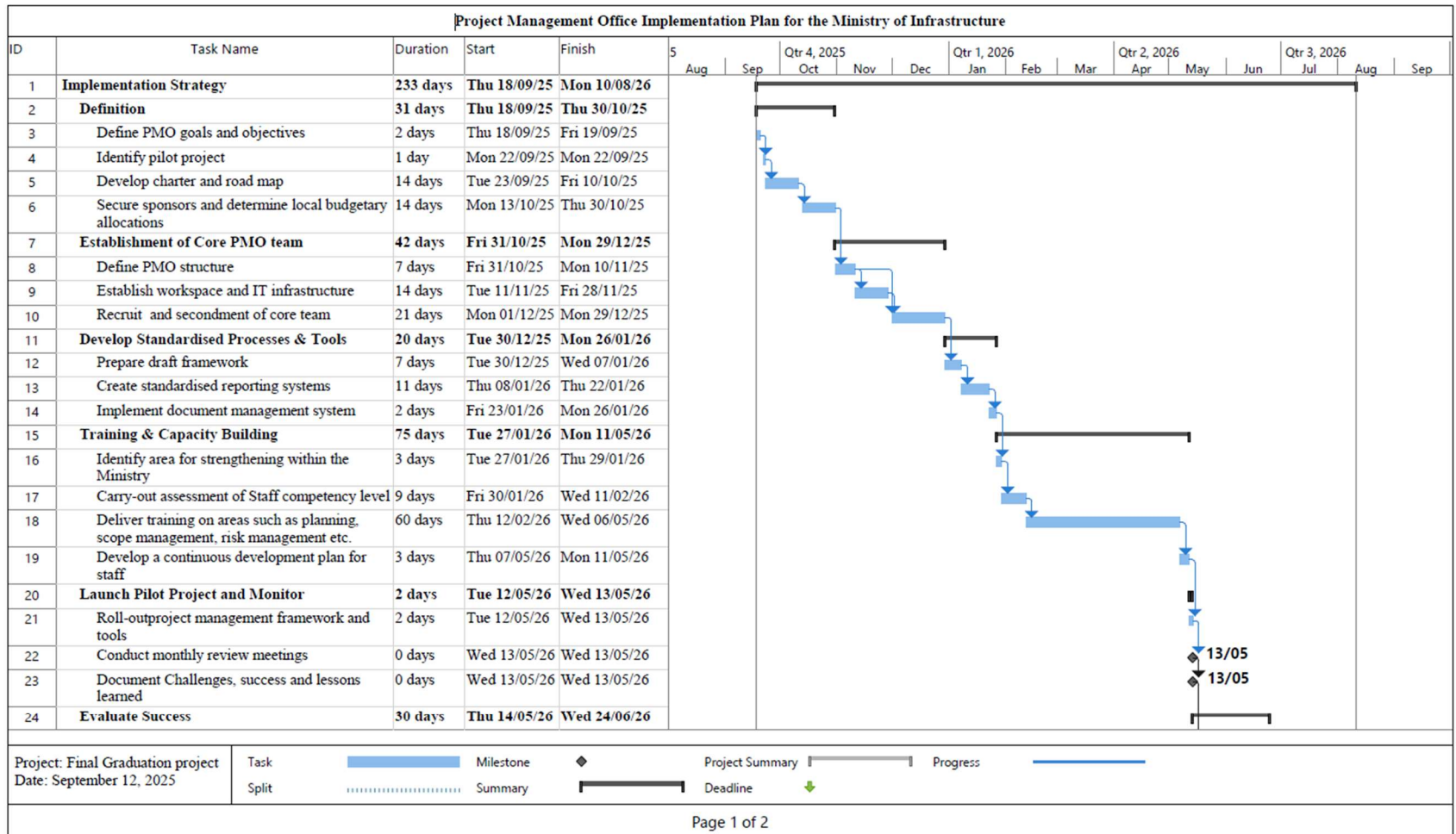
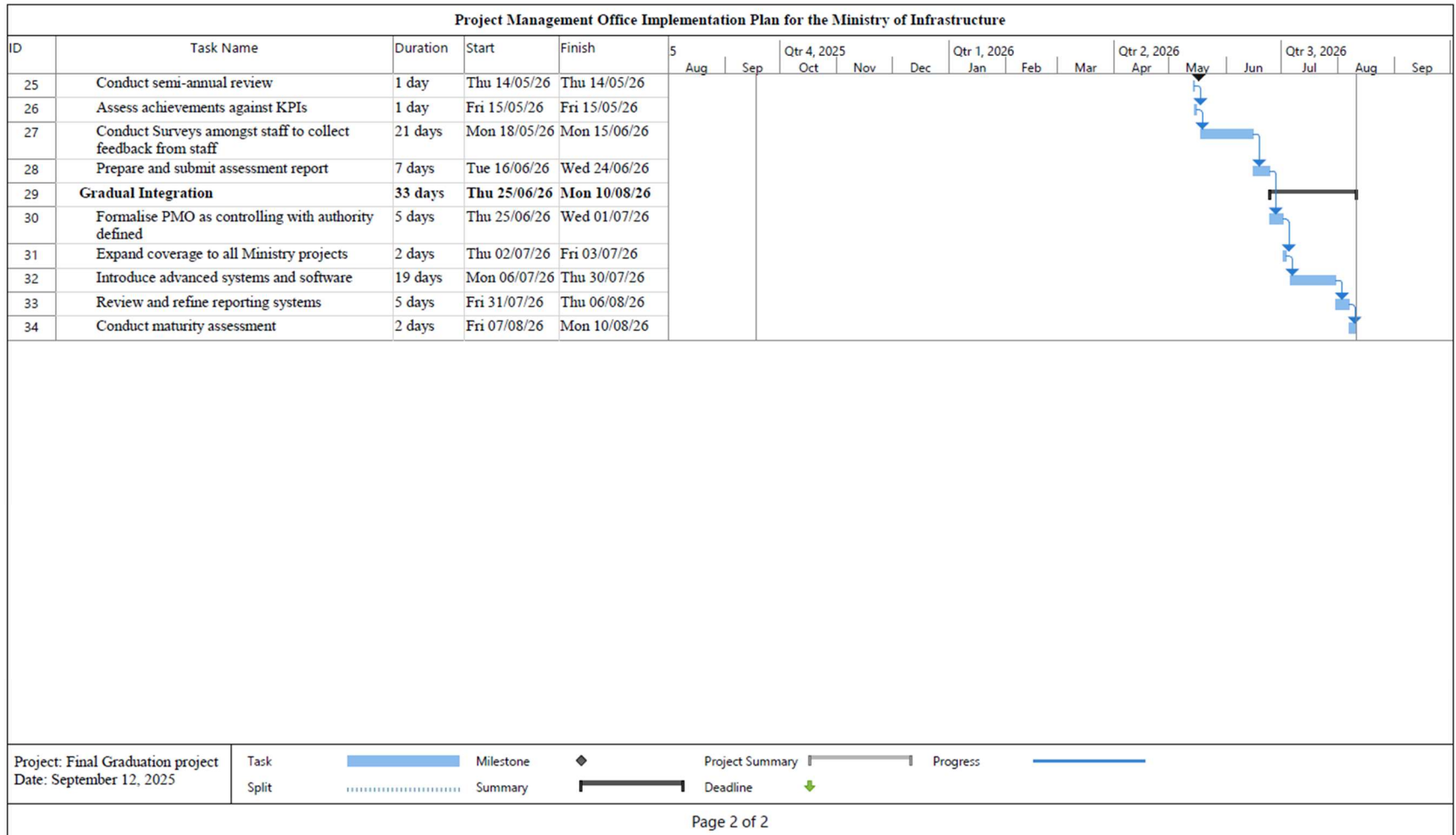


Figure 31

PMO Introduction Schedule Cont'd (Source: Author)



4.5 To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.

Training and education form the foundation of an effective project management environment (Hill, 2013). They equip staff with the skills, knowledge, and competencies necessary to implement modern project management concepts aligned with both technical and business practices. The project management office, with its charter to promote professional project management, plays a vital role in advising senior management on training and education within the project management framework. Its aim is to ensure that project participants across the organisation, from senior project managers to part-time project assistants, adopt a professional approach to modern project management consistent with their levels of responsibility. This “training and education” function allows the PMO to:

1. Specify the competencies needed within the project management environment
2. Identify current competencies within the project management environment
3. Develop training and education programs to achieve the competency objective
4. Conduct and manage training and education programs

Figure 32

Range of PMO training activities across the PMO continuum

<i>Project Office</i>	<i>Basic PMO</i>	<i>Standard PMO</i>	<i>Advanced PMO</i>	<i>Center of Excellence</i>
Manages project team member participation in optional and required training <ul style="list-style-type: none"> • Facilitates technical training needed for each project • Facilitates professional development training available within the organization 	Identifies needs and facilitates participation in relevant training programs <ul style="list-style-type: none"> • Monitors training requirements • Identifies internal and external training providers • Introduces basic project manager training courses • Integrates technical training 	Establishes and manages a formal training curriculum <ul style="list-style-type: none"> • Defines competency requirements • Develops and implements a comprehensive training program for project managers, team members, and executives • Evaluates project environment training results 	Expands training capability and oversight role <ul style="list-style-type: none"> • Extends project management training to other stakeholders • Introduces advanced topic training • Manages project management environment training records 	Uses training results in strategic business initiatives <ul style="list-style-type: none"> • Prompts vendor and contractor participation in training programs • Applies training credentials in customer and other business proposals • Applies training credentials in advertising and marketing

Note, From The Complete Project Management Office, by Gerard M. Hill (2014), Range of Training and Education Activities across the PMO Continuum

Figure 29 shows activities associated with training, with prescribing training for a PMO, in this instance, the standard PMO competency was used. Based on the interview with the Chief Technical Officer and staff functioning as project managers, most indicated that the following training requirements should be established.

1. Core project management courses example
2. Advanced and optional project management courses- available to those who have completed the core project management course
3. Technical courses – to support engineers and technicians with project implementation and quality control
4. Workshops and seminars applicable to senior management to advance their involvement in and understanding of the project management environment

5. CONCLUSIONS

1. This study highlighted the deficiencies within the Ministry of Infrastructure, particularly in project management and implementation. In conducting this study, various tools were employed, such as questionnaires and reviews of journals and other literature. The first objective identified the weaknesses and challenges faced by the Ministry, including cost overruns, project delays, poor communication across departments, and the lack of standardised processes, all of which were linked to the absence of a centralised Project Management Office.

It was also confirmed that most staff recognised the shortcomings and agreed that implementing a project management office would improve project delivery. It also highlighted that long-serving staff members were resistant to the reform, revealing cultural barriers that need to be overcome.

2. The second objective sought to carry out a project management maturity analysis of the Ministry across the ten knowledge areas, which was done using the PMMM_{sm} method. The results indicated that the maturity level is lower than the requirements at 1.78, which is less than a level 2, considering the magnitude and complexity of the project executed annually. Critical areas such as project schedule, project scope management, project cost management and project quality management received low maturity levels from the analysis of 2.2, 2.2, 2.2 and 1.4, respectively. This data confirms that deficiencies such as persistent delays, resource conflict and poor cost and project planning. The project quality management reflects a trend with inconsistent control and assurance practices that will increase the likelihood of long-term maintenance and undermine the reliability of project outcomes.

3. The findings in the assessment of the third objective further emphasised the deficiencies in the Ministry as it relates to project delivery and the need for a PMO. It sought to determine the most appropriate PMO structure that would be easily incorporated into the existing government structure without the need for any constitutional reform. The questionnaire and interview with the chief technical officer concluded that the most suitable would be the Controlling PMO simply because of the harmony that it encourages between guidance and authority, while still introducing the necessary framework and compliance mechanism.
4. The fourth objective sought to define a strategy for the incorporation of the PMO into the Ministry. It was found that the strategy should focus on building on existing standards as well as ensuring that they align with the industry best practices. It should also involve the introduction of support technologies as well as training and capacity building of current staff to function under the PMO.
5. The last objective essentially identified the resources and training required for the implementation of the PMO. These included core and advanced project management courses as well as technical training and workshops to bring staff up to the international standards. Moreover, the use of modern project management software was also recommended for a successful PMO.

5 RECOMMENDATIONS

1. Based on the first objective, which involved identifying the deficiencies in the Ministry, and considering the data collected from the questionnaires, the Ministry should establish a centralised PMO to improve coordination and provide project oversight. A change management strategy should be developed to remedy resistance from long-serving staff.
2. PMO should make the necessary adjustments within the Ministry to ensure that the Maturity Level is between three, where project integration efforts are institutionalised with procedures and standards, and the full management process is documented and utilised by most projects and that there is active stakeholder participation.
3. A consultant who specialises in the development of PMOs should be engaged to assess the specific needs of the department, develop a system of methodologies, policies, frameworks, as well as determine the roles of current staff in the PMO and the need for additional resources. Moreover, a Controlling PMO should be adopted within the technical department to ensure that it allows for the necessary oversight and compliance while allowing for flexibility and introducing regular review of the PMO against the recommended key performance indicators.
4. The PMO should be introduced gradually or in phases to examine the system and then scaled up; this will minimise shock or resistance and allow staff to adjust and make adjustments based on lessons learned.
5. Implement continuous and mandatory training programs, including core and advanced management certifications e.g. Project Management Professional or PRINCE2, risk management and contract management.

6 VALIDATION OF THE FGP IN THE FIELD OF REGENERATIVE AND SUSTAINABLE DEVELOPMENT

World Health Organisation: WHO (2020) defines sustainable development as a broad term to describe policies, projects, and investments designed to deliver benefits today without compromising environmental, social, and personal health in the future. These policies are often termed 'green' because they aim to limit the impact of development on the environment. The concept is acknowledged through the United Nations' (UNs') sustainable development goals (SDGs), a set of 17 global objectives addressing poverty, environmental sustainability, and social inclusivity. Research by Gareis et al. (n.d.) suggests that sustainable development is a new paradigm relevant to projects and programmes that requires careful consideration of economic, ecological, and social issues. A formal process to design for evolvability may present a more effective approach to assist teams in managing the unique characteristics of sustainable development projects. It also involves balancing short-term project goals with long-term sustainability outcomes, ensuring that the project positively contributes to the environment while remaining economically viable.

Regenerative design seeks to redefine sustainability, it is a system of developmental technologies and strategies that works to enhance the ability of living beings to co-evolve, so that the planet continues to express its potential for diversity, complexity, and creativity through harmonizing human activities with the continuing evolution of life on our planet, as we continue to develop our potential as humans. Regenerative development provides the framework and builds the local capability required to ensure regenerative design processes achieve maximum systemic leverage and support through time (Mang & Reed, 2013).

Development of a PMO within the Ministry of Infrastructure provides an opportunity to incorporate both sustainable and regenerative development principles, which will allow for adoption of green building standards, renewable energy solutions and climate-resilient infrastructure. A well-structured PMO will enhance stakeholder participation, ensuring that development projects align with stakeholder participation, ensuring that development projects align with community needs and social equity goals. On the other hand, a poorly managed project can lead to excessive use of non-renewable materials, deforestation and soil degradation.

6.1 Relationship of the project to the Sustainable Development Goals.

The Sustainable Development Goals (SDGs) originated from the United Nations Conference on Sustainable Development at Rio de Janeiro in 2012. The main goal was to produce a set of universal goals that meet the urgent environmental, political and economic challenges facing our world. SDGs replaced the Millennium Development Goals (MDGs), which started a global effort in 2000 to tackle the indignity of poverty. The MDGs established measurable, universally agreed-upon objectives for tackling extreme poverty and hunger, preventing deadly diseases, and expanding primary education to all children, among other development priorities. Notwithstanding the legacy and achievements of the MDGs, many believe that the job was incomplete; some work was required to end hunger, achieve full gender equality, improve health services and get every child into school beyond primary (*Background on the Goals*, n.d.)

All 17 goals are interconnected, meaning success in one affects success for another these goals are No Poverty which is target at eradicating extreme poverty for all people and build the

resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters. Secondly, Zero Hunger involves ending hunger and ensuring access by all people, as well as correcting and preventing trade restrictions and distortions in world agricultural markets.

The third SDG goal is good health and well-being, which focuses partly on substantially reducing the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination. The fourth SDG is quality education, one of its targets is build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all. The fifth is gender equality and the sixth is clean water and sanitation, and a target of this goal is to improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.

The seventh goal is affordable and clean energy, which aims to expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support. The eighth goal is Decent Work and Economic Growth, which seeks to promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

The ninth SDG is industry, innovation and infrastructure, which also seeks to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. The tenth is to reduce inequalities within and among countries, the eleventh is sustainable communities and cities, and the target is to ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums. The twelfth is responsible consumption through sustainable management and efficient use of natural resources.

SDG number 13 is climate action to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. The fourteenth SDG is Life below water, and it is meant to conserve and sustainably use the oceans, seas and marine resources for sustainable development. Number fifteen is Life on land, which seeks to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Goal sixteen promotes peaceful and inclusive societies for sustainable development, provides access to justice for all and builds effective, accountable and inclusive institutions at all levels, and lastly, SDG seventeen is partnerships for the goals, strengthens the means of implementation and revitalizes the Global Partnership for Sustainable Development.

The Ministry's current performance and state highlight the need for a structured PMO to ensure that projects align with the SDG sustainability target. Moreover, many of our multilateral donors have mandated that sustainability be included within the project in order to be eligible for funding. Additionally, since the department is responsible for public infrastructure, which is critical for economic growth and sustainability, the ninth SDG goal is crucial. Moreover, the ministry has a duty to ensure that the performance of infrastructure and public buildings are

efficient in accordance with SDG eleven the PMO ensure that the projects are completed, benefiting citizens and contributing to urban resilience.

SDG 4 speaks of the quality education, the maintenance, rehabilitation and construction of schools is the responsibility of the Ministry of Infrastructure; therefore, having a well-managed PMO would strengthen the government's ability to uphold this goal. Lastly, the Ministry relies on funding from international organizations like the Caribbean Development Bank and the World Bank. Poor project performance leads to donor concerns and potential withdrawal of funding. A PMO would strengthen governance and project transparency, fostering better international partnerships and ensuring continued financial support.

6.2 Analysis of the project according to Standard P5

The rapid global evolution has shown the growing importance of sustainability and deemed it and priority rather than a choice. The growing concerns of climate change and social inequality, as well as natural resources necessitate that Project Managers adopt sustainable practices. Organizations that fail to incorporate sustainability into their operations not only risk harming the environment but also face financial instability and reputational challenges.

A recent and effective way to integrate sustainability into project management is through the Green Project Management GPM P5 Standard for sustainability in Project Management. This framework offers a structured approach to embedding sustainability into projects, ensuring that they align with environmental, social, and economic goals (*Implementing the P5 Standard: A Guide for Project Managers*, 2024).

The P5 Standard emphasizes five key dimensions: Product, Process, People, Planet, and Prosperity. These aspects align with the United Nations Sustainable Development Goals (SDGs) and serve as a comprehensive framework for ensuring sustainability throughout the project lifecycle. Additionally, Scoring Criteria serves as a systematic tool for measuring both the positive and negative sustainability impacts of a project. This essay explores the methodology behind the scoring system, the criteria used to assess sustainability, and how organizations can apply this analysis to improve project outcomes.

P5 impact analysis is important because it ensures a holistic assessment of sustainability within project management. Traditional project assessment methods solely focus on cost, schedule, and performance, often neglecting broader sustainability concerns. However, the P5 framework provides a comprehensive perspective by considering the entire lifecycle of a project and its wider impact on society, the environment, and the economy. This enables project managers to make informed decisions that align with both business objectives and sustainability goals.

Another major benefit of the P5 Impact Analysis is its role in risk identification and mitigation. Sustainability-related risks, such as environmental degradation, unethical labour practices, or regulatory non-compliance, can pose significant threats to an organization's reputation, operations, and financial stability.

6.2.1 P5 Impact Analysis

Table 8

P5 Impact Analysis

Organization: *Ministry of Infrastructure, Public Utilities, Civil Aviation and Transportation*

Project: *Development of a Project Management Office for the Ministry of Infrastructure*

People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
Element	Definition									
Employment and Staffing	Employment and staffing is the process of obtaining the personnel needed to carry out the project. It includes identifying the skills required for successful completion of the project, recruiting potential individuals (internally or externally), managing their time and performance, training them	Lifespan	Yes	There currently isn't sufficient staffing to ensure the longevity of the PMO	The PMO could be dissolved eventually resulting in poor sustainable management of projects	2	Identify the roles necessary for a successful PMO, then engage experts based on that criteria	4	2	

Organization: *Ministry of Infrastructure, Public Utilities, Civil Aviation and Transportation*

Project: *Development of a Project Management Office for the Ministry of Infrastructure*

People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
	when needed, and compensating them accordingly.									
		Servicing	No							
		Effectiveness	Yes	The hiring process does not consider the goals of the Ministry	The staff will not be able to help the organisation achieve its sustainable goals	2	Develop a strategic objective for the Ministry and incorporate it into the criteria for hiring	4	2	
		Efficiency	Yes	The Ministry is understaffed; therefore, tasks / activities are not completed on time	Projects will be delayed, and there will be potential cost overruns	1	Identify the vacant posts and fill them with qualified professionals	3	2	

Organization: *Ministry of Infrastructure, Public Utilities, Civil Aviation and Transportation*

Project: *Development of a Project Management Office for the Ministry of Infrastructure*

People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
		Fairness	Yes	Employment is not always based on qualifications or experience in project management or relevant fields	The staff will not be able to adequately perform in the various roles	2	Modify policies to prohibit the hiring of unqualified persons	3	1	
Labor Management Relations	Labor/management relations in the project context means building trust, understanding, and cooperation among project and other managers, organizational staff, and project team members. It involves respecting each other's opinions, resolving conflicts proactively, communicating	Lifespan	No							

Organization: *Ministry of Infrastructure, Public Utilities, Civil Aviation and Transportation*

Project: *Development of a Project Management Office for the Ministry of Infrastructure*

People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
	clearly, and ensuring that everyone is aware of their roles and responsibilities.									
		Servicing	No							
		Effectiveness	No							
		Efficiency	No							
		Fairness	No							
Project Health and Safety	Project health and safety is the practice of creating safe working conditions for personnel involved in the project. It involves implementing measures such as hazard assessment, risk	Lifespan	No							

Organization: *Ministry of Infrastructure, Public Utilities, Civil Aviation and Transportation*

Project: *Development of a Project Management Office for the Ministry of Infrastructure*

People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
	management, training, enforcement, and investigation. Its main goal is to ensure that workers are not exposed to any unnecessary risks while performing their work.									
		Servicing	No							
		Effectiveness	No							
		Efficiency	No							
		Fairness	No							
Training and Qualifications	Training and qualifications is the process of ensuring that project team members have the necessary skills to effectively	Lifespan	Yes	Currently the staff aren't frequently trained and kept	In the long term the best practises will not be applied to	2	Implementation of mandatory professional development	4	2	

Organization: *Ministry of Infrastructure, Public Utilities, Civil Aviation and Transportation*

Project: *Development of a Project Management Office for the Ministry of Infrastructure*

People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
	complete their work. It involves providing instruction, assessing proficiency, monitoring performance, and offering guidance.			up to date with recent standards and best practises	projects and their processes resulting in deficiencies		programs for practitioners			
		Servicing	No							
		Effectiveness	Yes	A large percentage of workers are not trained in the relevant areas that will benefit the Ministry's ability to achieve its goals	The number of untrained worker can prevent the Ministry from achieving its goals	2	Avoid hiring persons without prior training and experience for key/specialised roles	4	2	

Organization: *Ministry of Infrastructure, Public Utilities, Civil Aviation and Transportation*

Project: *Development of a Project Management Office for the Ministry of Infrastructure*

People Impacts										
Subcategory	Labor Practices and Decent Work	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Initial Impact Score	Proposed Response	New Impact Score	Change	Comments (optional)
		Efficiency	Yes	A large percentage of workers are not trained in project management and sustainable development.	The number of untrained staff means tasks are not executed on time or within budget	2	Avoid hiring persons without prior training and experience for key/specialised roles	3	1	
		Fairness	Yes	There is little effort to ensure equality and when offering training and assessing performance	Training will be offered to persons who may not need it, and the skills will not be used for the right purpose	2	Carry-out thorough evaluations of proposed persons to be trained	3	1	

Subcategory	Society and Customers	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
Community Engagement	Community engagement is the practice of treating local residents as stakeholders in the project. This is essential as it ensures that local needs and perspectives are taken into consideration when taking any action that affects the community. It also requires a two-way exchange of information and ideas between the project team and the community to make the project more effective, efficient, and beneficial for all involved.	Lifespan	Yes	Stakeholder engagements are not carried out frequently enough, or not at all based on the size of the project	Lack of stakeholder engagement can negatively affect long term collaboration and support for projects	1	Make stakeholder engagements a mandatory process for all projects	4	3	
		Servicing	No							
		Effectiveness	Yes	The project team rely on their own judgment when identifying issues	The issues of the stakeholders will not be addressed and project objectives will not be achieved	1	Once stakeholder engagements are carried out they should be minuted and signed by all participants	4	3	

Subcategory	Society and Customers	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
		Efficiency	Yes	Community engagement can be time consuming which requires careful planning	Poor planning of the community engagement can cause chaos and issues will not properly be identified	2	Stakeholder management plans should be developed and adhered to	3	1	
		Fairness	Yes	Project team fail to communicate honestly with community	Lack of honesty can equity can reduce trust from community	2	Once stakeholder engagements are carried out they should be minuted and signed by all participants . Honesty and accountability programs should be offered to project team	3	1	

Subcategory	Society and Customers	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
Public Policy and Compliance	Public policy and compliance includes the steps taken by the project team to ensure that the project complies with all relevant laws and regulations. This involves researching relevant laws and regulations, understanding their implications for the project, and taking necessary steps to make sure these laws and regulations are respected throughout the project's duration.	Lifespan	Yes	The organisation has a well structured system to develop and implement policies	Having structured for long-term policies will prevent uncertainty	4	Maintain the same standard	4	0	
		Servicing	No							
		Effectiveness	Yes	Policies do not take into account environmental and social responsibilities of government projects	Environment and social issues may arise during implementation of projects	1	Make it mandatory that environmental and social considerations are taken into account for policy planning	5	4	

Subcategory	Society and Customers	Lens	Score d?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
							and developme nt			
		Efficiency	Yes	Governments change every 5 years and thus policies are amended with the changing government	Policy shifts due to political changes can disrupt projects, leading to delays, redesign and cancellation	1	Ensure that policies are protected by constitutional provisions	4	3	
		Fairness	No							

Planet Impacts										
Subcategory	Transport	Lens	Scored?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
Local Procurement	Local procurement is the practice of purchasing products and services from local suppliers.	Lifespan	No							
		Servicing	No							
		Effectiveness	No							
		Efficiency	No							
		Fairness	No							
Digital Communication	Digital communication is the use of digital tools and platforms to communicate about the project. These tools can include websites, email newsletters, social media accounts, messaging applications, and other digital communication channels.	Lifespan	Yes	The Ministry currently has a paperless instruction to prevent staff from printing project documents	This will contribute to the climate smart and sustainable goals of the country	4	This should be made into policy for all Ministries and departments.	5	1	

Planet Impacts										
Subcategory	Transport	Lens	Scored?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
		Servicing	Yes	The Ministry has a robust IT department that handles the maintenance of all technological equipment for the staff	This prevents delays due to downtime of digital tools and software	5	The system should be maintained	5	0	
		Effectiveness	Yes	There are manual systems that can be automated with software	This will increase errors as well as slow down several processes	4	Implementation of software and training to digitalise the operations	5	1	
		Efficiency	Yes	The use of virtual platforms allows frequent meetings to be convened	This allows the Ministry to address project-related issues faster and to provide updates to a broader audience	5	The system should be maintained	5	0	
		Fairness	No							

Prosperity Impacts										
Subcategory	Project Feasibility	Lens	Scor ed?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
Business Case Analysis	Business case analysis is the process of developing a business case that provides justification for the initiation or continuation of the project. It involves analysing the underpinning logic of funding the project. This requires identifying the expected benefits and dis-benefits, likely costs and revenues, staffing requirements, major risks, schedule alternatives, and stakeholder impacts associated with a proposed project.	Lifespan	No							
		Servicing	No							

Prosperity Impacts										
Subcategory	Project Feasibility	Lens	Scored?	Description (Cause)	Potential Sustainability Impact	Impact Score Before	Proposed Response	Impact Score After	Change	Comments (optional)
Element	Description									
		Effectiveness	Yes	There is no business case to identify resources and staffing	This will result in not meeting the requirements to deliver the project	1	Identify resources and staffing required to deliver the project results	4	3	
		Efficiency	Yes	There is no business case to monitor project progress against defined cost and schedule	This will result in cost overruns and targets not being met	1	The Project team should monitor project progress against clearly defined cost and schedule targets to identify variances	4	3	
		Fairness	No							

Table 9*P5 Impact Analysis Scores*

People Impacts	Initial Score	Impact	New Score	Impact	Change
Labor Practices and Decent Work	1.9		3.5		1.6
Society and Customers	1.7		3.9		2.1
Human Rights					
Ethical Behaviour					
Overall People Score	3.5				

Planet Impacts	Initial Score	Impact	New Score	Impact	Change
Transport	4.5		5.0		0.5
Energy					
Land Air, and Water					
Consumption					
Overall Planet Score	5.0				

Prosperity Impacts	Initial Score	Impact	New Score	Impact	Change
Project Feasibility	1.0		4.0		3.0
Business Agility					
Local Economic Impact					
Overall Prosperity Score	4.0				
Overall Project Score	4.0				

Figure 33

P5 People Impact Bar Graph (Source: Author)

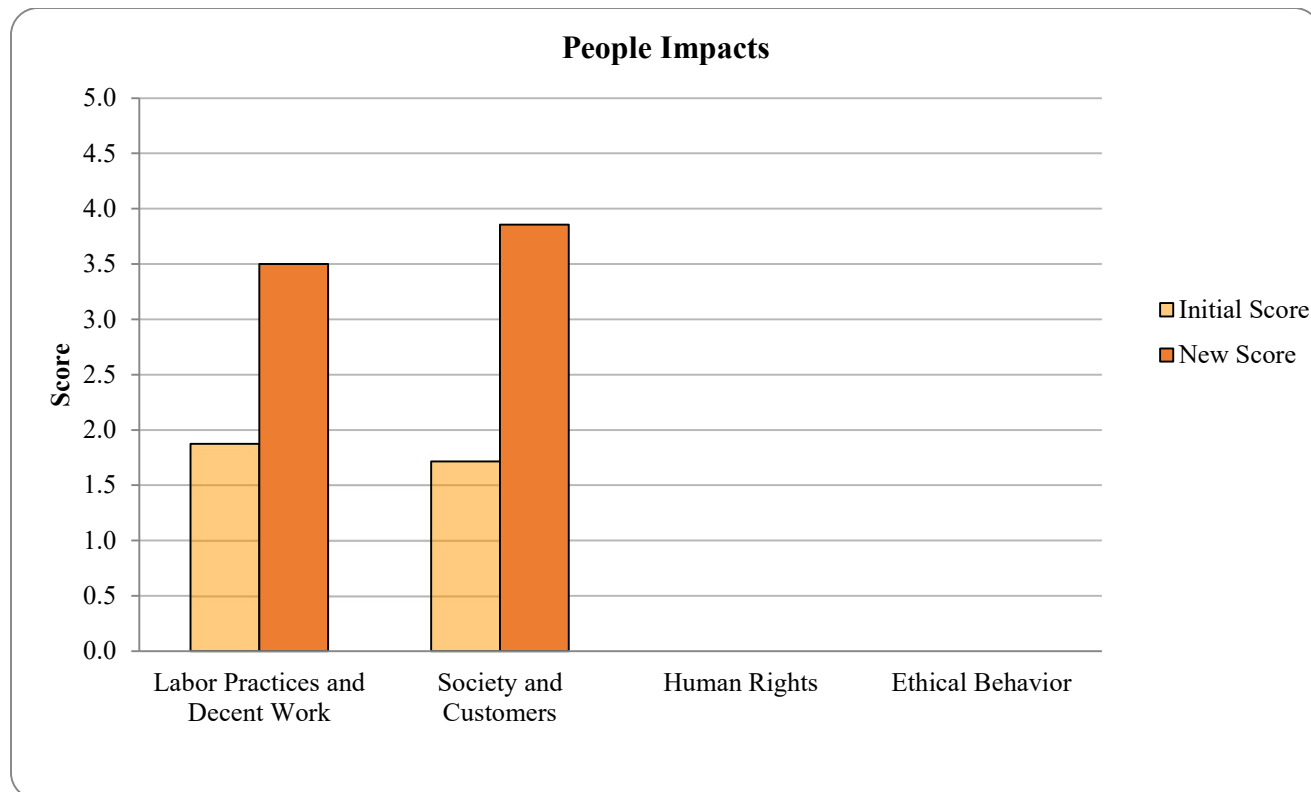


Figure 34

Plant impact bar graph (Source: Author)

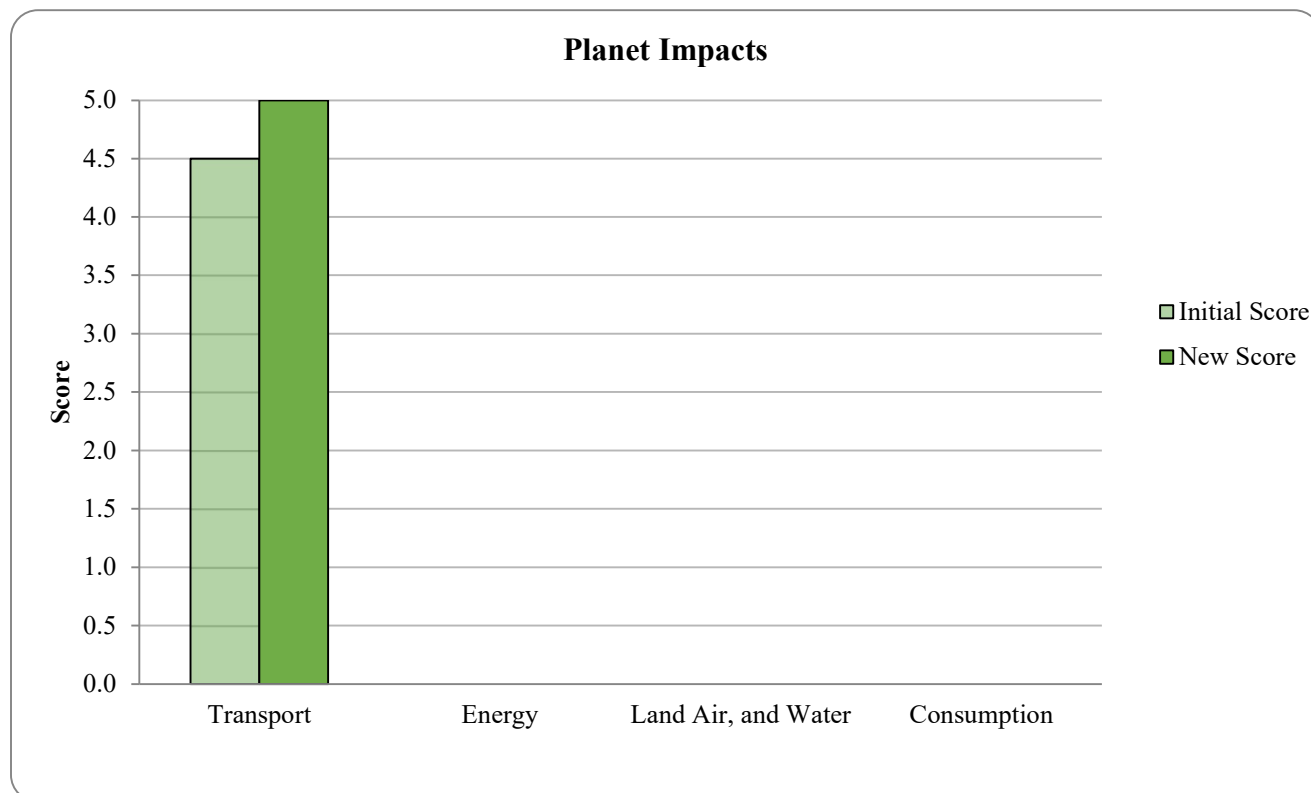
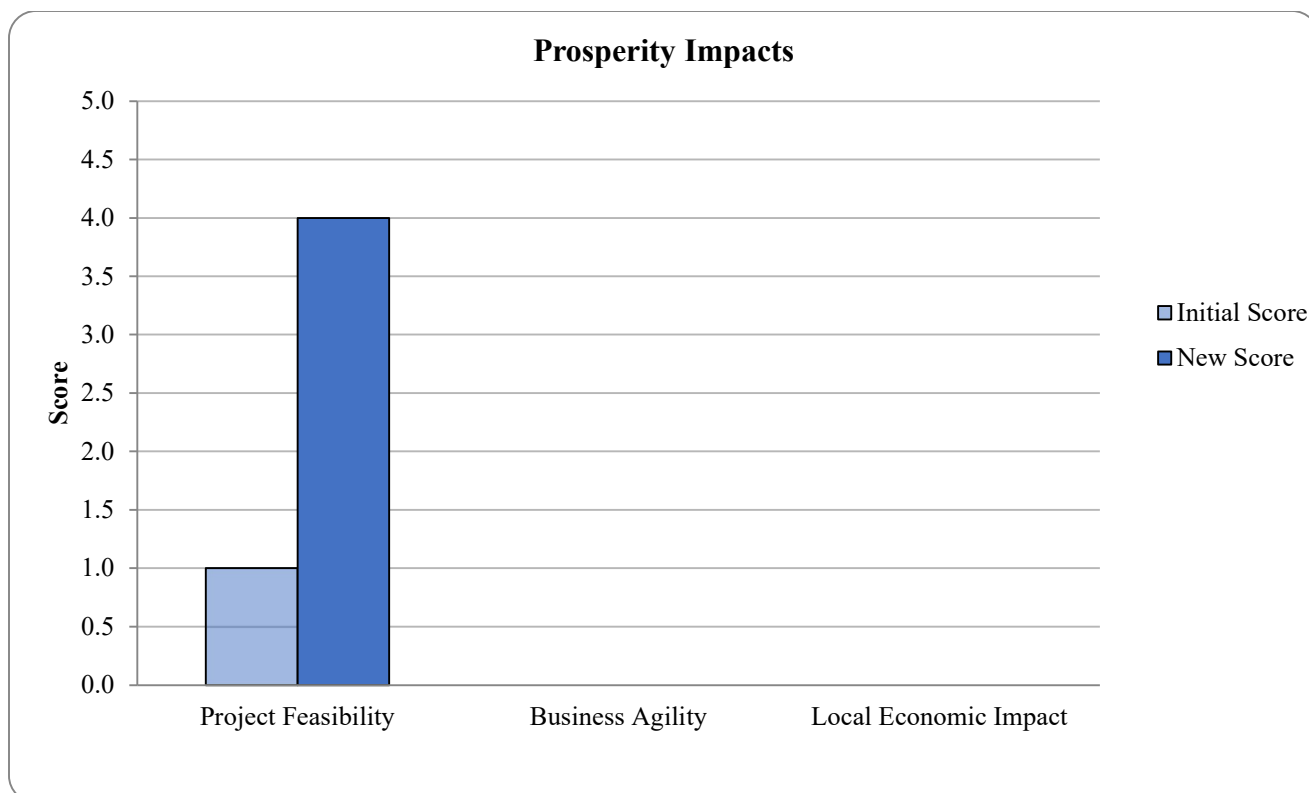


Figure 35

P5 prosperity impact bar graph (Source: Author)



Comment in summary form after the template, the results obtained in terms of the proposed improvements for each category.

The P5 impact analysis showed that there is significant improvement to be made with regards to the People Impact, as it presented the lowest score. A fundamental aspect of People impact is ensuring that employees and workers operate in safe, fair, and healthy conditions. The Projects should not only benefit their direct stakeholders but also contribute to the social and economic well-being of surrounding communities. Stakeholder engagement plays a crucial role in the People impact of P5 analysis. A project's success is largely dependent on how well it aligns with stakeholder interests and expectations.

Relationship of the project to the dimensions of Regenerative Development

Regenerative Development is an advanced sustainability approach that seeks not only to minimize negative environmental and social impacts but also to actively restore and enhance ecosystems, communities, and economies. Unlike conventional sustainable development, which focuses on reducing harm, Regenerative Development aims to create net-positive outcomes, ensuring that projects contribute to long-term ecological and social health.

When applying Regenerative Development principles to project management, it is crucial to assess how a project interacts with the five dimensions of P5 Impact Analysis (Product, Process, People, Planet, and Prosperity). Projects should be designed to restore natural resources, strengthen communities, and promote long-term economic resilience. This requires considering the life cycle of products, sustainable processes, social impacts, environmental restoration, and equitable economic growth.

Product validation is essential in ensuring that project outputs align with regenerative goals. This involves Assessing product life cycle sustainability –ensuring that materials, production, use, and disposal restore rather than deplete natural systems. Ensuring alignment with regenerative principles – validating that the project outputs actively contribute to environmental, social, and economic regeneration. Incorporating stakeholder feedback – involving local communities, experts, and users to ensure that products serve their intended regenerative purpose. By validating project outputs within a regenerative framework, organizations can ensure that their projects not only meet but exceed sustainability expectations.

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8 APPENDICES

8.1 APPENDIX 1: FGP Charter

CHARTER OF THE PROPOSED

FINAL GRADUATION PROJECT (FGP)

1. Student name

Tiffani Donald

2. FGP name

Development of a Project Management Office for the Ministry of Infrastructure Public
Utilities Civil Aviation and Transportation, Grenada

3. Application Area (Sector or activity)

Construction / Governance

4. Student signature

T.Donald

5. Name of the Graduation Seminar facilitator

Carlos Brenes Mena

6. Signature of the facilitator

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7. Date of charter approval

--

8. Project start and finish date

February 21, 2025	May 21, 2025
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9. Research question

Given the complexity and magnitude of the projects undertaken by the Ministry of Infrastructure, how can the development of a project management office impact the delivery of public projects and the management of risk within the organization?

10. Research hypothesis

The development of a Project Management Office enhances the Ministry's capacity to optimize project delivery and reduce risks, as well as the government's ability to align projects with national strategic goals.

11. General objective

To develop a Project Management Office (PMO) to improve the project delivery, governance and strategic alignment within the Ministry

12. Specific objectives

6. To evaluate the existing deficiencies created because of the absence of a PMO to determine areas of weakness in project delivery.
7. To carry out maturity analysis and assess the organisational needs of the Ministry, and investigate the associated risks that develop as a result of the Ministry not having a PMO.
8. To determine the most appropriate PMO structure for the Ministry and develop key performance indicators to appraise the performance of the PMO, so as to ensure efficiency and optimal performance of the PMO.

9. To incorporate the PMO into the existing government structure through the standardisation of the Project Management framework and the utilisation of best practices.
10. To identify the resources, training and capacity-building programs for the project team to optimise workload and ensure staff have the requisite skillset for successful operations of the PMO.
- 1.

13. FGP purpose or justification

1. The PMO has a significant influence on the strategic performance of any organization, as there is no such office in the Ministry of Infrastructure, this project will serve as a guideline to be adopted.

2. This project will allow the Ministry to improve their project management skills, standardize processes, methods tools and techniques to regulate management and enable development of routines
3. The PMO can increase the value contribution of project management which ensures efficient and effective use of resources.
4. The Ministry spends 10s of millions of dollars annually on mismanaged projects, investment in a PMO will ensure that resources are allocated to manage the activities and expenditure of projects

14. Work Breakdown Structure (WBS). In table form, describing the main deliverable as well as secondary, products or services to be created by the FGP.

1 Final Graduation Project

1.1 FGP Seminar

1.1.1 Introduction

1.1.1.1 Appendix 1: FGP Charter Items 1 to 12

1.1.1.2 Appendix 4: Bibliographical Research

1.1.2 FGP Charter

1.1.2.1 Appendix 1: FGP Charter Items 13 to 20

1.1.2.2 Appendix 2: FGP WBS

1.1.2.3 Appendix 3: FGP Schedule

1.1.3 Theoretical Framework 1

1.1.3.1 Correction Deliverable 2

1.1.3.2 Ch.2 Theoretical Framework

1.1.4 Theoretical Framework 2

1.1.4.1 Correction Deliverable 3

1.1.4.2 Chapter 2 Theoretical Framework

1.1.5 Methodological Framework

1.1.5.1 Correction Deliverable 4

1.1.5.2 Methodological Framework

1.1.6 Unit 5 Introduction

1.1.6.1 Correction Deliverable 5

1.1.6.2 Chapter 1 Introduction

1.1.6.3 Project Validation in Regenerative & Sustainable Development

1.1.7 Executive Summary

1.1.7.1 Corrections Deliverable 6 Completed Document

1.1.7.2 Abstract

1.1.7.3 Executive Summary

1.1.7.4 References

1.1.7.5 Indexes

1.1.8 FGP Charter

1.1.8.1 FGP Charter

1.2 Tutoring Process

1.2.1 Tutor

1.2.1.1 Tutor Assignment

1.2.1.2 Communication

1.2.2 Adjustments of previous Chapter

1.2.3 Chapter 4 Development (Results)

1.2.3.1 Topic for Objective 1

1.2.3.2 Topic for Objective 2

1.2.3.3 Topic for Objective 3

1.2.3.4 Topic for Objective 4

1.2.3.5 Topic for Objective 5

1.2.4 Chapter 5 (Conclusion)

1.2.5 Chapter 6 (Recommendations)

1.3 Reading by reviewer

1.3.1 Reviewers Assignment Request

1.3.1.1 Assignment of Two reviewers

1.3.1.2 Communication

1.3.1.3 FGP Submission to reviewers

1.3.2 Reviewer 1

1.3.2.1 FGP Reading

1.3.2.2 Reader 1 Report

1.3.3 Reviewer 2

1.3.3.1 FGP Reading

1.3.3.2 Reader 1 Report

1.4 Adjustments

- 1.4.1 Report for reviewers
- 1.4.2 FPG Update
- 1.4.3 Second Review by reviewers

1.5 Presentation to Board of Examination

- 1.5.1 Final review by board
- 1.5.2 FGP grade report

15. FGP budget

1. Microsoft Suites USD 900.00
2. Tools and Equipment (Stationary) USD200
3. Hardware, USD 2000.00
4. Transportation USD 180.00
5. Interviews in person (focus group or forum type) USD 75.00
6. Meals USD 400.00
7. Contingency %5

Total USD 3,942.75

16. FGP planning and development assumptions

1. The Ministry is experiencing project inefficiencies, delays and cost overruns due to the lack of project management office.

2. Currently a system for project monitoring and standardized processes does not exist across various projects.
3. The Ministry does not have the capabilities to handle its projects and has a planned growth target that requires the development of a PMO.
4. The decision will have a heavy hierarchical, bureaucratic and political influence
5. Project Management framework and utilization of best practices.
6. The Ministry's Project Management framework lacks structure and is not standardized and requires alignment with industry best practices. The revision of policies and legislature may be required.
7. Some additional financial, technical and human resources will be needed to successfully support the PMO.
8. There is lack of accountability and transparency in the Ministry which weakens the project implementation ability and increases risk of project failure or non-performance.

17. FGP constraints

- The management could be resistant to acknowledging the deficiency, there may be some pushback while trying to collect data through interviews for this research.
- There are no known performance metrics within the ministry to evaluate the success of projects other than substantial completeness.
- The existing government structure does not allow for development of a PMO.

- The Ministries are currently disjointed and there is a lack of coordination and significant miscommunication.
- The timeframe to execute the project is limited to 3 months.

18. FGP development risks

1. The limited timeframe to conduct this research will affect the accuracy of the results and completeness of the report.
2. Disjointedness across the Ministries will affect the accuracy of the data collected as well as the selection of the type of PMO to be adopted.
3. The limited availability of performance metrics could make it difficult to compare the results and outcomes of this research.
4. There can be delays in obtaining the necessary approvals leading to missed milestones.

19. FGP main milestones

WBS	Task Name	Finish
1.1	FGP Seminar	Tue 15/04/25
1.1.1	Introduction	Fri 21/02/25
1.1.2	FGP Charter	Fri 28/02/25
1.1.3	Theoretical Framework 1	Fri 07/03/25
1.1.4	Theoretical Framework 2	Fri 14/03/25
1.1.5	Methodological Framework	Fri 21/03/25
1.1.6	Unit 5 Introduction	Fri 28/03/25
1.1.7	Executive Summary	Tue 08/04/25
1.1.8	FGP Charter	Tue 15/04/25
1.2	Tutoring Process	Tue 29/04/25
1.2.1	Tutor	Tue 29/04/25
1.2.2	Adjustments of previous Chapter	Tue 22/04/25
1.2.3	Chapter 4 Development (Results)	Tue 22/04/25
1.2.4	Chapter 5 (Conclusion)	Tue 22/04/25
1.2.5	Chapter 6 (Recommendations)	Tue 22/04/25
1.3	Reading by reviewer	Tue 13/05/25
1.3.1	Reviewers Assignment Request	Tue 29/04/25
1.3.2	Reviewer 1	Tue 06/05/25
1.3.3	Reviewer 2	Tue 13/05/25
1.4	Adjustments	Tue 20/05/25
1.4.1	Report for reviewers	Tue 20/05/25

1.4.2	FPG Update	Tue 20/05/25
1.4.3	Second Review by reviewers	Tue 20/05/25
1.5	Presentation to Board of Examination	Tue 27/05/25
1.5.1	Final review by board	Tue 27/05/25
1.5.2	FPG grade report	Tue 27/05/25

20. Theoretical framework

20.1 Estate of the “matter”

The Ministry of Infrastructure in Grenada is the line Ministry of all public development in the country, this can range from Government buildings such as schools and medical centres or public infrastructure such as roads and bridges. On average, the Ministry is given a budget of 50 million United States dollars to implement its projects. In addition to the local budget, the Ministry often receives sponsorships from several multilateral agencies, for example the Caribbean Development Bank, the World Bank, as well as through bilateral agreements.

Over the years, there has been an increase in the variety, quantity and complexity undertaken by the Ministry, however, the inverse is experienced as it relates to the quality of implementation. Projects have been experiencing overruns in cost and time; there has been an increase in those abandoned; and there has been the need for contract termination due to non-performance. Moreover, the staff turnover has been at an all-time high, less experienced personnel are being engaged, and donors are frequently requesting to rescind monies. All these issues are attributed to the lack of a dedicated Project Management Office.

Research carried out by Sandhu et al. (2024a) states that the Project management Office (PMO) has a critical influence on the strategic performance of an

organisation. Several investigations were carried out on the definition and responsibilities inside the strategic planning and implementation of projects within organisations, the primary focus of these studies was developing a definition of a PMO that could reflect the essence of its function and role. According to PMI a project management office is a management structure that standardises the project-related governance processes and facilitates the sharing of resources, methodologies, tools and techniques. Its primary role is to manage and oversee several projects under the organisation.

Ichsan et al. (2023) further substantiates the importance of the PMO through his claim that a PMO is a necessity for public and private sector organisations whose main activities are project related, they increase the value contribution of project management, which is ensured by the effective use of resources. Tumi (2020) also mentions that PMOs are becoming especially prevalent in industries that handle high-risk, high-cost projects. These include IT, Telecom, defence and aerospace industries. It should also be mentioned that Organizations are incentivized to maintain a PMO for numerous reasons: to reduce the risk of project failure and increase the chances of business success; to ensure maximum return on investment; to make efficient use of resources; and to utilize resources effectively across a range of projects and programs.

For this research, a qualitative approach will be utilised where the research is divided into two main phases: survey and Focus Group Discussion. It will be further broken down into several sub-sections, including defining research questions, outlining

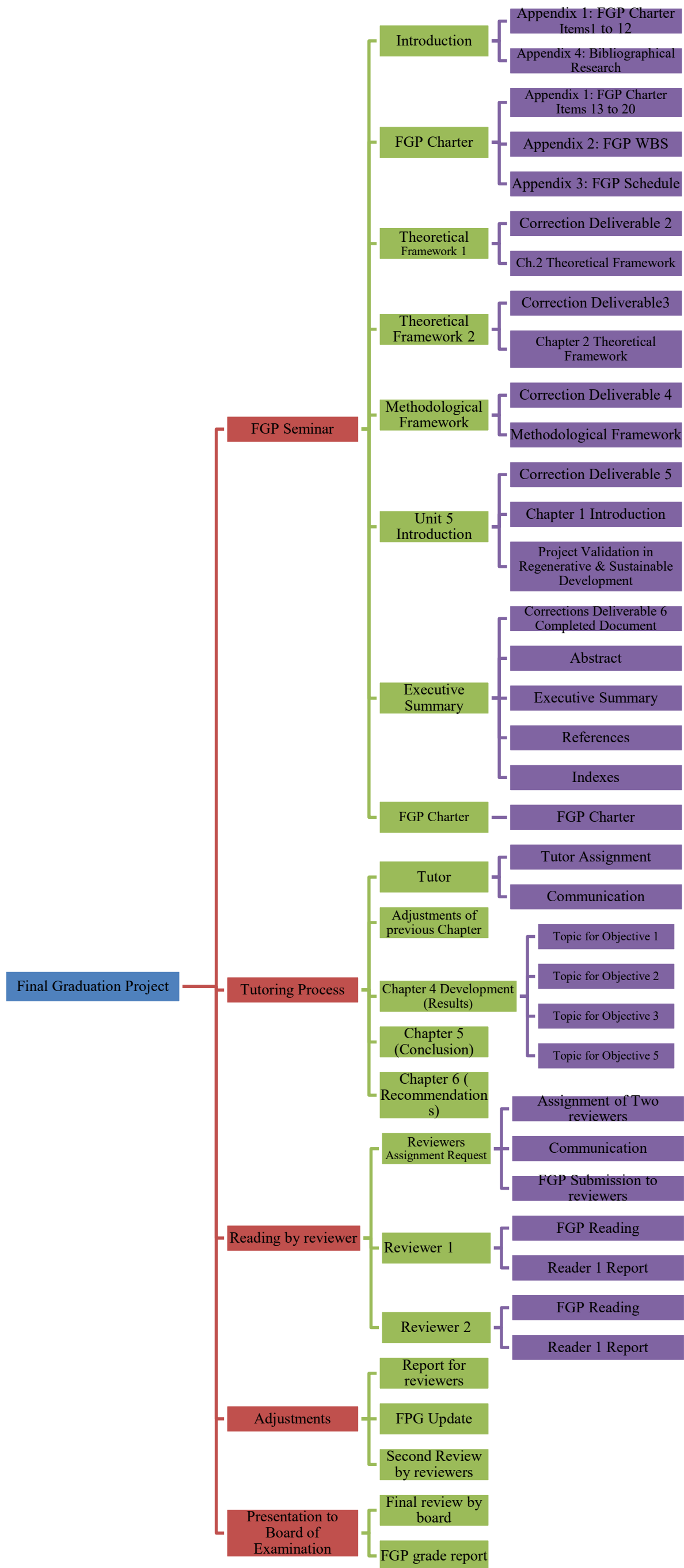
the introduction, identifying research sources, extracting data, and analysing results to answer research questions.

20.2 Basic conceptual framework

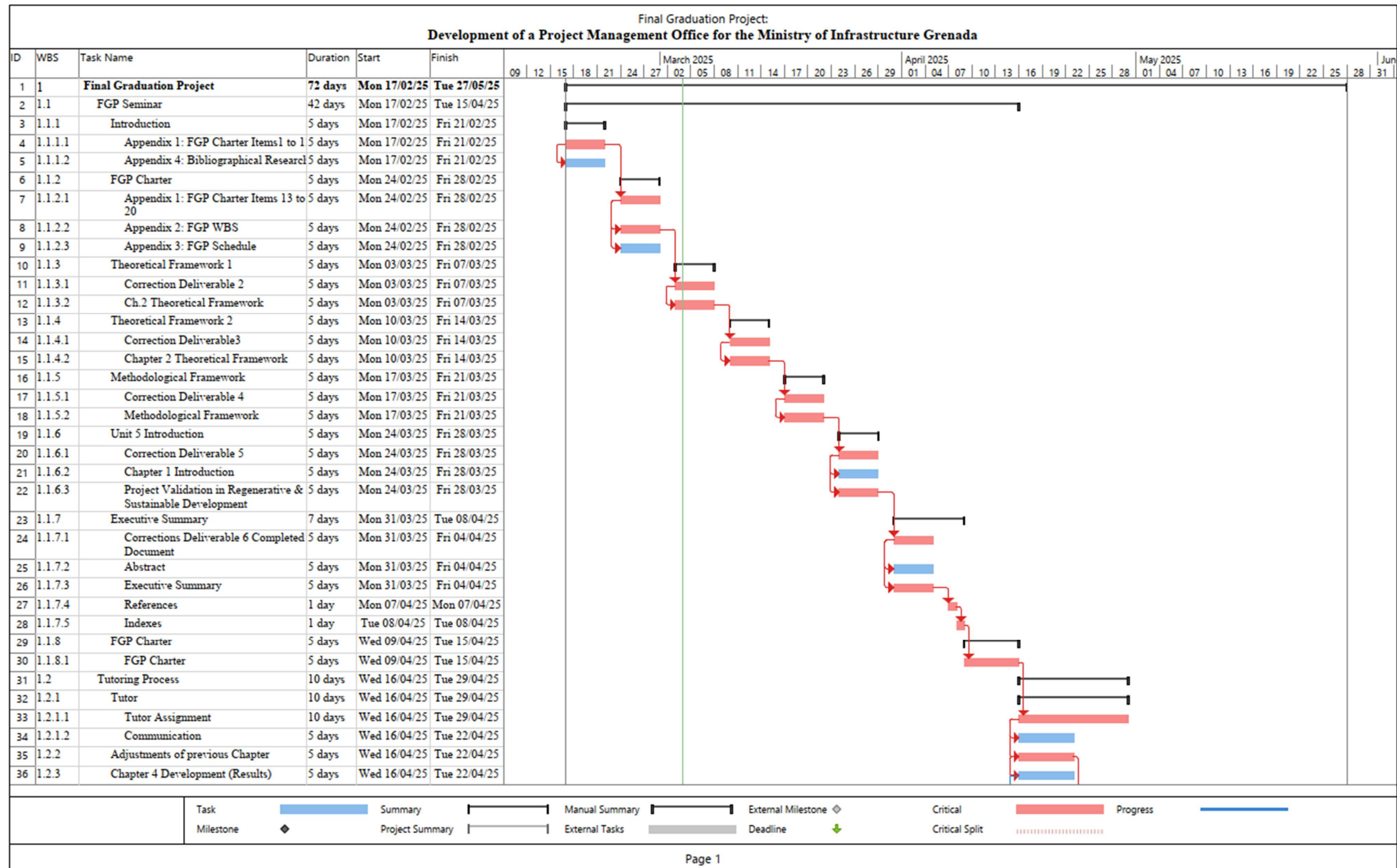
List of the basic concepts to be included in the document.

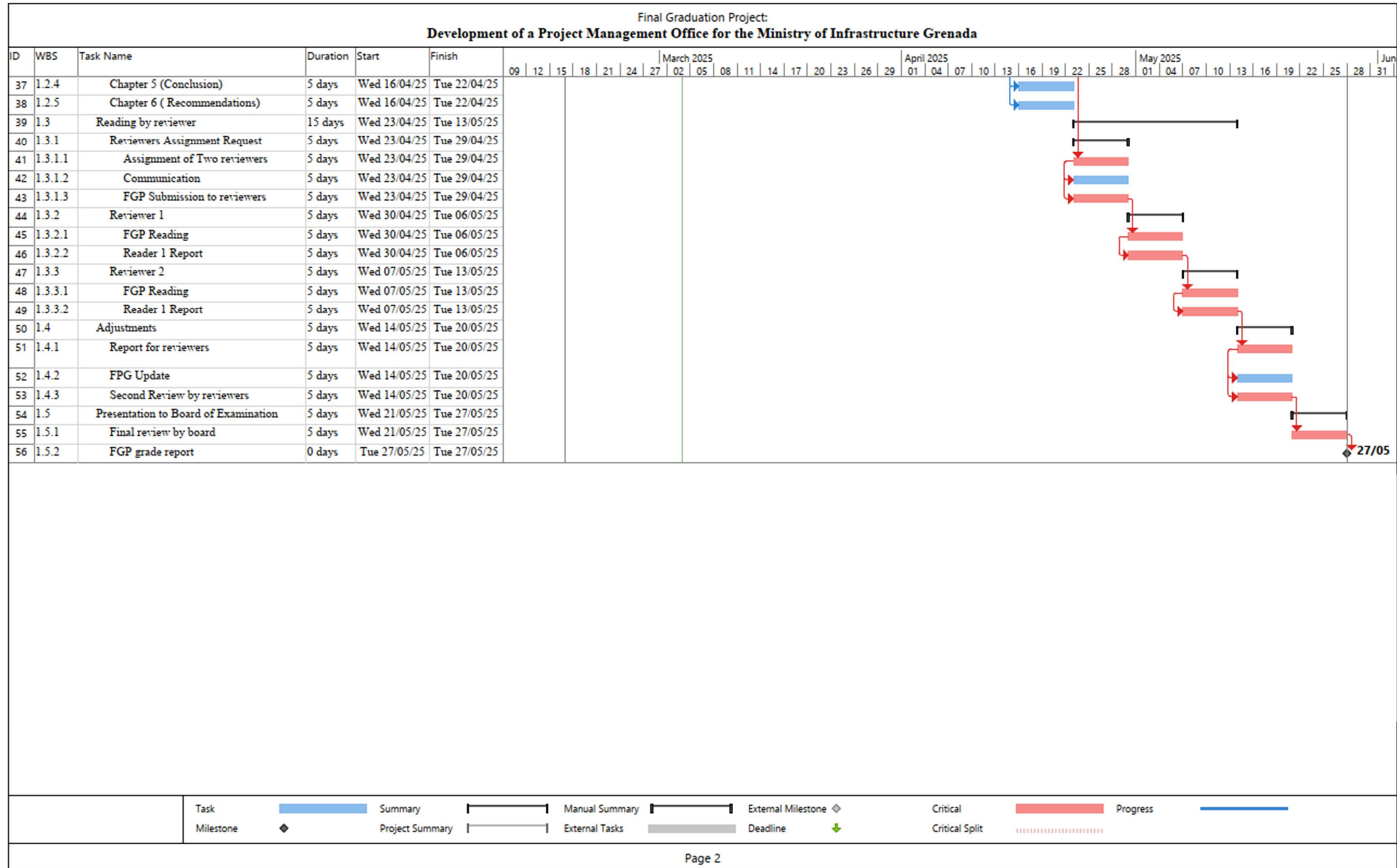
1. Project Management Office (PMO)
2. Project Management (PM)
3. Maturity Level
4. Organizational Performance
5. Organizational Structure
6. Resource Management

8.2 APPENDIX 2: FGP WBS



8.3 APPENDIX 3: FGP SCHEDULE





8.4 APPENDIX 4: PRELIMINARY BIBLIOGRAPHICAL RESEARCH

Government of Ireland. (2020). *Public Service Project Management Handbook*.

The handbook provides a standardised step-by-step framework for a phased approach to the proposal, initiation, planning, execution and closure of projects within the Public Service. It is based on proven models currently in use across the Public Service, on recognised best practices in the discipline of project management and international standards.

Hussin Mohamed Hassan, M. (in press). Impact of PMO as Strategic practice Improving program, projects management performance. *Journal of University Studies for Inclusive Research*, 1(6), 1236–1276. <https://usrij.com/wp-content/uploads/2021/02/Impact-of-PMO-As-Strategic-Practice-Improving-Program.pdf>

This paper presents a systematic and detailed study which was carried out in a non-contrived setting to determine the impact of strategic practices in PMO to improve programs and projects performance applied in Egypt (construction projects) international corporation programs and organizations by using qualitative and quantitative research tools in Egypt.

Ichsan, M., Sadeli, J., Jerahmeel, G., & Yesica, Y. (2023). The role of project management office (PMO) manager: A qualitative case study in Indonesia. *Cogent Business & Management*, 10(2). <https://doi.org/10.1080/23311975.2023.2210359>

This study uses descriptive qualitative research methodology by performing three main activities. First, determining the functions of PMO that were derived from 70 papers.

Second, making the pre-FGD survey based on the findings from the literature review of the functions of PMO. Third, focus group discussion (FGD) to discuss, and validate the result of the pre-FGD survey, and determine the role of PMO manager. It concludes that there are seven functions of the PMO: knowledge management/repository function, supporting role, strategic alignment, governance control, enablers for project performance, innovation, and organizational performance.

Khalema, L., Van Waveren, C., & Chan, K. (2015). The Relationship Between Project Management Office Maturity and Organisational Project Management Maturity: An Empirical Study of The South African Government Infrastructure Departments. *The South African Journal of Industrial Engineering*, 26(3). <https://doi.org/10.7166/26-3-1021>

This study examines the relationship of PMO maturity and the nine knowledge areas that describe Organisational Project Management (OPM) by collecting data from 129 PMO executives, staff, and project managers in South African Government Infrastructure Departments (SAGID) using a structured questionnaire. The results show that a PMO's 'strategic' maturity has the highest impact on all nine areas of OPM

Niema, O. (2021). Implementation of Project Management Maturity Model to Improve The Efficiency of Activity of Local Self-Governments. *Society Integration Education Proceedings of the International Scientific Conference*, 6, 439–448. <https://doi.org/10.17770/sie2021vol6.6479>

This article details that the introduction of the maturity model provides an opportunity for organisations to choose an adequate strategy for process improvement in the relevant field and helps to create a methodological basis for the improvement of the overall activity.

Assessing the project management maturity level of a local self-government body) allows for the determination of the degree of its readiness for effective management of activity and development based on the project approach.

Nikolaenko, V., & Sidorov, A. (2023). Assessment of project management maturity Models strengths and weaknesses. *Journal of Risk and Financial Management*, 16(2), 121. <https://doi.org/10.3390/jrfm16020121>

The article authors conducted a critical analysis to identify the strengths and weaknesses of the most popular project management maturity models. Based on the analysis, it was found that the most developed maturity models are based on international codes of knowledge of project management. Most maturity models ignore the presence of structural and infrastructural elements, such as a workplace, the necessary equipment and software, the availability of professional standards, instructions, regulations, etc. It was also revealed that there are no processes for assessing the effectiveness and efficiency of using the best practices in the maturity models

Pinto, G. O., Mello, L. C. B. D. B., & Spiegel, T. (2020). Best Practices in Implementing a Project Management Office: A Systematic Review of The Literature. *Systems & Management*, 448–463. <https://doi.org/10.20985/1980-5160.2019.v14n4.1580>

This article presents a review of the best practices for project management office implementation, furthermore, the research allowed for identification of PMO's data inclusive of the challenges to implementation and success factors

Project governance and Project Management Office (PMO): View as single page | OpenLearn. (n.d.). <https://www.open.edu/openlearn/mod/oucontent/view.php?id=27294&printable=1>

Here this article introduces one to the important Project Management topic of project governance and how a Project Management Office can support governance. Project governance may be highly formalised, within the organisational governance, for large projects, or programmes or portfolios of projects.

Rabechini, R., Jr, Abarca, E. a. M., Salcedo, N. U., Saldaña, C. J. P. H., & Paiva, D. C. (2022). Stakeholder Management and Project Management Office: Effect on Project Results. *Revista De Administração De Empresas*, 62(6). <https://doi.org/10.1590/s0034-759020220606>

This study assesses the positive influence of stakeholder management on project results, specifically on the likelihood of concluding projects within the predicted time and cost, together with the moderating effect of PMOs.

Sandhu, M. A., Ameri, T. A., Shahzad, A., & Naseem, A. (2024). The role of project management office in the implementation of strategic plans in project-based organisations. *PLoS ONE*, 19(7), e0306702. <https://doi.org/10.1371/journal.pone.0306702>

This study aims to identify and test the ability of PMO roles in implementing the strategic plan of the organization. This research adopted survey-based quantitative research. Additionally, the methodologies for the development of project management, monitoring and controlling project performance, organizational learning, monitoring and controlling project performance, and improving organization structure and communication were the top five PMO roles involved in the execution of strategic plans, according to the results.

Tumi, O. A. (2020). The importance of Project Management Office (PMO) implementation in governmental organizations. *International Journal of Scientific & Engineering Research*,

11(2229–5518),

412–423.

<http://www.ijser.org>

The purpose of this research involves an exploration of the importance and value of a PMO in the governmental organization, and guidelines to assist medium to large organizations in the implementation thereof. Problems continue to prevail in medium to large organizations when there is a conspicuous absence of a PMO. The governmental organizations recognize that "strengthening program and project management is critical to the successful achievement of Government priorities, the management of public finances and the delivery of public services.

8.5 APPENDIX 5: OTHER RELEVANT INFORMATION

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Costa Rica

August 21, 2025

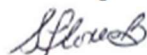
Re: Philological Review of Final Graduation Project submitted by Tiffani Donald in partial fulfilment of requirements for a Master's Degree in Project Management (MPM)

Dear Academic Tutor,

With this letter, I confirm that I have reviewed the Final Graduation Project (FGP) submitted by MPM candidate Tiffani Donald entitled "Development of a Project Management Office for the Ministry of Infrastructure Public Utilities Civil Aviation and Transportation, Grenada."

I hereby confirm that Tiffani Donald has made all the corrections to the FGP as I have advised as philologist. It is my professional opinion that the document meets the literary and linguistic standards in written English as required for the MPM by the Universidad para la Cooperación Internacional.

Warm Regards,



Stephanie Flores Bradshaw

Philologist

EVALUATION OF THE NEED FOR A PROJECT MANAGEMENT OFFICE WITHIN THE MINISTRY OF INFRASTRUCTURE

This questionnaire is designed to support a comprehensive assessment of project management practices within the Ministry of Infrastructure. The primary purposes are:

1. To **identify and evaluate the current deficiencies and operational gaps that have arisen due to the absence of a centralized Project Management Office (PMO)**. This includes examining project performance challenges, coordination issues, and inefficiencies that impact the successful delivery of infrastructure projects.
2. To **gather insights and stakeholder input on the most appropriate PMO structure for the Ministry, as well as to inform the development of relevant Key Performance Indicators (KPIs)**. These KPIs will be used to measure and ensure the effectiveness, efficiency, and strategic alignment of the proposed PMO.

Your feedback is essential in developing a PMO model that meets the specific needs of the Ministry and contributes to improved project outcomes, transparency, and accountability. All responses will be treated with confidentiality and used solely for the purpose of research.

Indicates required question|

1. What is your current role within the Ministry? *

Mark only one oval.

- Engineer
- Technician
- Project Manager
- Senior Management
- Administration / Clerical

2. What is your gender? *

Mark only one oval.

- Male
- Female

3. How many years have you been employed with the Ministry? *

Check all that apply.

- Less than 2 Years
- 2 - 5 Years
- 5 - 8 Years
- More than 8 Years

4. Are you familiar with the term ' Project Management Office'? *

A project management office is a management structure that standardises the project-related governance processes and facilitates the sharing of resources, methodologies, tools and techniques. Its primary role is to manage and oversee several projects under the organisation.

Mark only one oval.

Yes

No

5. What is your role in the implementation of the Ministry's projects? *

Check all that apply.

Functional Manager

Project Management / Supervision

Design / Technical Support

Administrative Support

Other

6. Projects in the Ministry always experience cost overruns. *

Mark only one oval.

Strongly Agree

Agree

Neutral

Disagree

Strongly Disagree

7. Projects in the Ministry always experience time overruns. *

Mark only one oval.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

8. In your opinion what are the primary causes of delays and cost overruns? *

Select all that apply

Check all that apply.

- Poor resource allocation
- Lack of a centralised project unit
- Poor project planning and supervision
- Lack of standardised processes
- Inadequate risk management
- Insufficient reporting and monitoring
- Other: _____

9. Do you agree that the absence of a centralized PMO has negatively impacted project success? *

Mark only one oval.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

10. Which of the following deficiencies have you observed due to the lack of a PMO? *

Select all that apply

Check all that apply.

- Duplication of efforts
- Inconsistent project outcomes
- Poor communication across departments
- Lack of visibility into project status
- Difficulty in aligning projects with strategic goals
- No clear ownership or accountability

11. In your opinion do you believe the Ministry would benefit from establishing a PMO? *

Mark only one oval.

- Yes
- No
- Maybe

12. Do you think the current structure allows for adequate coordination between Ministries involved in project planning and implementation? *

Mark only one oval.

- Yes
- No
- Partially

13. How should the PMO be positioned within the Ministry's organizational structure? *

Mark only one oval.

- As a unit within the Technical Department
- As an independent unit within the Ministry reporting to Senior Management
- Embedded in each Ministry but coordinated centrally within the Ministry of Infrastructure

14. What key functions do you believe a PMO should fulfill within the Ministry? *

Select all that apply

Check all that apply.

- Project oversight and governance
- Development of standardized methodologies
- Training and support for project staff
- Portfolio management and strategic alignment
- Centralized reporting and risk management
- Other: _____

15. Would you support the creation of a PMO within the Ministry? *

Mark only one oval.

- Yes
- No

16. In your view, which PMO structure would best suit the Ministry of Infrastructure? *

Mark only one oval.

- Supportive (consultative, provides templates best practices and training. Degree of control is low)
- Controlling (provides support and enforces compliance with standards. Degree of control is moderate)
- Directive (manages projects directly. Degree of control is high)

17. What level of authority should the PMO have over projects in the Ministry? *

Mark only one oval.

- Advisory only
- Moderate (review and approve key deliverables)
- Full control (own and manage all projects centrally)

18. What functions should be centralized under the PMO? *

Select all that apply

Check all that apply.

- Project planning and scheduling
- Budget management and cost control
- Performance reporting
- Risk and issue management
- Change control
- Training and capacity development
- Strategic portfolio management

19. What challenges do you foresee with implementing a centralized PMO? *

Select all that apply

Check all that apply.

- Resistance to change
- Loss of departmental autonomy
- Lack of skilled personnel
- Budget constraints
- Misalignment with current practices
- Other: _____

20. How important is it to measure the performance of the PMO? *

Mark only one oval.

- Extremely important
- Important
- Neutral
- Not important

21. Which key performance indicators should be used to measure the PMO's performance? *

Select all that apply

Check all that apply.

- Percentage of projects delivered on time
- Percentage of projects delivered within budget
- Compliance with project methodology
- Benefits realization (achievement of strategic goals)
- Number of projects successfully completed
- Staff capacity built through PMO initiatives
- Other: _____

Ministry of Infrastructure Maturity Assessment

Based on the Rubric provided, select the maturity level of each knowledge area with consideration of your project management experience within the Ministry of Infrastructure.

* Indicates required question

1. How many projects do you manage at a time? *

Mark only one oval.

- No more than 1
- More than 1 but less than 5
- More than five but less than 10
- More than ten

2. What is the typical Magnitude and Complexity of your project? *

Mark only one oval.

- Small projects only
- Small to Medium size
- Medium to Large size
- Capital Project
- All of the above

3. Who is the the funding agency of your project *

Mark only one oval.

- Local / Government of Grenada
- External Donor (Development Banks)
- All of the above

In your opinion select the maturity level of the various knowledge areas

4. *

Project Integration Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

5. *

Project Scope Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

6. *

Project Schedule Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

7. *

Project Cost Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

8. *

Project Quality Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

9. *
Project Resource Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

10. *
Project Communication Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

11. *
Project Risk Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

12. *

Procurement Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process

13. *

Procurement Stakeholder Management

Mark only one oval.

- Level 1 - Initial process
- Level 2 Structured Process and Standards
- Level 3 - Organizational Standards and Institutionised Process
- Level 4 - Managed Process
- Level 5 - Optimised Process